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November 6, 2006

VIA FEDERAL EXPRESS

James J. McNulty, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

Re: Proposed Rule Making for Revision of 52 Pa. Code Chapter 57 pertaining to adding Inspection and Maintenance Standards for the Electric Distribution Companies Docket No.: L-00040167

Dear Secretary McNulty:

Enclosed please find an original and 15 copies of the **Comments of Allegheny Power** in the above-captioned rulemaking. An electronic copy of the Comments is being sent via email to Elizabeth Barnes, Assistant Counsel, for placement on the Commission's website. The Comments of Allegheny Power are filed today, November 6, 2006.

Very truly yours,

John L. Munsch
Senior Attorney

cc: ebarnes@state.pa.us

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Proposed Rulemaking for Revision of 52 Pa. Code Chapter 57 pertaining to adding Inspection and Maintenance Standards for the Electric Distribution Companies	: : : :	**Docket No. L- 00040167**

COMMENTS OF ALLEGHENY POWER

I. INTRODUCTION

Allegheny Power submits comments at the above-captioned docket in response to the Pennsylvania Public Utility Commission's ("Commission") Proposed Rulemaking Order on the proposed adding of inspection and maintenance standards in the electric distribution industry. The Proposed Rulemaking Order was adopted by the Commission on April 20, 2006 and published in the Pennsylvania Bulletin on October 7, 2006. (36 Pa.B. 6097).

II. SUMMARY

Allegheny Power ("AP") believes that standardized industry-wide inspection and maintenance standards are not necessary in order for the Commission to ensure reliable electric delivery in Pennsylvania. It is appropriate, however, for the Commission to require submittal of an EDC's individual plan of inspection and maintenance programs. Many variables influence an individual company's approach to inspecting and maintaining equipment and managing vegetation that require a tailored approach to achieving good reliability. These activities have been developed through many years of

company-specific planning and program enhancements, and purposely evolve as information access and diagnostic technologies improve.

III. SPECIFIC COMMENTS

Allegheny Power provides the following comments to the proposed rulemaking. Comments are addressed in numerical order as they relate to the rulemaking document.

1. Whether it is appropriate for the Commission to adopt specific inspection and maintenance standards. If so, whether standards should be placed in the regulations which are specific to each individual EDC, or whether all EDCs should be held to the same standard, and how would this be monitored and regulated.

AP believes that mandated inspection and maintenance standard intervals should not be necessary to ensure reliable electric service. Each Pennsylvania electric distribution company (EDC) has its own programs and procedures for achieving reliable service to its customers. These programs and procedures have been developed over time to address the specific challenges that each EDC faces. At the same time, it is reasonable for the Commission to require that certain programs exist at each EDC. These programs should be performed on periodic EDC-specific cycles, and, if necessary, reviewed by the Commission in periodic plan filings. Mandating common, standardized, industry-wide inspection and maintenance standards should not be required, as there is no apparent reliability benefit to standardizing programs; establishing such standards may actually be counter-productive for several reasons.

- Setting time-specific inspection and maintenance (I&M) standards removes variables in a utility's control to affect reliability performance and meet performance standards.
- Utilities use various company-specific combinations of predictive maintenance, preventive maintenance, reliability-centered maintenance, and inspection techniques to improve reliability in an efficient manner.
- Utility-specific factors affect I&M programs, such as:
    i. Urban vs. rural customer base
    ii. Flat vs. mountainous terrain
    iii. Overhead vs. underground lines
    iv. Customer growth rates
    v. Tree types and tree growth rates
    vi. Local weather patterns (lightning, ice, wind, tornadoes, etc.)
    vii. Local agreements (municipal, permitting, union, etc.)
- Utilities have differences in infrastructure, such as:
    i. Construction types
    ii. Voltage classes
    iii. Feeder lengths
    iv. Age
    v. Equipment duty cycles
    vi. Fault service
    vii. Equipment loading

- Non-controllable, non-excluded storms continue to be a significant contributor to reliability variability.
    i. Non-controllable off R-O-W trees are a major statistic and a major outage cause in weather events.
    ii. Weather affects trees and equipment to differing, varying extents even within differing parts of the same company.
- Guidelines established by entities, such as federal requirements for transmission or local city ordinances for tree trimming, can conflict with Commission-established standards.
- Many utilities are multi-state entities. Tailoring individual programs to specific states within one company is inefficient.

