

NOV 12010
VIA FEDEX NEXT DAY
PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

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November 1, 2010

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street $L$ L-000.30161
Harrisburg PA 17120
Harrisburg, PA 17120

## Re: 2010 Third Quarter Reliability Report of Allegheny Power

Dear Secretary Chiavetta:
Enclosed please find an original and six copies of the 2010 Third Quarter Reliability Report of Allegheny Power filed pursuant to 52 Pa . Code $\S 57.195$ : Copies of the Report have been served on the parties to Allegheny Power's reliability standards and benchmarks proceeding at Docket No. M-00991220F0003.

This filing is made by FedEx Next Day delivery, and the filing date is deemed to be today.

Very truly yours,


Enclosures
cc: Certificate of Service
Darren G. Gill, Bureau of CEEP

## RECEIVED

## NOV 1 <br> Allegheny Power Quarterly Report for Third Quarter 201PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU <br> This quarterly report is being submitted in accordance with Title 52. Public Utilities Part I. Public Utility Commission -Subpart C. Fixed Services Utilities - Chapter 57. Electric Service Subchapter N. Electric Reliability Standards.

§ 57.195 (e) (2) The name, title, telephone number and e-mail address of the persons who have knowledge of the matters, and can respond to inquiries, shall be included.

Timothy M Croushore<br>General Manager, Reliability Performance<br>(724) 838-6198<br>tcroush@alleghenypower.com

§ 57.195 (e) (1) A description of each major event that occurred during the preceding quarter, including the time and duration of the event, the number of customers affected, the cause of the event and any modified procedures adopted in order to avoid or minimize the impact of similar events in the future.
a. The following Major Events occurred during the third quarter of 2010. Note that these events are excluded based upon the proposed service-areawide definition.
b. Major events occurred on the following dates. A description of the event follows and the PUC approval is attached as Appendix VI.
$>$ Between September $22^{\text {nd }}$ and September $25^{\text {th }} 2010$, Allegheny Power experienced a severe wind and thunderstorm event involving strong winds and lightning. Allegheny Power experienced over 85,500 customer interruptions, or over $12 \%$ of its customers served in Pennsylvania. Restoration was completed over a three and one-half day period.
c. Allegheny Power's Restore Service Process Management Team constantly monitors the process and conducts post-event meetings in an attempt to enhance the restoration process for future events.
d. In addition to major events, Allegheny Power tracks the effects of major weather events (Restore Service or "RS" Events) that do not meet the 10\% exclusion threshold but have a major effect on reliability statistics. Because Allegheny Power's Pennsylvania territory is spread across four weather zones, large regional storms are typically not excluded, even though they often require massive restoration efforts. During the third quarter, AP's Pennsylvania service territory experienced several RS Events totaling over 74,000 customers interrupted and over 62 million CMI.
§ 57.195 (e) (2) Rolling 12-month reliability index values (SAIFI, CAIDI, SAIDI, and if available, MAIFI) for the EDC's service territory for the preceding quarter. The report shall include the data used in calculating the indices, namely the average number of customers served, the number of sustained customer interruptions, the number of customers affected, and the customer minutes of interruption. If MAIFI values are provided, the report shall also include the number of customer momentary interruptions.
a. The following table provides Pennsylvania's 12 -month ending reliability statistics for month ending September 2010. MAIFI statistics are not recorded nor readily available at Allegheny Power. As disclosed in prior filings, sufficient field equipment is not available to provide meaningful data for momentary interruptions.

|  | Approved | Rolling | Rolling | 3rd qtr 2010 | 3rd qtr 2010 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Reliability | Settlement | 12-Month | 3-Yr Avg. | Performance | Performance |
| Indices | Benchmarks | Standard | Standard | (Rolling 12-month) | (Rolling 3-year) |
| SAIFI | 1.05 | 1.26 | 1.16 | 1.13 | 1.07 |
| CAIDI | 170 | 204 | 187 | 216 | 179 |
| SAIDI | 179 | 257 | 217 | 244 | 193 |

Data supporting indices:

| Zone | Locations | Incident Devices | Interrupted Customers | Avg Cust Served | kVA | Calls | CMH | SAlDI | ASAI | CAIDI | SAIFI |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pennsylvania | 10,953 | 16,495 | 806,230 | 712,512 | 8,286,418 | 132,914 | 174,106,151 | 244.4 | 0.999535 | 216.0 | 1.13 |

