

NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

DM 05-172

GENERIC INVESTIGATION INTO UTILITY POLES

WORK PRODUCT

TOPIC 2

**JOINT OWNERSHIP RESPONSIBILITIES FOR
THE OPERATION AND MAINTENANCE
OF UTILITY POLES**

August 29, 2007

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DM 05-172 Generic Investigation into Utility Poles

**Work Product – Topic 2:
Joint Ownership Responsibilities for the Operation and Maintenance of Utility Poles**

I. Introduction

A. Scope of Technical Session Discussions

This work product identifies issues, summarizes discussions, analyzes positions of the parties, and outlines conclusions and recommendations for the Commission to consider regarding joint ownership responsibilities for the operation and maintenance of utility poles. Participants in the March 30, 2006, April 20, 2006 and May 30, 2006 technical sessions on Topic 2 included:

Public Service Company of New Hampshire (PSNH)
National Grid (National Grid)
Unitil Energy Systems (Unitil)
Verizon New Hampshire (Verizon)
New Hampshire Local Government Center (NHLGC)
Municipalities of Exeter, Hanover, Keene, Newmarket, Portsmouth, Raymond,
Salem, Seabrook and Stratham
New Hampshire Department of Transportation (NHDOT)
New Hampshire Electric Cooperative (NHEC)
TDS Telecom (TDS)
New Hampshire Telephone Association (NHTA)
The Office of Consumer Advocate (OCA)
Staff

Discussions covered six subtopics: (1) adequacy of resources; (2) inspection and maintenance of joint poles; (3) timely placement of poles; (4) double poles; (5) intercompany communication and notification; and (6) pole line trimming. Issues associated with these areas are identified at the beginning of sections II, III, IV, V, VI and VII, respectively. The writing group for Topic 2 consisted of Staff and Unitil. All parties had an opportunity to submit comments on the draft work product. Staff made final edits.

B. Joint Ownership and Joint Use Agreements

The ownership and use of utility poles within the public right of way is a fundamental issue in this proceeding. With few exceptions, utility poles installed for the distribution of electricity and communications services are jointly owned by an electric utility and an incumbent local exchange carrier, but the space on the poles may be occupied by multiple parties. Other parties attaching to poles include municipalities, cable TV and broadband service providers, competitive local exchange carriers and other telecommunication service providers.

The division of ownership and responsibilities between the electric companies and incumbent local exchange carriers is typically determined through “joint ownership” agreements (JOAs), through which both parties own a part or half interest in each pole in a particular maintenance area. Third parties wishing to attach to poles do so through license agreements with the pole owner or owners, generally paying an attachment fee. Less prevalent are “joint use” agreements (JUAs), where the party placing a pole or anchor owns 100 per cent of that pole or anchor in a particular maintenance area, and all attachees, including the other party to the JUA, attach and pay related fees through license agreements. Verizon currently has JUAs with the New Hampshire Electric Cooperative and the Connecticut Valley Electric Company (now part of PSNH). This report will focus on joint ownership agreements, as reflected in technical discussions.

Joint use agreements between the electric and telephone companies in New Hampshire date back at least to 1943.¹ The impetus to such agreements was the recognition of the mutual benefits to be gained by the companies through joint planning and construction of new lines. The agreements also allow the parties to share in the capital costs and on-going maintenance requirements of the pole line infrastructure. Specific agreements between Verizon and each of the electric companies today provide for joint ownership or joint use of poles and anchors when and where joint ownership or use is of mutual advantage. There are two elements to each such agreement: 1) JOA or JUA provisions specify the division of rights and obligations of the parties with respect to pole ownership and maintenance; and 2) intercompany operating procedures (IOPs) provide the detailed administrative and operational procedures associated with implementation of the agreement. IOPs are integral to a joint ownership or joint use agreement. Under a JOA, responsibility for the installation and maintenance of jointly owned poles is divided between the owners into specifically defined geographic areas intended to roughly equalize the number of poles and anchors for which each party is responsible. Geographic areas are defined in the applicable IOPs and referred to as “maintenance areas.” It is generally the intent of a JOA that the telephone and electric companies will jointly own poles where each has a need for ownership, but that each company is individually responsible for placing, removing and maintaining jointly owned poles within its designated maintenance area. In other words, Verizon installs all poles in its designated maintenance areas, and the electric companies install all poles in their designated maintenance areas. Each joint owner is also individually responsible for maintaining all jointly owned poles in its maintenance area in safe and serviceable condition, and

¹ See NHPSC Order No. 4479, 25 NHPSC 206 (1943), authorizing each public utility to transfer to another public utility a part interest in poles and their appurtenances for the purpose of joint use by each utility.

for replacing or repairing poles that become defective or are of insufficient size or strength for existing or proposed attachments.