The Commission has the ability to monitor reliability results through quarterly and annual reliability report filings and currently has the ability to require increased oversight if an individual EDC's reliability is not being maintained adequately. Mandating inspection and maintenance cycles will not significantly improve reliability, while decreasing the EDC's ability to focus resources as needed to address the issues noted above.

2. <u>What standards, if any, should be created regarding vegetation management practices, pole inspections, transmission and distribution line inspections, substations, transformers, reclosers, and other types of inspection and maintenance practices.</u>

Because of the many factors detailed in (1) above, strict <u>uniform</u> standards across all EDC types would not be cost affective or productive for individual EDCs, if I&M standards are deemed necessary. Requiring that programs exist for vegetation

management, pole inspections, line inspections, etc., is appropriate, as long as the EDC's retain the ability to individually tailor these programs to local needs. Stipulating specific inspection intervals and maintenance practices adds significant costs while not delivering improvements in reliability.

AP particularly believes that certain mandated inspection and testing frequencies, as listed in Annex A of the Order, would be onerous without providing reliability benefits. For example, annual recloser readings (be they visual or remote readings) are acceptable but annual testing would necessitate large inventory increases and massive re-assignment of both field and storeroom/shop personnel to implement annual recloser re-processing, even for reclosers that had not operated during the previous time period. Foot patrolling AP's 25,000 miles of distribution lines every year would increase AP resource requirements six-fold, even though current practice reveals very few problems. Foot patrolling AP's 1,600 miles transmission lines every two years would likewise require significant re-assignment of resources but would not improve upon the current combination of aerial and foot patrols that already produce excellent results. More frequent inspections will not reveal possible internal defects in insulators, transformers, lightning arrestors, connectors, cutouts, etc., nor will they be able to avoid outages caused by ice, high winds, lightning and other severe weather events.

AP also believes that mandated state-wide inspections would yield to significant field labor shortages and cost increases, as utilities compete for an already-limited labor force, not to mention that this limited field labor force would be unavailable to perform more critical reliability-improvement and new customer connection work.

3. Whether standards should be established for repair and maintenance of electric distribution company equipment or facilities that are critical for system reliability.

Allegheny Power believes that defining 'critical' equipment is too dependent on environmental factors to make an effective definition possible. The decision to classify a repair item as "critical" depends on a number of factors, including:

- Location of facilities
- Condition of facilities (whether the facilities are about to fail or are expected to fail a year from now, for example)
- Role of facilities in delivery system
- Availability of backup facilities
- Effect of facility failure on delivery system
- Status of other maintenance/restoration work at the time of inspection
- Status of the overall distribution system at the time of inspection

These types of factors are stronger determinants of the "critical" nature of a problem than equipment type. As such, EDC's need to retain the ability to schedule repairs in a way that accounts for these types of factors.

4. Whether there should be automatic civil penalties written into the regulations for failure to meet standards for more than three consecutive quarters or some other reasonable time period, depending upon the type of inspection and maintenance that is at question.

AP agrees with the Commission that any penalties, if deemed necessary as part of the proposed regulations, should not be automatic. Many factors outside an EDC's control

affect inspection and maintenance frequencies and reliability statistics in the short-term. Individual weather events affect twelve-month reliability statistics for an entire year. Many of the weather events are localized and affect individual circuits or service centers. Very few weather events are significant enough to warrant system-wide major event data exclusions. Since AP has territories in three distinct zones of Pennsylvania (western, north-central, and south-central Pennsylvania), AP frequently experiences major weather events in one weather zone that do not affect customers in the others; these non-excluded storms create large swings in short-term reliability statistics that are unrelated to inspection and maintenance practices. Weather also affects timing of getting work completed. 'Good' weather is necessary to safely complete electrical inspections and maintenance. Automatic penalties would preclude communications with the Commission about conditions surrounding any failures to meet regulations and opportunities for remedial actions. Scheduled work that is not completed in a calendar year (which in itself is an arbitrary time period), due to unforeseen events, is typically completed early in the following period, without reliability effects.