Discussion supporting statistics:
AP had a major storm from August $4^{\text {th }}$ to August $7^{\text {th }}$ that affected over 58,000 customers, or over $8 \%$ of the total, and contributed nearly 60 million CMI. This event was not excludable because it did not meet the $10 \%$ exclusion threshold. This event caused the Allegheny Power's rolling 12 month performance to exceed the 12-Month Standard for CAIDI. In addition, this specific weather event alone contributed 0.08 to PA SAIFI and over 83 minutes to PA SAIDI. PA CAIDI increased by 57 minutes from July $31^{\text {st }} 12$-month ending to August $31^{\text {st }} 12$-month ending This caused AP to be above its three benchmarks for SAIFI, CAIDI and SAIDI for the first time since early 2009. CAIDI for the event was over 1,000 minutes to restore all customers affected.

The prior quarter's statistics for comparison follow:

|  | Approved | Rolling | Rolling | 2nd qutr 2010 | 2nd gtr 2010 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Reliability | Settlement | 12-Month | 3-Yr Avg. | Performance | Performance |
| Indices | Benchmarks | Standard | Standard | (Rolling 12-month) | (Rolling 3-year) |
| SAIFI | 1.05 | 1.26 | 1.16 | 0.98 | 1.07 |
| CAIDI | 170 | 204 | 187 | 159 | 167 |
| SAIDI | 179 | 257 | 217 | 155 | 182 |

Leading up to the isolated August storm, Allegheny Power was performing better than all three benchmarks and the six standards as shown in the 2Q, 2010 Reliability Indices table above.

The three graphs below are Allegheny Power's performance tracking against benchmarks and standards for SAIFI, CAIDI and SAIFI. The broken orange line represents the benchmark, the broken green line represents the three year rolling standard and the broken light blue line is the one year rolling standard.

These graphs demonstrate that AP expects to be within its 1-year and 3-year Standards by year end 2010-including the CAIDI standard. In October 2009 Allegheny Power's northernmost service centers experienced an early, heavy wet snow causing significant damage and customer outages. The effects of this event will fall off of the rolling 12month average statistics resulting in performance levels that are better than the 12 -month CAIDI standard. AP has initiatives in place to facilitate responses to both storm and nonstorm events. It can also be seen from the graphs what a significant effect a single large scale non-excludable storm can have on reliability statistics even when operating better than benchmarks.

## Charts showing projected year-end 2010 reliability performance





The following table represents performance as of the report date of October 29, 2010. AP is currently in compliance with all of its Standards.

|  | Approved | Rolling | Rolling | 28-Oct-10 | 29-Oct-10 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Reliability | Settlement | 12-Month | 3 -Yr Avg. | Performance | Performance |
| Indices | Benchmarks | Standard | Standard | (Rolling 12-month) | (Rolling 3-year) |
| SAIFI | 1.05 | 1.26 | 1.16 | 1.10 | 1.07 |
| CAIDI | 170 | 204 | 187 | 196 | 179 |
| SAIDI | 179 | 257 | 217 | 215 | 193 |

The following table represents the forecasted year-end performance:

|  | Approved | Rolling | Rolling | Projected 4th 2010 | Projected 4th 2010 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Reliability | Settlement | 12-Month | 3-Yr Avg. | Performance | Performance |
| Indices | Benchmarks | Standard | Standard | (Rolling 12-month) | (Rolling 3-year) |
| SAIFI | 1.05 | 1.26 | 1.16 | 1.21 | 1.11 |
| CAIDI | 170 | 204 | 187 | 183 | 172 |
| SAIDI | 179 | 257 | 217 | 221 | 192 |