Throughout this report, references to applicable provisions of specific JOAs, JUAs or IOPs will be cited where appropriate. The agreements and operating procedures are fundamental to the installation, maintenance and ownership of utility poles used for the delivery of electricity and telecommunications services within the public right of way. This work product concerns the performance by each company of its joint ownership responsibilities under those agreements.

C. National Electrical Safety Code

Each utility is subject to the standards set forth in the most current edition of the National Electrical Safety Code (“NESC”)². The requirement to adhere to the NESC is set forth in Commission rules Puc 306.01 Standard Practice on Construction, Operation and Maintenance for the electric companies, Puc 413.01 Construction, Installation and Maintenance of Physical Plant for incumbent local exchange carriers, such as Verizon, and Puc 433.01 for competitive local exchange carriers. The requirement to conform to applicable provisions of the NESC is incorporated into each JOA, as well.³ Provisions governing specific practices for construction, installation and maintenance of poles are set forth in IOPs. While there are differences among the IOPs between Verizon and each of the electric companies, the requirement to conform to the latest edition of the NESC applies across all agreements.

NESC standards cover

basic provisions for safeguarding of persons from hazards arising from the installation, operation, or maintenance of 1) conductors and equipment in electric supply stations, and 2) overhead and underground electric supply and communication lines. It also includes work rules for the construction,

² The most current is the 2007 edition, published August 1, 2006.

³ Refer to Article 5, Construction Standards of the JOAs between Verizon and PSNH, Unitil, and National Grid.

maintenance, and operation of electric supply and communication lines and equipment. NESC standards are applicable to the systems and equipment operated by utilities, or similar systems and equipment, of an industrial establishment or complex under the control of qualified persons.⁴

In this report, references to applicable provisions of the NESC will be cited where appropriate.

II. Adequacy of Resources

Issue

Joint owners must have adequate resources to accomplish their respective joint ownership responsibilities in an efficient and effective manner.

Discussion

Numerous issues raised in discussions of emergency management (Topic 1) and joint pole responsibilities (Topic 2) revolved around utility staffing, work locations, use of contractors, call-out procedures and related matters. It became apparent that adequacy of resources is an underlying concern that affects many aspects of the operation and maintenance of utility poles. The purpose of this section is to examine the role of adequate internal resources, as well as flexibility in obtaining or assigning resources, in ensuring that each pole owner is able to fulfill its joint ownership responsibilities. It is not the intent of this report to define appropriate staffing levels at any of the companies or to draw conclusions about the specific resources necessary to accomplish joint ownership responsibilities. Rather, this section will consider the extent to which adequacy or availability of resources is a contributing factor to the operational and maintenance concerns raised by numerous participants in this proceeding.

Table 1 summarizes the responses of the electric utilities and Verizon to data requests regarding resources available in the year 2005.

⁴ National Electrical Safety Code, C2-2002, Abstract, page i.

Table 1

	PSNH	National Grid	Unitil	Electric Total	Verizon
Total Pole Miles	12,568	852	1,145	14,595	16,634
Garages	18	3	2	23	11
Digger Trucks	15	3	4	22	27
Line Trucks	96	10	15	121	37
Total Trucks	111	13	19	143	64
Line Employees	199	19	26	244	101 avg. ⁵
Change in line employees from 2000 to 2005	+8%	Steady	Steady		-22% ⁶
Use of Supplemental Employees	Yes	Yes	Yes		Limited

With respect to resources available for the performance of regulated business activities, Verizon, with more pole miles than the three electric companies combined, has less than half the garages, trucks, and employees than do the electric companies in the aggregate. Furthermore, while the electric companies routinely use contractors to supplement their workforce when workload exceeds available resources, Verizon makes limited use of outside contractors, consistent with the provisions of its bargained-for labor contracts.

Verizon states that in the past it has prioritized resource allocation decisions between “core” business activities and fiber-to-the-premises (FTTP) work based on customer demand and strategic requirements in an increasingly competitive market. Discussions indicated that Verizon’s non-regulated business activities may have received higher priority with respect to resource allocation than its regulated wireline business. Verizon’s priorities and strategic requirements may not always be consistent with the needs of the electric utilities, electric

⁵ Verizon reported monthly data ranging from 70 to 125 line employees per month during 2005, giving an average of 101 for the year.

⁶ Verizon provided total line employee data at the start of each year from 2000 through 2005. Given the fluctuations noted in footnote 6, the change in employees figure may not reflect staffing changes made during the course of 2005.

customers, telephone customers, municipalities, NHDOT or other parties dependent on pole owners for timely work.

Conclusions and Staff Recommendations

Joint owners share responsibility for the installation, management and maintenance of utility poles. The availability of adequate resources is critical to the fulfillment of those responsibilities. Verizon's performance in carrying out its joint ownership responsibilities has deteriorated as the company has shifted internal resources to adapt to increased competition. The needs of more profitable, non-regulated businesses and the consequent shifting of resources appear to be important contributing factors to concerns raised in the course of this proceeding.