Comment on Rural and Urban Definitions

Allegheny Power believes that an urban/rural census definition is not appropriate for planning transmission and distribution inspection and maintenance activities. Line equipment (reclosers, transformers, conductor, fuses, etc.) functions in the same manner regardless of an urban setting or rural setting. Inspection and maintenance practices are the same regardless of population density. Similarly, pole inspection cycles are independent of population density. Vegetation management cycles may be tailored to the

needs of cities or towns, the cycle and practice differences are typically governed by agreements with individual municipalities and are independent of discrete population size boundaries. Allegheny Power has many long circuits that cross into 'urban' and 'rural' areas often several times. Tailoring work practices to portions of individual circuits is inefficient and does not promote improvement.

Allegheny Power notes that the Census Bureau[1] has a somewhat indeterminate definition of urban versus rural and is based on a population of 2,500:

> *The U.S. Census Bureau does not identify or classify entire counties as urban or rural. Geographic entities such as places, counties, metropolitan areas, etc., are often split between urban and rural territory, and the population and housing units they contain are then classified as part urban and part rural. For example, take a look at St. Mary's County, MD, a predominantly rural county which nonetheless contains a substantial urban population.*
>
> *Definition: Urban & rural*
> *Question:* *What is the difference between urban and rural population?*
> *Answer:* *Urban - All territory, population and housing units in urban areas, which include urbanized areas and urban clusters. An urban area generally consists of a large central place and adjacent densely settled census blocks that together have a total population of at least 2,500 for urban clusters, or at least 50,000 for urbanized areas. Urban classification cuts across other hierarchies and can be in metropolitan or non-metropolitan areas.*

[1] http://ask.census.gov/cgi-bin/askcensus.cfg/php/enduser/std_adp.php?p_faqid=623&p_created=1092150238&p_sid=ilU5d*ji&p_lva=&p_sp=cF9zcmNoPTEmcF9zb3J0X2J5PSZwX2dyaWRzb3J0PSZwX3Jvd19jbnQ9MiZwX3Byb2RzPSZwX2NhdHM9JnBfcHY9JnBfY3Y9JnBfcGFnZT0xJnBfc2VhcmNoX3RleHQ9NjIz&p_li=&p_topview=1

http://ask.census.gov/cgi-bin/askcensus.cfg/php/enduser/std_adp.php?p_faqid=661&p_created=1094757817&p_sid=MASob*ji&p_lva=&p_sp=cF9zcmNoPTEmcF9zb3J0X2J5PSZwX2dyaWRzb3J0PSZwX3Jvd19jbnQ9OSZwX3Byb2RzPSZwX2NhdHM9JnBfcHY9JnBfY3Y9JnBfcGFnZT0xJnBfc2VhcmNoX3RleHQ9dXJiYW4gcnVyYWwgc3VidXJiYW4*&p_li=&p_topview=1

Rural - Territory, population and housing units not classified as urban. Rural classification cuts across other hierarchies and can be in metropolitan or non-metropolitan areas.

Current Allegheny Power inspection and maintenance intervals per § 57.198(e):

Allegheny Power provides its current I&M practices as directed in the proposed rulemaking:

1. *Vegetation management*. Unless governed by a local agreement, AP performs vegetation management on distribution circuits on a three or four-year cycle, depending on local vegetation conditions; included in the cycle is an off-right-of-way hazard tree mitigation program. AP utilizes a flexible approach for transmission line management of 9 years for side-trimming, 6 years for brush control, and 3 years for on-right-of-way tree trimming; aerial patrols determine the need to meet, accelerate or delay these recommended cycles. Hazard trees are located during aerial patrols and removed as they are discovered.

2. *Pole inspections*. Distribution poles are inspected at Allegheny Power on a 12-year cycle.

3. *Overhead line inspections*. Allegheny Power currently performs aerial transmission line inspections once per year and performs foot patrols as needed based on the aerial inspections. Allegheny Power performs distribution line inspections every six years. Repair time for problems found varies depending on severity of the problem. Overhead distribution transformers are visually inspected as part of the distribution line inspection. Allegheny Power inspects pad-mounted and below-grade transformers every five years. Allegheny Power inspects and reads line reclosers once per year, and inspects

and reads substation reclosers three times per year, and tests reclosers when they meet manufacturers recommended fault duty based on number of operations.