§ 57.195 (e) (3) Rolling 12-month reliability index values (SAIFI, CAIDI, SAIDI, and if available, MAIFI) and other pertinent information such as customers served, number of interruptions, customer minutes interrupted, number of lockouts, and so forth, for the worst performing $5 \%$ of the circuits in the system. An explanation of how the EDC defines its worst performing circuits shall be included.
a. This report provides a listing of all Pennsylvania circuits ranking in the lowest five percent as ranked by DCII. The report is attached as Appendix I.
b. A description of the DCII is presented in Appendix V.
§ 57.195 (e) (4) Specific remedial efforts taken and planned for the worst performing $5 \%$ of the circuits as identified in paragraph (3).
a. Allegheny's current process for addressing worst performing circuits and line segments is outlined in the Reliability Improvement Program (RIP). The details of which have been previously submitted to the Commission staff. In summary, the RIP program addresses all circuits experiencing two or more lockouts as well as any other protective device experiencing multiple operations. Field personnel review outages on these circuits or line segments and corrective action is taken as necessary to address any immediate reliability concerns.
b. Remedial work for the $5 \%$ circuits is shown in Appendix II. Field personnel review these circuits quarterly. After the third quarter reporting is complete, outage causes are evaluated and action plans are developed
for circuits requiring more comprehensive maintenance and these plans are incorporated in next year's budgets and work plans.
c. AP has continued a circuit improvement process whereby AP's recent 100 worst performing circuits are identified, studied, and targeted for further possible improvements based on the review of outage causes. Approximately one-third of these circuits are Pennsylvania circuits. This program is being integrated into the RIP process.
§ 57.195 (e) (5) A ROLLING 12-MONTH breakdown and analysis of outage causes during the preceding quarter, including the number and percentage of service outages, THE NUMBER OF CUSTOMERS INTERRUPTED, and customer interruption minutes categorized by outage cause such as equipment failure, animal contact, tree related, and so forth. Proposed solutions to identified service problems shall be reported.
a. A summary of outage causes by customers interrupted and by customer minutes interrupted follows.
b. Note that $69 \%$ of all customer interruptions are caused by non-equipmentrelated causes. Also note that $82 \%$ of customer minutes interrupted by trees are a result of trees falling from outside of the right-of-way.
c. AP's definition of tree-related outages includes those cases where trees have fallen as a result of severe weather conditions.
d. 'Weather' definition includes weather-related outages involving lightning damage, severe snow/ice loading, extreme wind, flooding, etc. and does not include tree-related outages.

| Outage Cause | Incidents <br> 12 Month ending Sept 2010 |  | Customers Interrupted <br> 12 Month ending Sept 2010 |  | Customers Minutes Interrupted <br> 12 Month ending Sept 2010 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Percent | Number | Percent | Number | Percent |
| Animals | 1,336 | 8.1\% | 37,075 | 4.6\% | 3,163,499 | 1.8\% |
| Overhead Equipment Failure Overhead Line Equipment Overhead Line Material Overhead Wire | $\begin{aligned} & 1,174 \\ & 1,692 \\ & 1,083 \end{aligned}$ | $\begin{gathered} 7.7 \% \\ 10.3 \% \\ 6.6 \% \end{gathered}$ | $\begin{aligned} & 25,331 \\ & 104,745 \\ & 62,375 \end{aligned}$ | $\begin{gathered} 3.1 \% \\ 13.0 \% \\ 7.7 \% \\ \hline \end{gathered}$ | $\begin{gathered} 2,636,081 \\ 11,283,887 \\ 6,581,362 \\ \hline \end{gathered}$ | $\begin{aligned} & 1.5 \% \\ & 6.5 \% \\ & 3.8 \% \\ & \hline \end{aligned}$ |
| Underground Equipment <br> Underground Line Material <br> Underground Line Equipment <br> Underground Cable | $\begin{gathered} 39 \\ 102 \\ 461 \end{gathered}$ | $\begin{aligned} & 0.2 \% \\ & 0.6 \% \\ & 2.8 \% \\ & \hline \end{aligned}$ | $\begin{array}{r} 1,540 \\ 1,239 \\ 15,363 \\ \hline \end{array}$ | $\begin{aligned} & 0.2 \% \\ & 0.2 \% \\ & 1.9 \% \end{aligned}$ | $\begin{gathered} 272,472 \\ 291,868 \\ 2,566,769 \\ \hline \end{gathered}$ | $\begin{aligned} & 0.2 \% \\ & 0.2 \% \\ & 1.5 \% \\ & \hline \end{aligned}$ |
| Service Equipment | 20 | 0.1\% | 2,486 | 0.3\% | 57,128 | 0.0\% |
| Substation Equipment | 170 | 1.0\% | 39,067 | 4.8\% | 3,983,684 | 2.3\% |
| Other | 171 | 1.0\% | 8,461 | 1.0\% | 1,115,431 | 0.6\% |
| Public/Customer | 1,312 | 8.0\% | 77.547 | 9.6\% | 9,722,799 | 5.6\% |
| Trees <br> On Right of Way Off Right of Way | $\begin{aligned} & 1,060 \\ & 4,136 \end{aligned}$ | $\begin{array}{r} 6.4 \% \\ 25.1 \% \\ \hline \end{array}$ | $\begin{gathered} 58,572 \\ 200,350 \end{gathered}$ | $\begin{gathered} 7.3 \% \\ 24.9 \% \end{gathered}$ | $\begin{aligned} & 16,486,840 \\ & 73,693,287 \\ & \hline \end{aligned}$ | $\begin{gathered} 9.5 \% \\ 42.3 \% \\ \hline \end{gathered}$ |
| Unknown | 1,589 | 9.6\% | 71.168 | 8.8\% | 8,301,027 | 4.8\% |
| Weather | 2.151 | 13.0\% | 100,911 | 12.5\% | 33,950,019 | 19.5\% |
| Total | 16,495 | 100\% | 806,230 | 100\% | 174,106,153 | 100\% |