Staff recommends the Commission establish baseline resource levels and clear performance standards to ensure safe and reliable service from all utilities in accordance with regional and national standards.

III. Inspection and Maintenance of Joint Poles

Issue

Pole-owning utilities are required to maintain all poles in safe and serviceable condition to safeguard workers and ensure public safety. Specifically, each utility must maintain a program to inspect and treat all jointly owned poles in their respective maintenance areas, and must replace poles that become defective, or are of insufficient size or strength for existing or proposed attachments.

Discussion

Requirements governing custody and maintenance of jointly owned poles and anchors are set forth in IOPs.⁷ Responsibilities are divided by “maintenance areas.” The custodial owner is responsible for maintaining all jointly owned poles in its maintenance area in safe and serviceable condition in accordance with appropriate industry codes and government requirements, including the NESC. That owner is also responsible for the inspection of poles and the replacement, reinforcement or repair of poles that are defective or are of insufficient size or strength for existing or proposed attachments.

Each joint owner is responsible for the inspection of jointly owned poles within its maintenance area at prescribed intervals. A 10-year inspection interval is generally the norm. The Verizon-PSNH and Verizon-Unitil IOPs, for example, specify that poles must be inspected at or before the age of 20 years, and must be re-inspected at intervals not to exceed 10 years.⁸ The Verizon-National Grid IOP specifies that pole inspections be done on a regularly scheduled basis, and, as a general rule, each owner shall inspect 10 percent of the poles each year within its respective maintenance area.⁹ Each company bears the costs of inspection and treatment of poles in its respective area.

National standards governing inspection and maintenance programs are set forth in NESC Rules 214, 253, and 261. NESC Rule 214.A.2 requires that inspections be performed at intervals as experience has shown to be necessary, based on the equipment involved as well as the particular location and environment, and may be performed either as a stand-alone operation

⁷ IOP #4 between Verizon and PSNH, effective 10/1/1994; IOP C between Verizon and National Grid, effective September 25, 2001; and IOP #4 between Verizon and Unitil, effective 11/1/1996.

⁸ See IOP #6 between Verizon and PSNH, effective October 1, 1994; and IOP #16 between Verizon and Unitil, effective November 1, 1996..

⁹ IOP G between Verizon and National Grid, effective September 25, 2001

or while performing other duties. Rule 214.A.3 requires that practical tests be performed on poles and equipment to determine maintenance needs. Rules 253 and 261 specify the strength requirements and overload factors of structures when installed and when replaced. Minimum strength requirements at replacement determine the on-going serviceability of the pole. In other words, if inspections reveal defects such as decay, infestation or damage, Rules 253 and 261 set forth standards for determining whether a pole retains sufficient strength for existing or proposed attachments, or whether replacement or rehabilitation is required. Individual company practices and internal standards for carrying out NESC-prescribed inspection and maintenance programs vary slightly in the details.

PSNH's circuit patrol program focuses on the reliability of physical plant and provides for an inspection of "backbone" circuit poles and pole-related hardware every four years. The company inspects poles on non-backbone circuits only on an as-needed basis. It performs practical tests during pole inspections, maintains records and tracks defects until corrected, and replaces hazardous poles immediately.

National Grid follows a pole inspection program that is consistent with the provisions of its IOP with Verizon and designed to conform with NESC requirements. The company generally follows a 10-year inspection interval for all of the joint poles in its territory, uses practical tests to identify decay and determine the remaining strength of the pole, records all defects found, evaluates treatment methods, and rejects, treats or reinforces poles as appropriate. Public safety or imminent failure issues are corrected as quickly as possible; all other findings are logged and corrected within a reasonable timeframe. National grid also records deficiencies and documents completion progress in a spreadsheet maintained by the divisional overhead coordinator. Defects are tracked until corrective action has been completed and documented.

Unitil also has a pole inspection program that is consistent with the provisions of its IOP with Verizon and designed to conform with NESC requirements. Unitil inspects poles on a 10-year interval, uses practical tests to determine the remaining strength of the pole, records all defects found, and “rejects” poles with insufficient remaining strength as defined by the NESC. Poles that are rejected are scheduled for replacement. Records are maintained until such poles have been replaced. Unitil replaces hazardous poles immediately.

Verizon performs pole inspections on an ongoing basis in conjunction with planned work, but not on a defined schedule. According to Verizon, over a 10 year period the majority of its poles are inspected as a result of routine work practices. The company does not specifically document inspections in the normal course of business. The practical tests carried out by Verizon technicians are designed to identify “hazardous conditions” to ensure technician and public safety. Those tests, however, do not provide methods to evaluate the remaining pole strength or the on-going serviceability of poles not identified as hazardous, as required by the structural safety requirements of the NESC. Although Verizon asserts that it performs visual inspections in the ordinary course of line work, it provided no indication that it conducts a systematic practical inspection program at defined intervals that meets the requirements of the NESC or its IOPs with the electric companies. Verizon replaces all poles found to be hazardous immediately, but does not keep specific records of inspections or of deficiencies found. Verizon asserts that it records and tracks non-hazardous defects when corrected.