4. *Substation inspections*. Allegheny Power visually inspects substations three times per year, in addition to condition-based inspection and maintenance activities that occur throughout the year.

IV. Comments on Annex A

The following paragraphs contain AP's proposed revised language for Annex A, as well as specific comments on each line item, where warranted.

Annex A

TITLE 52. PUBLIC UTILITIES

PART I. PUBLIC UTILITY COMMISSION

Subpart C. FIXED SERVICE UTILITIES

CHAPTER 57. ELECTRIC SERVICE

Subchapter N. ELECTRIC RELIABILITY STANDARDS

§ 57.192. Definitions.

~~The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise:~~

* * * * *

~~*Rural area*—A rural place designated by the United States Bureau of Census as having a population of less than 5,000 and whose~~

~~boundaries have been approved by the Secretary of the United States Department of Transportation.~~

* * * * *

~~*Urban area*—An urbanized area or an urban place designated by the United States Bureau of Census as having a population of 5,000 or more and whose boundaries have been approved by the Secretary of the United States Department of Transportation.~~

Specific comments on Section § 57.192:

Allegheny Power recommends deleting the definitions of 'rural area' and 'urban area'. These segregations of customers are not meaningful in relation to inspection and maintenance programs for transmission and distribution equipment.

§ 57.198. Inspection and maintenance standards.

(a) An EDC shall have a plan for ~~the periodic inspection and maintenance of poles, overhead conductors and cables, wires, transformers, switching devices, protective devices, regulators, capacitors, substations and other facilities~~ electrical distribution facilities critical to maintaining an acceptable level of reliability, in a format the Commission prescribes. The Commission will review each plan and may issue orders to ensure compliance with this section. The Commission may require an EDC to submit an

updated plan at any time containing information the Commission may prescribe.

(1) The plan must be based on industry codes, National electric industry practices, manufacturers' recommendations, sound engineering judgment and past experience. ~~The plan must be divided into rural and urban areas.~~ The plan must take into account the broad ~~minimum~~ inspection and maintenance ~~intervals~~ activities provided for in subsection (e).

(2) An EDC shall reduce the risk of future service interruptions by accounting for the ~~age,~~ condition, design and performance of system components and by providing adequate resources to maintain, repair, replace and upgrade the system.

(3) ~~The plan must include a program for the maintenance of minimum clearances of vegetation from the EDC's overhead transmission and distribution facilities sufficient to avoid contact under design-based conditions. The plan must include a program for the trimming of tree branches and limbs located in close proximity to overhead electric wires when the branches and limbs may cause damage to the electric wires, regardless of whether the trees in question are on or off of a right-of-way.~~

Specific comments on Section (a)(3):

Allegheny Power disagrees with the requirement to maintain minimum clearances. As tree limb growth is dependent on a variety of factors and cannot accurately be predicted in the short term, requiring minimum clearances would essentially result in an annual inspection and trim cycle; even with such an onerous cycle, AP could not guarantee that certain fast growing species would not re-grow in contact during the year. Furthermore, incidental, small limb contact does not typically cause power outages. Thus retaining this requirement would dramatically increase inspection and trimming costs while providing no reliability benefit, and could not be reasonably implemented.

(4) The plan, or updates to the plan, must form the basis of, and be consistent with, the EDC's inspection and maintenance goals and objectives included in subsequent annual and quarterly reliability reports filed with the Commission.

(b) ~~On or before October 1, 2007~~ Within 12 months of the approved order, and every 2 years thereafter, an EDC shall submit its whole plan for the following calendar year to the Commission for review.

(1) Within 90 days, but no later than October 1st , the Commission or its designee will accept or reject the plan.

Specific comments on Section (b)(1):

Allegheny Power recommends that plan acceptance be timed in such a way that each EDC can integrate the approved requirements into the following year's budget.

(2) Absent action by the Commission or its designee to reject the plan within 90 days of the plan's submission to the Commission, or by January 1, whichever is later, the plan will be deemed accepted. The acceptance will consider whether ~~be conditioned upon~~ the EDC is meeting Commission-established reliability performance standards.