Allegheny Power's Outage Management System (OMS) tracks the number of incidents recorded for a circuit. This number does not necessarily reflect the number of exact outages on a circuit. One outage may be recorded as multiple incidents on different phases or grouped to different sectionalizing devices, especially with sectionalizing large outages. It should be noted that the number of incidents on a circuit
may be overstated due to the way similar incidents may not have grouped together in the OMS. These also do not represent 'unique' incidents.
§ 57.195 (e) (6) Quarterly and year-to-date information on progress toward meeting transmission and distribution inspection and maintenance goals/objectives (FOR FIRST, SECOND AND THIRD QUARTER REPORTS ONLY).
a. A report attached as Appendix III provides a listing of updates to the planned T\&D goals for 2010.
b. AP's goals may vary slightly throughout the year as work may be modified to meet new or changing field conditions. Some work has more inherent uncertainty associated with establishing budgets and goals more than a year ahead of time.
$\oint 57.195$ (e) (7) Quarterly and year-to-date information on budgeted versus actual transmission and distribution operation and maintenance expenditures IN TOTAL AND DETAILED BY THE EDC'S OWN FUNCTIONAL ACCOUNT CODE OR FERC ACCOUNT CODE AS AVAILABLE. (For first, second and third quarter reports only.)

| O\&M Category | SepQTD Actual | SepQTD Budget |  | YTD Actus | YTD Budget |
| :---: | :---: | :---: | :---: | :---: | :---: |
| .. .. .. Distribution Admin_CC | \$ (67,172) | \$ | [ 333,138 ) | \$ (122,364) | \$ (660,045) |
| . .. . .. .. Distribution System Operstions_CC | \$ 584,291 | \$ | 523,217 | \$ 1,077,841 | \$ 1,046,433 |
| ... ... Asset Managemenk_CC | \$ $\quad 26,485)$ | \$ | 177,805 | \$ (36,668) | \$ 362,079 |
| .... .. . Distribution Support_CC | \$ 4,569,579 | \$ | 1,254,471 | \$ 8,717,916 | \$10,042,769 |
| ... .. .. Field Operations_CC | \$ 3,957,034 | \$ | 4.009,600 | \$ 8,158,131 | \$ 8,273,130 |
| ..... .. Distribution Foresty_CC | \$ 2.650 .781 | \$ | 2.180,502 | \$ 4,657,695 | \$ 4,320,236 |
| ..... .. Transmission Othel_LC | \$ 205.343 | \$ | [56.292) | \$ 446,147 | \$ (112,981) |
| - ...... .. Substations_CC | \$ 968,307 | \$ | 1,124,167 | \$ 2.101,896 | \$ 2,289,338 |
| -... .. .. .. .Technical Services - Defivery_CC | \$ 821,300 | \$ | 858,411 | \$ 1,469,892 | \$ 1,706,706 |
| . . . . . . . . . Transmission Forestry_CC | \$ 1,137,633 | \$ | 534,231 | \$ 1,866,092 | \$ 1,051,641 |
| ... .. .. T I Iansmission Projects_CC | \$ 29.787 | \$ | 128.421 | \$ 54,074 | \$ 262,484 |
| . .. .. .. Transmission SitimpCC | \$ 99.143 | \$ | 134,528 | \$ 207,696 | \$ 266,657 |
| . .. . .. EHV Projects_CC | \$ $[5,328]$ |  |  | \$ $\quad(2,156)$ | - |
| . .. .. . . . Dist Salety Training Qudity Assuance_CD | \$ 227,132 | \$ | 161.139 | \$ 504,643 | \$ 313,588 |
| . .. .. .. . . . Trans Reliabitity \& System Support_CC | \$ 59,665 | \$ | 59,394 | \$ 114,285 | \$ 117,576 |
| . .. .. .. ... . EMS Support CC | \$ 262,189 | \$ | 297,201 | \$ 564,436 | \$ 587,791 |
| . .. .. .. .. .. .Transmission System Operations_CC | \$ 508,775 | \$ | 482.299 | \$ 976,432 | \$ 968,922 |
| ... . .. ... .Transmission Operations Admin_CC | \$ 43,436 | \$ | 36,115 | \$ 68,482 | \$ 72,231 |
| Total | \$16,092,582 | \$ | 11,885,201 | \$28,824,471 | \$30,908,554 |