The following table summarizes data reviewed under this subtopic:

Table 2

	IOP/NESC Standard	PSNH	National Grid	Unitil	Verizon
Pole Inspection Program / Practice		Circuit Patrol Policy ED-3018	Standard MS 2015	Distribution Inspections Operations Bulletin OP6.00	Verizon Training Course TT10098
Initial Inspection Interval (IOP)		20 years	15 years	20 years	15 years w/N. Grid; 20 years w/PSNH & Unitil
Subsequent Inspection Interval (IOP)		10 years	10 years	10 years	10 years
Present Inspection Interval		4 years	Generally 10 years	10 years	Ongoing with planned work
Visual Test		Yes	Yes	Yes	Yes
Practical Test	Above & below ground inspection for remaining strength	Yes	Yes, when applied	Yes	Partial ¹⁰
Documentation of inspections		Yes	Yes	Yes	No
Prompt replacement of hazardous poles		Yes	Yes	Yes	Yes

Conclusions and Staff Recommendations

Staff believes that a pole inspection process conducted in accordance with NESC guidelines is important to ensure public safety. Certain discrepancies among the various utility practices merit closer examination. Staff recommends the Commission require each utility to comply with the guidelines set forth in the NESC with respect to pole inspections and

¹⁰ Verizon performs a prod test at the base of a pole to determine whether the pole has deteriorated.

replacement and to report results to Staff on an annual basis. Staff also recommends that Verizon begin recording and tracking defects in compliance with NESC Rule 214.

IV. Timely Placement and Removal of Poles

Issue

Timely cooperation on the part of joint owners is critical to ensure that each party can meet its utility obligations and ensure safe and reliable service to the public.

Discussion

The importance of timely pole replacement is reflected in the volume of claims by customers, contractors, state and municipal government representatives, and other parties regarding untimely placements. In addition, the electric companies have expressed concerns that pole placements in Verizon maintenance areas are subject to unreasonable delays that can affect the timely provision of electric service. Since pole installations are part of the critical path for any construction job, overall project delays caused by untimely pole placements can affect a utility's ability to deliver service. In some cases, pole placement delays caused by the inaction by one joint owner may jeopardize the physical plant of the other joint owner or cause unnecessary costs to be borne by the other owner.

Poles may be placed (installed) for various reasons including new customer requests, maintenance replacements, roadway projects that require lines to be moved, upgrades of electric lines, including voltage conversions and reconductoring, or increases in pole height where there is insufficient height for new attachments. The primary focus of this topic is the placement of poles for reasons other than new customer requests or state or municipal road projects. Pole placements, replacements and removals associated with state or municipal road projects, and other types of projects in the public right of way will be covered more fully under Topic 3 –

Utility Relationships with Government Entities. Pole placements associated with new service requests and other types of customer requests will be covered more fully under Topic 4 – Retail Customer Relationships.

Each utility maintains procedures to prioritize, schedule and manage pole placements, while ensuring that pole set lead times are kept to a minimum. The electric companies provided information in this proceeding indicating that the majority of instances where pole placements are not accomplished in a timely manner occur in Verizon's maintenance areas.

The electric utilities and Verizon have developed two very different scheduling paradigms for pole sets. The electric companies base work force assignments on scheduling commitments, adding supplemental workers as needed to meet those commitments. Verizon, on the other hand, assigns its work force as a function of specified technician hours available in any given 30-day scheduling period, reprioritizing and rescheduling its commitments based on available technician hours. In addition, Verizon indicates that it has limited ability to use outside labor forces, due to its bargained-for labor agreements. As a result, Verizon routinely extends work completion dates beyond the initial customer service or need dates.

The electric utilities provided information which they assert identifies numerous delays in pole placements in Verizon maintenance areas, often for many months. Few, if any, such delays in electric maintenance areas were reported. The impact of pole placement delays on a joint owner may include any or all of the following:

- a) The joint owner's inability to respond in a timely manner to customer requests or needs;
- b) The jeopardization of the other joint owner's facilities as a result of delays in necessary construction (*e.g.*, upgrades to meet expected load demand); and/or

c) An unnecessary increase in costs caused by a delay of the other party, which ultimately are passed along to customers.

Verizon has stated that it cannot permit electric companies to place poles in its maintenance areas due to restrictions in its labor agreements. Such a policy can lead to delays that affect the joint owner’s operations. In addition, the joint ownership agreements do not provide for the financial responsibility of either party for additional costs incurred due to delays caused by the other party. As a result, costs may be shifted to the ratepayers or shareholders of one utility rather than shared by those of both joint owners.