Specific comments on Section (b)(2):

As inspection and maintenance plans are not directly tied to short-term statistical reliability performance, and short-term statistical reliability performance is significantly affected by non-excluded major weather events and other non-facility issues, plan acceptance should not be dependent upon meeting standards; rather, the Commission should take into account trending of performance against the standards, which allows for subjective removal of weather and other anomalies from final consideration.

(3) If the plan is rejected, in whole or in part, by the Commission or its designee, the EDC shall be notified of the plan's deficiencies and directed to resubmit a revised plan, or pertinent parts of the

plan, addressing the identified deficiencies, or submit an explanation why the EDC believes its plan is not deficient.

(c) An EDC may request approval from the Commission for revising an approved plan. An EDC shall submit to the Commission, as an addendum to its quarterly reliability report, prospective and past revisions to its plan and a discussion of the reasons for the revisions. Within 90 days, the Commission or its designee will accept or reject the revisions to the plan.

(d) An EDC shall maintain records of its inspection and maintenance activities sufficient to demonstrate compliance with its transmission and distribution facilities inspection, maintenance, repair and replacement programs as required by subsection (e). The records shall be made available to the Commission upon request within 30 days.

(e) An EDC shall maintain ~~the following minimum~~ inspection and maintenance intervals for the following programs:

(1) *Vegetation management.* The EDC shall include ~~Statewide minimum~~ inspection and treatment cycles for vegetation management ~~are 4 years~~ for distribution facilities and ~~5 years for~~ transmission facilities.

Specific comments on Section (e)(1):

Distribution Vegetation Management:

Allegheny Power currently employs a four-year cycle for distribution vegetation management, except in areas where local agreements or specific vegetation conditions require a different cycle. AP's initial experience with moving to a four-year cycle has been positive, though it is difficult at this time to predict long-term benefits this early in the program. In addition to additional tree trimming and removal from the four-year cycle, due to more mileage covered per year, the Commission should recognize that the additional mileage also means that more resources must be expended inspecting rights of way, surveying off-rights-of-way for hazard trees, and negotiating access, trimming and removals with property owners. While in some cases it may be advantageous to decrease cycle length, AP also realizes that there are trade-offs when moving to a more frequent cycle and believes that EDC's should retain the flexibility to analyze and adjust cycle length based on results, or if vegetation conditions dictate a different cycle length. For this reason, AP recommends that EDC's submit and perform distribution vegetation management plans that optimize the use of vegetation management resources to meet the needs of the specific forestation, tree species, weather variations, and rights-of-way characteristics found in their respective service territories.

Transmission Vegetation management:

Allegheny does not agree with a 5-year vegetation management cycle for transmission rights of way. Allegheny's current approach, using annual aerial patrols to determine

needs, produces excellent results. Using this approach, AP transmission rights of way are well-maintained and are not a source of grid or customer reliability problems. Moving to a mandatory 5-year cycle would significantly increase inspection and maintenance costs while decreasing AP's flexibility to target resources to areas with most pressing needs. Additionally, AP is subject to recently established NERC guidelines governing transmission rights of way maintenance, which may conflict with state standards. Allegheny Power believes that the NERC guidelines will be effective, and recommends that EDC's transmission vegetation management plans should be managed by the EDC to meet NERC guidelines.

(2) *Pole inspections*. Distribution poles shall be visually inspected ~~every 10 years~~ on a periodic basis.

Specific comments on Section (e)(2):

Allegheny Power does not agree with a 10-year cycle standard for pole inspection. Allegheny Power currently utilizes a 12-year cycle and does not believe that a reducing to a 10-year inspection cycle will have a measureable effect on either pole failure rates or reliability statistics. Allegheny Power performs its current 12-year pole inspection and treatment program with excellent results. For example, in 2005, the number of recorded pole failures in Pennsylvania represents a failure rate of 0.008% (45 failures out of approximately 589,000 poles). Additionally, Allegheny Power reliability numbers are not significantly driven by pole failures; in 2005, approximately 0.01 of SAIFI (less than 0.9%) was attributed to pole failures. The decrease in cycle from 12 years to 10 years

will not make a noticeable different in pole failure rates or reliability statistics, while increasing costs and diverting maintenance resources. Allegheny Power recommends that EDC's submit pole inspection plans designed to maintain pole-related reliability, unless or until pole failures become a significant cause of customer interruptions..