Note that negative amounts in parentheses in the table reflect general supervision and engineering overheads that are billed to external parties. These amounts are offsets to charges that are embedded in all other categories.
$\S 57.195$ (e) (8) Quarterly and year-to-date information on budgeted versus actual transmission and distribution capital expenditures; IN TOTAL AND DETAILED BY THE EDC'S OWN FUNCTIONAL ACCOUNT CODE OR FERC ACCOUNT CODE AS AVAILABLE. (For first, second and third quarter reports only.)

| Category | 3rd Quarter Actual | 3rd Quarter Budget | YTD Actuals | YTD <br> Board Approved |
| :---: | :---: | :---: | :---: | :---: |
| EHV Substation | \$ 639,481 | \$1,256,102 | \$3,384,201 | \$2,663,157 |
| EHV Lines | \$ 111,118 | \$833,825 | \$393,396 | \$1,084,803 |
| Transmission Substations | \$807,274 | 5 577,889 | \$ 374,806 | \$1,209,090 |
| Transmission Lines | -\$1,460,583 | \$385,588 | \$180,766 | \$4,206,996 |
| Distribution Substations | \$ 4,055,669 | \$3,390,688 | \$ 6,577,317 | \$9,780,431 |
| Distribution Lines | \$12,855,071 | \$ 11,303,924 | \$ 38,605,188 | \$ 32,967,541 |
| General Plant | \$5,169,301 | \$2,053,341 | \$8,805,836 | \$7,243,219 |
| Subtransmission Lines | \$ 554,174 | -\$ 14,190 | \$1,452,826 | -\$ 418,866 |
| Totals | \$22,731,506 | \$19,787,167 | \$ 59,774, 335 | \$58,736,372 |

§ 57.195 (e) (9) Dedicated staffing levels for transmission and distribution operation and maintenance at the end of the quarter, in total and by specific category (for example, linemen, technician and electrician).

| Position | Count |
| :---: | :---: |
| Lead Lineman Count | 84 |
| Lineman A Count | 48 |
| Sewiceman A Count | 81 |
| Serviceman Apprentice Count | 13 |
| Serviceman B Count | 18 |
| Serriceman C Count | 11 |
| SS Crew Leader Maintenance Count | 14 |
| SS Electrician A Count | 40 |
| SS Electrician B Caunt | 3 |
| SS Electrician C Count | 2 |
| System Transmission Crew Lead LinelWorker Count | 1 |
| System Transmission Crew Lineworker A Count | 4 |
| Utilityman A Count | 3 |
| Utilityman B Count | 2 |
| Grand Count | 324 |

§ 57.195 (e) (10) Quarterly and year-to-date information on contractor hours and dollars for transmission and distribution operation and maintenance.

Contract dollars include capital as well as O\&M work as available from AP financial reporting system. Note that much of AP's contracted work involves firm price contracts for which no man-hours are documented. Please note that the negative amount for the quarter is a reflection of overestimating prior commitments in the first quarter for accruals and actuals coming in less than forecasted.

| Quarter | Contract Dollars - Qtr | Contract Dollars - YTD |  |  |
| :---: | :--- | ---: | :--- | ---: |
| $1^{\text {st }}$ qtr | $\$$ | $10,535,413$ | $\$$ | $10,535,413$ |
| $2^{\text {nd }}$ qtr | $\$$ | $(87,533)$ | $\$$ | $10,447,881$ |
| $3^{\text {rd }} \mathrm{qtr}$ | $\$$ | $2,256,030$ | $\$$ | $12,703,911$ |

> § 57.195 (e) (11) Monthly call-out acceptance rate for transmission and distribution maintenance workers PRESENTED IN TERMS OF BOTH THE PERCENTAGE OF ACCEPTED CALL-OUTS AND THE AMOUNT OF TIME IT TAKES THE EDC TO OBTAIN THE NECESSARY PERSONNEL. A BRIEF DESCRIPTION OF THE EDC'S CALL-OUT PROCEDURE SHOULD BE INCLUDED WHEN APPROPRIATE.
a. Attached as Appendix IV is a report indicating call out acceptance for the each service center in AP Pennsylvania service territory.
b. The monthly call-out acceptance rate does not include statistics for crewmembers who are assigned ready-response duties, where applicable.
c. Allegheny Power implemented its Automated Resource Call Out System (ARCOS) on June 10, 2005 to track the amount of time to obtain necessary personnel.
d. The average callout acceptance time per worker per list called was 5.3 minutes in the quarter. This number represents the elapsed time per callout list divided by the number of people that accepted. This time includes ready response, which has an elapsed time of 0 minutes. The data is only for linemen and electrician callouts. Allegheny Power has developed a method to calculate average callout acceptance time per crew from our automated system; for the quarter, the average response time per crew was 5.9 minutes.