The following table summarizes the key data reviewed under this subtopic:

Table 3

	PSNH	National Grid	Unitil	Verizon
Time to set solely-owned pole	7 work days	5-10 days	0-10 work days	Not tracked
Time to coordinate design of joint pole set	3-4 work days	Not stated	5-10 work days	Not tracked
Time for customer completion of requirements (easement, trim, etc.)	No time estimate given	approximately 40days (not under the control of N. Grid)	Not stated	Not tracked
Avg. time total to set joint pole	7-10 work days	5-10 days	15 work days	39 days ¹¹
Average actual time joint owner takes to set pole	96 tracked projects averaged 139 days	90 days average; ten specific projects averaged 120 days	Not recorded but VZ quotes 8 weeks in field	Not tracked
Schedule governed by	Customer need date	Customer & N. Grid engineer need date	Customer & other need dates	Customer need date & available hours of Verizon labor pool

¹¹ This is a figure supplied by Verizon representing the time to set a service pole as Verizon does not track times to set other poles in the normal course of business.

Work prioritized by	Customer need date	Customer & N. Grid engineer need date	Need dates & project expectations	Customer need date
Additional external resources available to fulfill schedule	Option to use contractors	Option to use contractors	Option to use contractors	None
Can joint owner set poles in partner's set area	Occasion does not arise	Occasion does not arise	Occasion does not arise	No, if Verizon has a customer request
Delay costs reimbursed by cost-causing joint owner?	No, not covered in joint agreements	No, not covered in joint agreements	No, not covered in joint agreements	No, not covered in joint agreements

Conclusions and Staff Recommendations

The joint ownership agreements do not define specific timeframes for the placement of jointly owned poles and offer little in the way of remedies or resolution of disputes resulting from delays. A fundamental premise of joint ownership of poles is that owners will cooperate with each other so that both may fulfill their respective obligations. To the extent the owners do not cooperate or agree on the responsibility and timing for pole placements, each has the right to seek redress in court or to renegotiate the terms of the ownership agreement.

Staff posits that under its general mandate to ensure safe and adequate utility service, the Commission has jurisdiction to resolve disputes over alleged unreasonable delays caused by one pole owner that may adversely affect the ability of another utility to provide safe and reliable service to customers. Staff recommends that Verizon be required to track on a consistent basis the time it takes to set poles.

V. Double Poles

Issue

When an existing pole is replaced by a new pole, both poles must remain in-service until all attachments have been transferred from the old pole to the new pole. A delay in the transfer of facilities contributes to delays in the removal of the old pole, resulting in a “double pole.” The reported proliferation of double poles within public rights of way raises concerns for public safety as well as aesthetics.

Discussion

Poles may be replaced for a variety of reasons, including age, defects, deterioration, roadway relocations and insufficient height for new attachments. When an existing pole is replaced, all parties on the pole, including cable companies and municipalities, must transfer their facilities to the new pole before the old pole can be removed. For practical reasons, the transfer of facilities begins with the facilities located at the top of the pole and proceeds sequentially down the pole.¹² Electric facilities are normally positioned at the top of the pole and are therefore the first to be transferred. Municipal, cable TV, competitive telecommunications providers, and other licensee attachments must be transferred next, followed, finally, by the incumbent telephone company’s facilities. A delay in the transfer of facilities delays the removal of the old pole, resulting in a “double pole” situation.

Municipalities are concerned that the proliferation of double poles within public rights of way represents a threat to public safety, as well as an eyesore within their communities. There is a general perception that this problem is growing worse. According to data responses in this proceeding, the number of double poles is increasing, as is the length of time the old poles

¹² Cables that are lower on the pole cannot be transferred to the new pole while existing attachments remain above, as the cables and service drops located above may interfere with the transfer of the lower facilities.

remain in service before they are removed. Municipalities involved in the proceeding reported cases of double poles remaining in existence for years.¹³

Conclusions and Staff Recommendations

Ineffective communication and notification procedures among utilities, municipalities and third party attachers regarding the transfer of pole attachments can be a significant contributing factor to the untimely removal of poles and double poles. The procedures themselves will be more fully explored in the following section.

Regardless of existing communication and notification problems, utilities are not relieved of their obligation to complete transfers and removals in a timely manner. Both Verizon and the electric utilities share in the responsibility for the untimely transfers and pole removals causing the proliferation of double poles in the state. However, information concerning poles that should have been removed under a 1996 agreement between Verizon and Staff but were not, as well as the large number of poles in Verizon's own maintenance areas for which it is responsible,¹⁴ suggests that Verizon bears responsibility for a majority of the double poles in the state.

Although Verizon has made an effort to reduce its double pole backlog, at the current planned rate of 70 poles removed per month, it will take Verizon over eight years to clear the current list of double poles. Staff recommends the Commission direct Verizon to increase the number of double poles it clears each year so that the backlog is cleared by year-end 2010.