(3) *Overhead line inspections.* Transmission lines shall be aerially inspected periodically. ~~aerially twice per year in the spring and fall. Transmission lines shall be inspected on foot every 2 years.~~ Distribution lines shall be periodically inspected by foot patrol. ~~a minimum of once per year~~. If problems are found that affect the integrity of the circuits, they shall be repaired or replaced in a timely manner according to the critical nature of the equipment. ~~no later than 30 days from discovery~~. Overhead distribution transformers shall be visually inspected ~~annually~~ as part of the distribution line inspection. Above ground pad-mounted transformers and below-ground transformers shall be inspected on ~~a 2-year cycle~~. Recloser readings shall be taken ~~inspected and tested~~ at least once per year.

Specific comments on Section (e)(3):

Transmission Line Inspections:

Allegheny Power disagrees with establishing a standard for yearly spring and fall aerial patrols and foot patrols every two years for transmission lines. Allegheny Power's current inspection and maintenance programs for transmission produce excellent results. Yearly aerial inspections include both equipment and facilities inspections and vegetation inspections, and both of these are sufficient to provide reliable transmission service. Increasing the number of aerial inspections and foot patrols will not significantly affect reliability statistics for Pennsylvania customers, as a very small number of customer interruptions result from transmission interruptions, and will divert resources from focusing on areas needed extra attention. Additionally, Allegheny Power will is subject to current and future NERC reliability guidelines, including any inspection requirements. Allegheny Power believes that NERC guidelines will be effective in ensuring transmission line reliability, and recommends that the Commission refrain from establishing additional standards.

Distribution Line Inspections:

Allegheny Power does not agree with establishing yearly foot patrols on all distribution circuits. Allegheny currently inspects overhead lines on average every six years, and our current inspection and maintenance programs are sufficient for finding and fixing problems on AP's overhead distribution lines. Increasing the frequency of line patrols to one year will increase AP's inspection costs by 600% while providing little, if any, increase in reliability. Many equipment- or material-related outages do not provide visual evidence beforehand, such as outages caused by flashovers or through-faults

during lightning/wind storms, or those caused by internal failure that cannot be seen during a visual inspection. Under AP's current six-year schedule, a relatively small number of maintenance items are discovered; increasing the frequency by a factor of six will yield little if any reliability benefit, while significantly decreasing AP's resources available to investigate and improve areas in need or more attention. Additionally, as monitoring technologies advance, significant opportunities arise to implement new inspection methods which, by their design, lessen the need for less-effective visual inspections. Allegheny Power recommends that EDC's retain the flexibility the submit plans that optimize inspection resources, and that EDC's be allowed to augment future plans as needed in order to justify the investigation of new technologies.

Repairing found problems within 30 days:

Allegheny Power opposes the requirement to repair problems within 30 days. Problems found during inspections vary in severity. Some problems found may need to be fixed immediately or within a few days; others are emerging problems which do not present a current risk and may be scheduled for future repair without interfering with current construction schedules. Placing a 30-day limit for repair will not improve reliability because it will not accelerate the repair of urgent problems; conversely, it will increase cost and decrease resource flexibility for work crews by placing artificially short time schedules on non-critical repairs. Additionally, transmission repairs, other than those which pose imminent risks to grid integrity, must be scheduled with PJM well in advance, and during peak seasons it is not possible for an EDC to schedule outages under

the proposed guideline. Allegheny Power recommends that EDC's retain the authority to determine the urgency of repair and to schedule resources accordingly.

Inspection of overhead distribution transformers annually:

Allegheny Power opposes a standard for the annual inspection of distribution transformers. Increasing visual inspection of overhead distribution transformers will not increase reliability. Allegheny Power's current six-year inspection program uncovers very few transformer problems; increasing the frequency of inspection six-fold will not produce significant additional benefits but will greatly increase costs and decrease resource flexibility for Allegheny Power. Most transformer failures are internal failures that result from causes that occur right before the failure, such has through-faults caused by storm-related faults on secondary/service conductors. Visual inspections will not decrease the number of these events. Allegheny Power recommends that EDC's continue to inspect overhead transformers according to current practice.