## Allegheny Power compliance with terms of July $20^{\text {th }}, 2006$ Reliability Settlement Petition Opinion and Order:

| Item | Description | Compliance Status |
| :---: | :---: | :---: |
| 1 | Make adjustments to vegetation maintenance practices to reduce its rights-ofway clearing cycle to no longer than four (4) years. | Allegheny Power currently manages Vegetation Maintenance (VM) work to provide optimization of reliability statistics within the constraints of our existing budget. We have developed a program that considers several circuit factors when scheduling and assigning specifications for VM work. These factors include tree related CMI over the past 3 years, time since last trimmed as well as \# of customers being served by any particular section of line as well as the whole circuit. This methodology, although it does not result in total vegetation management on a 4 year cycle has resulted in acceptable reliability statistics to date. |
| 2 | Make adjustments to vegetation program to include an assessment of off-right-of-way danger trees. | Off R-O-W danger trees continue to be evaluated during vegetation management cycle and removed if necessary and agreeable to tree owner. |
| 3 | Maintain 12-year pole inspection cycle for distribution and sub-transmission wood poles | A 12-year cycle inspection cycle is planned for poles. All 2009 pole inspection work has been completed. <br> Approximately $30 \%$ of the 2010 pole inspection program was completed in late 2009. AP has resumed the 2010 pole inspection program with expected completion this year. |
| 4 | Maintain 12-year facilities inspection cycle for distribution and subtransmission wood poles | Distribution and subtransmission equipment is inspected on a 12 -year cycle. Approximately $30 \%$ of the distribution and sub-transmission facilities inspections associated with the 2010 pole inspection program were completed in late 2009. AP has resumed the 2010 pole inspection program with expected completion this year. |
| 5 | Inspections to include visual inspections of pole, materials and equipment contained thereon from ground line to top of pole, hammer soundings, borings, excavation and treatment of pole. | Inspections include visual inspections of poles, equipment attached to poles, hammer soundings, excavation, and borings. |
| 6 | Perform a mid-cycle visual inspection of poles and equipment such that all circuits are inspected, on average, every 6 years. Incorporate reliability performance and performance of materials and equipment into the prioritization of circuits. | Mid-cycle inspections are made on average every six years. |
| 7 | Perform a line workforce study and substation workforce study | Complete |
| 8 | Deliver study to Parties within 60 days of final entry of non-appealable Order. | Complete- delivered to Local 102 on 10/24/06; PREA on 3/7/2007 |
| 9 | Discuss study with Parties within 10 days of delivery. | Met with Local 102 on 10/24/06 |
| 10 | Within 60 days of entry of final non-appealable order, provide parties with copies of all reliability-related reports filed with the Commission under 52 Pa . Code 57.195 and any additional monitoring reports or compliance reports that may be required under 52 Pa . Code 57.194(h)(1). | Effective 3rd quarter 2006 report. |
| 11 | In quarterly and annual reports, include a section reporting on compliance of settlement | Effective 3rd quarter 2006 report. |
| 12 | PREA/AEC - meet semi-annually (first meeting to be held no later than 45 days of the date of the final, non-appealable order | First meeting held 9/14/06 |
| 13 | PREA/AEC meeting - Discuss most recent outages with particular emphasis on those with duration $>120$ minutes | Discussed at 9/22/2010 semi-annual meeting |
| 14 | PREA/AEC meeting - Identify and agree on mutual delivery points that serve critical services/customers | Discussed at 9/22/2010 semi-annual meeting |
| 15 | PREA/AEC meeting - discuss five "worst performing" Delivery Points | Discussed at 9/22/2010 semi-annual meeting |