¹³ NB: Verizon reported to Staff after the conclusion of discovery and technical sessions that it removed nearly 2,400 poles in 2006, considerably bettering the rate of removal it had forecasted in technical session discussions.

¹⁴ Verizon is also solely responsible for both the coordination of transfers and removal of poles in National Grid's maintenance areas.

VI. Intercompany Communication and Notification

Issue

Ineffective communication and notification procedures can contribute significantly to delays in transfers and timely pole removal.

Discussion

The timely placement and removal of poles requires effective communication procedures between the joint owners and other attaching parties to ensure that work involving all parties is completed in a timely manner. The communication and notification procedures used by the joint owners are defined in the IOPs between Verizon and each of the electric companies. There are generally two types of notification between the electric companies and Verizon that are of interest in this proceeding:

1. Coordination of company requests for joint work to be performed and notification of pole setting; and
2. Coordination of transfers involving the facilities of attaching parties.

In the first case, an Exchange of Notice (EON) process is used by the joint owners to request work, including new pole sets, and to request or initiate joint ownership. In a typical situation, one joint owner will notify the other that it has received a customer request for service requiring the installation of a new pole, either in its own maintenance area or in the area of the other joint owner. The company receiving the EON must decide whether it desires ownership in the new pole. If so, responsibility for setting the pole will be determined by the defined maintenance areas of the joint owners. The EON may also be used to notify the co-owner that a pole has been set or to request or coordinate other types of work, including tree trimming.

The second type of communication involves the coordination of transfers when existing poles are replaced. As previously discussed, poles may be replaced for a variety of reasons including maintenance replacement, roadway relocations, or insufficient height for new attachments. When an existing pole is replaced, the joint owners must coordinate the sequential transfer of all attachments. The communication procedures used by the joint owners to coordinate such transfers vary. Any breakdown in the coordination process may contribute to delays in the removal of the old pole and the proliferation of double poles.

Even though the IOPs designate the Exchange of Notice, or EON, as the official process for communicating the need for joint pole work, it is currently used primarily for administrative matters, such as billing. Use of the EON has generally been replaced by less formal communication methods for purposes of coordinating joint pole work.

The coordination of facility transfer work is another matter. With the exception of National Grid, which is not responsible for coordinating the transfer of attachments under its IOP with Verizon, it appears that joint owners do not always coordinate transfers and communication in a manner consistent with their respective IOPs. Further, the lack of a uniform process may contribute to the larger issue of double poles. Communication reportedly is often inconsistent and uncoordinated. Effective communication between the joint owners and other attaching parties is fundamental to ensuring that work is completed in a timely manner.

Although the IOPs address communication and notification obligations between the parties, in some cases those obligations appear to be incomplete. There may be no specified method of communicating transfer requests, for example, or of communicating that an old pole is ready for removal. In the case of one IOP, there are no specified timeframes to accomplish transfers.

Discussion of solutions to improve communication between joint owners focused on the creation of an electronic transfer notification database to be shared by pole owners and licensees. Verizon comments that its recent move to such a system with PSNH has provided significant improvement over the prior process and that setting up a similar program for transfer work between other pole co-owners would benefit all attachers. Verizon is presently using the system for pole transfers, pole installation notifications and documentation of trimming requests. Reservations were expressed as to the level of commitment among all parties to actively participate in the operation of such a system.. Staff believes that an electronic notification program such as the one Verizon uses with PSNH would improve the management of transfers.

Conclusions and Staff Recommendations

Staff recognizes that the specific methods of communication outlined in the IOPs are generally being ignored. Informal methods of communication, while satisfactory for initial design coordination, are not reliable for the efficient coordination of transfers. Staff recommends that utilities explore existing web-based transfer notification systems, such as that currently used by Verizon and PSNH, and work cooperatively to choose and implement a system that standardizes and improves notification and coordination among pole owners and licensees.

VII. Pole Line Trimming

Issue

The division of joint owner responsibilities with respect to maintenance trimming is unclear and gives rise to concerns of unequal cost-sharing.

Discussion

The electric companies and Verizon disagree as to each joint owner's responsibilities for tree trimming along pole lines and associated costs. Joint ownership agreements all include a specific IOP covering tree trimming of joint lines.¹⁵ Although the specific language may vary among agreements, the IOPs are virtually identical with respect to certain key points, such as the following:

Maintenance trimming shall be done on a joint basis when both parties have a need. When it is agreed that both parties will benefit from such Joint Tree Trimming the division of cost will be 75% Electric Company and 25% Telephone Company.

Heavy storm work such as hurricanes, wet snow, tornadoes, and ice storms will be handled immediately without prior review. The parties agree to reciprocal acceptance of each other's contractors for heavy storm work on a 50/50 basis.