Inspection of pad-mounted or below-grade transformers every two years:

Comments: Allegheny Power opposes a standard for the inspection of pad-mounted and below-grade transformers every two years. AP's current inspection cycle for this equipment, every five years, is sufficient to maintain this equipment in a reliable fashion. For example, in 2005, SAIFI from failures of these types of transformers contributed approximately 0.001 (or about 0.1%) to AP's SAIFI in Pennsylvania. Increasing the frequency of inspection of these devices will not significantly affect customer reliability. Allegheny Power recommends that EDC's submit plans that establish inspection

schedules for pad-mounted and submersible equipment that meet its customer reliability needs.

Inspection and testing of reclosers once per year:

Allegheny Power disagrees with a standard for annual inspection of reclosers and testing of reclosers, while agreeing that recloser readings should be taken, visually or remotely, at least annually. The amount of wear that a recloser experiences is related to frequency of operation; recloser operation is not directly related to installation date. A newly-installed recloser will have a trip frequency based on the number of faults on the line that it protects, rather than on the length of time that the recloser is installed. During the course of a year, due to changes in severe weather and other external causes, this recloser may not trip at all, or it may trip several times. Reclosers that meet their recommended fault duty in one year are extremely rare. Initiating a one-year testing standard would cause Allegheny Power to routinely spend valuable resources replacing and testing reclosers that are in new or nearly new condition, while requiring massive re-assignment of both field and storeroom/shop personnel to implement annual recloser re-processing, even for reclosers that had not operated during the previous time period. In addition, AP would have to expand it's required inventory of reclosers by 5 to 10 times in order to meet the standard. This standard will not produce measurable reliability benefits but will severely hamper AP's ability to devote resources to most pressing line maintenance issues. Allegheny Power is accepting of standards for recloser readings (so long as the standard can include remote readings for EDC's who implement remote reading technologies), and recommends that EDC's retain the flexibility to submit plans that

establish recloser testing schedules based on fault-duty or other operational measures, rather than calendar-based plans.

(4) ***Substation inspections.*** **Substation equipment, structures and hardware shall be inspected** periodically ~~monthly~~**.**

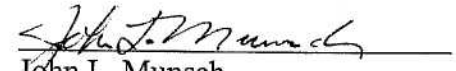
Specific comments on Section (e)(4):

Allegheny Power disagrees with a requirement for monthly substation inspections. AP's current inspection schedule is sufficient to provide reliable substation operation. AP has studied results of inspecting on more frequent cycles and has found very little benefit in inspecting stations more frequently. Very few customer outage incidents occur because of substation equipment failures (approximately a dozen events occurred in 2005), and most of the failures that do occur would not have been detectable during a routine inspection. Increasing the frequency of substation inspection will not significantly affect customer reliability but will significantly decrease AP's ability to devote resources to more pressing substation maintenance issues. Additionally, new monitoring and diagnostic technologies for substation equipment are constantly emerging, which by design provide superior diagnostic information and decrease even further the need for visual inspections, and EDC's need to retain the flexibility to adjust inspection and maintenance schedules as newer, better methods are implemented. Allegheny Power recommends that EDC's retain the authority to set substation inspection schedules needed to properly maintain substation equipment, structures and hardware, and the flexibility to change plans as new diagnostic technologies are implemented.

V. CONCLUSION

Allegheny Power believes it to be appropriate for the Commission to request periodic inspection and maintenance programs of each individual EDC while not mandating state-wide uniform inspection and maintenance standards. Each company has individually tailored inspection and maintenance programs to meet its reliability targets and achieve and maintain satisfactory customer satisfaction. The Commission has opportunities to review progress and results by way of quarterly and annual reliability reports, customer-reported complaints, customer satisfaction surveys, and individual company meetings. Prescribing inspection and maintenance standards while also requiring attainment of reliability standards (SAIFI, CAIDI, and SAIDI) penalizes well-run companies for the sake of those who occasionally may need individual attention. Reliability is a long-term endeavor that should be monitored as such and not dissected into discrete monthly, quarterly, or annual intervals of work attained. For these reasons, Allegheny Power recommends that EDC's retain the flexibility to create, implement, and revise its Inspection and Maintenance programs to cost-effectively maintain and improve customer reliability.

Respectfully submitted,

By: 

John L. Munsch
Senior Attorney

Dated: November 6th, 2006