Appendix I - Worst Performing 5\% Distribution Circuit Statistics

| SCName | SSName | CktName | CustServed | DCII | SAIFI | SAIDI | CAIDI | ASAI | CMI | Custintrup | Circuithockouts | Incidents | Miles |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Amold | ALL DAM NO. 5 | SCHENLEY | 188 | 66 | 1.6 | 274 | 170 | 0.9994787 | 51314 | 301 |  | 16 | 6 |
| Amold | ALLERIVER | ALLERVER | 180 | 63 | 2.44 | 259 | 106 | 0.9995072 | 46697 | 439 |  | 8 | 13 |
| Arnold | TUNNELTON | TUNNELTON_DIST | 100 | 20 | 1.1 | 762 | 691 | 0.9985502 | 75980 | 110 | - | 11 | 6 |
| Armold | WATSON | WATSON | 339 | 56 | 1.78 | 401 | 225 | 0.9992371 | 135884 | 604 | - | 28 | 23 |
| Butler | BUENA VISTA | HOOKER | 302 | 49 | 1.29 | 472 | 367 | 0.999102 | 142286 | 388 | - | 12 | 23 |
| Butler | HARRISVILLE | HARRISVILLE | 0 | 100 | 0 | 0 | 0 | 1 | 0 | 0 | - | 0 | 0 |
| Butler | KARNS CITY | DAUGHERTY | 100 | 59 | 0.15 | 99 | 658 | 0.9998116 | 9877 | 15 |  | 8 | 5 |
| Charleroi | SMITHTON | HUTCHINSON | 861 | 85 | 0.51 | 71 | 139 | 0.9998649 | 60762 | 437 | - | 21 | 37 |
| Charleroi | VANCEVILLE | VANCEVILLE | 1337 | -39 | 2.08 | 1752 | 842 | 0.9966867 | 2341917 | 2781 |  | 79 | 106 |
| Clarion | NEW BETHLEHEM | CLIMAX | 1125 | 84 | 2.25 | 267 | 119 | 0.999492 | 300627 | 2536 |  | 34 | 78 |
| Hyndman | PURCELL | ARTEMAS | 538 | 77 | 1.24 | 155 | 124 | 0.9997051 | 83052 | 669 |  | 19 | 99 |
| Jeannette | PENN | GASKILL AVE | 2277 | 63 | 2.54 | 250 | 98 | 0.9995244 | 568803 | 5775 |  | 61 | 39 |
| Jeannette | SEWICKLEY | ADAMSBURG | 2034 | 51 | 3.29 | 377 | 114 | 0.9992827 | 766368 | 6696 |  | 42 | 27 |
| Jeannette | YOUNGWOOD | HUNKER | 796 | 90 | 0.29 | 34 | 117 | 0.9999353 | 27237 | 233 |  | 14 | 32 |
| Jefferson | GREENSBORO | POLAND | 154 | 20 | 1.68 | 868 | 516 | 0.9983486 | 133600 | 259 |  | 18 | 9 |
| Jefferson | RUTAN | BRISTORIA | 1184 | 14 | 3.26 | 988 | 303 | 0.9981202 | 1169005 | 3864 | - | 110 | 193 |
| Jefferson | RUTAN | MNDRIDGE | 1206 | -18 | 0.9 | 1060 | 1172 | 0.9979833 | 1279058 | 1091. | - | 51 | 179 |
| Latrobe | STAHLSTOWN | KREAGER | 277 | 33 | 5.3 | 340 | 64 | 0.9993531 | 94054 | 1468 |  | 35 | 26 |
| Latrobe | STAHL.STOWN | MANSVILLE | 499 | 77 | 0.58 | 133 | 229 | 0.999747 | 55271 | 289 |  | 15 | 41 |
| McConnellsburg | CLEARVILLE | CLEARVILLE | 612 | 60 | 1.35 | 348 | 258 | 0.9993379 | 213305 | 827 | - | 18. | 108 |
| McConnelisburg | EMMAVILLE | STONEY BREAK | 364 | 58 | 2.26 | 356 | 158 | 0.9993227 | 129720 | 821 | - | 13 | 46 |
| McConnellsburg | WARFORDSBURG | BUCK VALLEY | 793 | 78. | 0.27 | 82 | 305 | 0.999844 | 64682 | 212 |  | 15. | 91 |
| McDonald | HICKORY | HICKORY | 930 | 26 | 1.47 | 765 | 521 | 0.9985445 | 711333 | 1366 | - | 35. | 72 |
| McDonald | SMITH | FLORENCE | 775 | 47 | 3.34 | 442 | 133 | 0.9991591 | 342773 | 2586 | - | 44 | 80 |
| Pleasant Valley | IRON BRIDGE | ALVERTON | 685 | 32 | 2.09 | 737 | 352 | 0.9985978 | 504272 | 1432 | - | 23. | 26 |
| Pleasant Valley | KING FARM | BELSON RUN | 474 | 76 | 1.43 | 159 | 111 | 0.9996975 | 75468 | 680 |  | 20 | 19 |
| St Marys | CARBON CENTER | BUCKTAIL | 650 | 86 | 0.77 | 72 | 93 | 0.999863 | 46598 | 501 | - | 25 | 39 |
| St Marys | DRIFTMOOD | DRIFTWOOD | 967 | 21 | 4.96 | 727 | 147 | 0.9986168 | 702329 | 4794 | - | 24 | 54 |
| St Marys | WEEDVILLE | BYRNEDALE | 410 | 42. | 2.27 | 582 | 257 | 0.9988927 | 238166 | 928 | 1 | 12 | 21 |
| St Marys | WEEDVILLE | MEEDVILLE | 1354 | 64 | 1.38 | 303 | 219 | 0.9994235 | 409899 | 1875 | 1 | 26 | 77 |
| State College | FOWLER | BALD EAGLE | 408 | -16 | 4.44 | 1442 | 325 | 0.9972565 | 587700 | 1811 | - | 47 | 42 |
| State College | NITTANY NO. 2 | CLINTONDALE | 701 | 61. | 3.07 | 236 | 77 | 0.999551 | 165425 | 2155 | - | 18 | 30 |
| State College | NITTANY NO. 2 | NITTANY | 520 | 57 | 3.27 | 283 | 86 | 0.9994616 | 147005 | 1700 | - | 27 | 35 |
| State College | PORT MATILDA | PORT MATILDA | 1389 | 19 | 4.89 | 764 | 156 | 0.9985464 | 1061776 | 6797 | - | 81 | 102 |
| State College | WATERVILLE | WATERVILLE | 352 | -61 | 8.17 | 1899 | 232 | 0.996387 | 668203 | 2875 | - | 36 | 20 |
| Uniontown | EAST MILLSBORO | EAST MILLSBORO | 173 | -22 | 1.9 | 1471 | 775 | 0.9972013 | 254833 | 329 | - | 16 | 16 |
| Uniontown | HENRY CLAY | MARKLEYSBURG | 1063 | 25 | 3.67 | 779 | 213 | 0.9985179 | 828289 | 3897 | 1 | 37 | 63 |
| Uniontown | SUMMMIT | SUMMIT (SEATON RD.) | 294 | 49 | 3.16 | 426 | 135 | 0.9991895 | 125099 | 927 | - | 26 | 28 |
| Washington | AVELLA | W MIDDLETOWN | 1139 | 21 | 3.67 | 850 | 232 | 0.9983828 | 968668 | 4175 | - | 56. | 107 |
| Washington | LAGONDA | CLUB FORTY | 903 | 72 | 0.49 | 157 | 323 | 0.9997013 | 141684 | 439 | - | 19 | 36 |
| Washington | LAGONDA | LAGONDA | 1387 | 53 | 2.03 | 439 | 217 | 0.9991648 | 608664 | 2810 | - | 65 | 73 |