The removal or topping of trees that present a hazard to both parties or which threaten both parties' plant shall be done jointly at a 50/50 division of cost.

Construction trimming shall be surveyed in the field and a determination made as to whether both parties have a need. The division of cost will be 60% Electric Company and 40% Telephone Company.¹⁶

The major disagreement centers on the joint owners' understanding of cost sharing responsibilities for maintenance trimming – specifically, the interpretation of the language requiring them to perform trimming on a joint basis “when both parties have a need” and when “it is agreed that both parties will benefit.” Additional differences arise with regard to the handling and allocation of the costs of removing hazardous or “danger” trees that threaten the plant of both parties.

¹⁵ See IOP #7 between Verizon and PSNH; IOP J between Verizon and National Grid; and IOP #17 between Verizon and Unitil.

¹⁶ National Grid's IOP with Verizon differentiates between extensions along existing roads and extensions off road/right of way. Extensions off road are divided 50/50.

Electric utilities assert that Verizon is not responsive to requests for joint participation, and generally does not adequately share in the costs for either maintenance trimming or danger tree removal. In effect, they argue, Verizon benefits from the maintenance tree trimming programs of the electric utilities such that it has been able to significantly reduce the amount of tree trimming it is obligated to perform as required to safeguard its own facilities from damage and provide its workers with access to distribution. They further comment that they have simply stopped trying to seek reimbursements from Verizon, as their efforts have been generally ineffectual. Verizon, for its part, does not believe it requires the same level of trimming as do the electric utilities, largely because its facilities tend to be located in the lowest and most protected position on the pole.

The electric companies employ professional arborists to determine whether individual trees represent a danger to joint facilities and believe that Verizon should share the cost of all danger tree removals. Verizon acknowledges that it delegates decisions involving danger tree removal to local personnel, and that it has no consistent standards to make decisions about joint participation. Further, Verizon does not employ arborists, leading different personnel to make different determinations about Verizon's need for hazard tree removal, resulting in inconsistencies in Verizon's level of participation. As an example of the disparity in tree removal work, during the period 2000-2005, National Grid identified 2,241 danger trees requiring removal. Of those, Verizon agreed to participate in removing only 124. During that same period, National Grid spent a total of \$414,194 to remove danger trees; Verizon contributed \$24,200 or approximately 6 percent of those costs.

With respect to construction trimming, the electric utilities also assert that Verizon does not make a good faith effort to coordinate trimming that might benefit the joint owner when it plans its extensive fiber overlay projects, and that Verizon and its contractors fail to remove enough vegetation on joint construction projects to meet electric requirements. Verizon denies that it is not meeting its obligation under the relevant IOPs.

The wide discrepancy in positions on cost sharing turns on the potential for subjective interpretation of the requirement that “both parties have a need” for trimming before costs are shared. In effect, the language in the IOPs provides an open loophole for a joint owner to avoid having to share in the cost of trimming.

The following table summarizes data responses submitted by the electric companies and Verizon concerning trimming costs.

Table 4 - Trimming (2001-2005)

	PSNH	National Grid	Unitil	Electric Total	Verizon
\$ Operational Trimming Yearly Avg.	\$6,335,005	\$749,536	\$716,044	\$7,800,585	\$215,107
Pole Miles Trimmed per Year	2,355	139	151	2,645	N/A
\$ Operational Trim per Pole Mile	\$2,690	\$5,392	\$4,742	\$2,949	N/A
Pole Miles	12,568	882	1,145	14,595	16,634 ¹⁷
Total Operational Trim Expense per Mile of Line Owned	\$504	\$850	\$625	\$558	\$13

¹⁷ Estimate by staff – see Appendix, fn. 9.

Type of Professional Trimming Specialist	Arborists	Arborists	Arborists		Engineers & Work Inspectors
Trimming Philosophy	Preventative	Preventative	Preventative		Where needed

Conclusions and Staff Recommendations

Staff believes good utility practice requires that all utilities perform maintenance tree trimming of electric supply and communications lines to protect facilities from damage and to safeguard workers and other persons from hazards arising from the operation of lines on jointly owned poles. Staff agrees that the removal of hazardous or “danger” trees that threaten the facilities of both parties to an IOP should be coordinated by the parties and the costs appropriately shared.

Disagreement over the need for such removals, however, remains an area of contention that is not as easily addressed. Various data responses, supported by extensive discussion in technical sessions, have raised the issue of whether Verizon’s agreement and participation in the removal of “danger” trees has been unduly limited. Construction trimming associated with new pole installations raises the issues of mutual benefit and cost sharing, as well. Inconsistencies in the performance of construction trimming could be addressed by: 1) adherence to the clearance standards provided in the IOPs, and 2) sharing of trimming specifications to ensure that each joint owner knows and considers the requirements of the other.

Staff recommends the Commission further investigate cost sharing issues pertaining to the removal of danger trees. In doing so, the Commission may want to examine the reasonableness of the different operational approaches and processes utilized by Verizon and the electric utilities with respect to their respective vegetation removal programs.

Staff does not believe that the existing joint ownership agreements are written in a manner that will lead to reconciliation of the divergent positions of the joint owners on the subject of maintenance trimming. The current agreements have given rise to multiple disputes among the parties about responsibilities, reimbursements, budgets and specifications without providing a clear dispute resolution process. Staff recognizes that while utilities have attempted to renegotiate those agreements, there is little likelihood the parties will reach common ground with respect to maintenance trimming requirements and obligations.

Staff recommends standardization and clarification of the terms and conditions of maintenance trimming in the IOPs, as well as the introduction of a clear dispute resolution process in the joint agreements. Staff further recommends that dispute resolution come before the Commission.

ISSUES FOR COMMISSION CONSIDERATION

Adequacy of Labor Resources

It became clear during the course of discussions on the overall topic of joint ownership responsibilities that the adequacy or lack thereof, of Verizon labor and equipment resources is a significant issue affecting all related joint ownership issues.

Staff recommends the Commission:

- Investigate and establish baseline resource levels and clear performance standards to ensure safe and reliable service in accordance with regional and national standards.
- Examine the relationship between resource levels, the impact of changes in resource levels on rates, and each utility's ability to meet its joint ownership responsibilities.

Pole Inspection

Discussions on this topic revealed certain discrepancies among the various utilities' pole inspection programs and practices. Staff believes that uniform standards for the conduct of pole inspections in accordance with National Electrical Safety Code (NESC) are essential to ensure public safety and reliable service.

Staff recommends the Commission:

- Review each utility's performance for compliance with the guidelines set forth in the NESC with respect to pole inspections and replacement.
- Require the development of uniform standards for a pole inspection program that follows existing utility IOPs and NESC guidelines.
- Monitor and enforce the resulting standards.

Timely Placement of Poles

The three electric utilities focus on customer need dates when prioritizing and scheduling pole work. Verizon schedules by specified available technician hours. It became apparent through discussion and discovery that the available hours for Verizon employees may not be adequate to meet the needs of customers and the electric companies.

Staff recommends the Commission:

- Set a basic performance standard that encourages all utilities to adhere to a scheduling system governed by customer need dates, and to ensure adequate staffing levels to meet those dates.

Double Poles

Verizon faces the daunting task of reducing the number of double poles – numbering nearly 7,000 during the course of proceeding – in a reasonable time to satisfy the requirements of public safety. Verizon has committed to removing existing double poles at a rate that will take over eight years to accomplish. At the same time, Verizon and its electric partners will continue to create additional double poles in the normal course of business. Verizon's increasing use of its electronic transfer notification system may well speed transfers of municipal and licensee attachments, but will not reduce the physical transfer and removal backlog currently slowing progress in pole removal.

Staff recommends the Commission:

- Set a performance standard that establishes a maximum number of double poles to exist at any one time in the state, such as 500, unless a waiver is granted by the Commission.

- Set a performance standard for Verizon for the elimination of outstanding double poles within three years or by year-end 2010.

Intercompany Communication and Notification

Of the two principal problem areas discussed in this section - coordination of work requests and transfer notification, the former does not rise to a level requiring Commission consideration. Although the utilities have drifted away from using the more formal Exchange of Notice process to communicate the need for joint pole work, informal communication procedures appear to be working adequately.

Communication among the utilities with respect to the transfer of pole attachments remains an important issue that merits further review. Poor communication with municipalities and licensees has contributed to Verizon's double pole backlog.

Staff recommends the Commission:

- Encourage the adoption and use of an electronic transfer notification system by all parties that incorporates the best features of the existing system used by Verizon, with the added enhancements of mapping, inspection photo documentation, GIS integration, report capabilities, contact data, mobile access and software support.

Pole Line Trimming

The electric companies perform maintenance trimming on their line networks (regardless of maintenance area) to prevent vegetation from interfering with the delivery of power service. The IOPs outline a cost split between the electric and Verizon to be applied when Verizon agrees that maintenance trimming benefits it. Verizon agrees to cost sharing only where its cables are in direct contact with limbs or where aerial service terminals are blocked. The

language of the IOPs thus appears to have created an inevitable point of conflict between Verizon and the electric companies with respect to cost sharing of trimming expenses.

Staff recommends the Commission:

- Examine the reasonableness and effectiveness of the different operational approaches and processes utilized by Verizon and the electric utilities with respect to their respective vegetation removal programs.
- Investigate current practices pertaining to the removal of hazardous, or “danger” trees.
- Establish uniform maintenance and hazard trimming guidelines to be incorporated into the IOPs that clearly define the responsibilities of each partner.

Staff further recommends the Commission:

- Require the utilities to incorporate in their joint agreements a clear dispute resolution process that provides the option of coming before the Commission.