Appendix II - Worst Performing 5\% Distribution Circuit Remedial Actions

| SCName | SSName | CkName | Actlons Taken or Planned | Stalus |
| :---: | :---: | :---: | :---: | :---: |
| Arnold | ALL-DAMNO. 5 | SCHENLEY | Three isolated Incidents accounted for $97 \%$ of the cmi on this circult Circult reylew planned 2009 GADI completed | Outage maps were created to identify outage and sectionalizing locations. Outage data was used to identify outage causes and sources of lockouts (distribution, substation, or transmission). No stgnificant improvement opportunities were Identified continue to montor rellability in 2010. |
| Arnold | ALLEEIVER | ALLERIVER | Three Incldents accounted for 85\% of the CMI on this small circuit. Trees trimmed in 2009. Circult review planned. 2009 <br> CAIDIREview | Outage maps were created to identify outage and sectionalizing locations. Outage data was used to identify outage causes and sources of lockouts (distribution, substation, or transmission). No slgnificant Improvement opportunities were ldentifed Continue to montor rellablity in 2010. |
| Arnold | TUNNELTON | TUNNELTON PIST | Lockouts on 4 days contributed over $90 \%$ of the CMI for the one-year perlod. Trees trimmed In 2009. Circuit review planned 2009 cAlpl completed | Outage maps were created to identify outage and sectionalizing locations. Outage data was used to Identify outage causes and sources of lockouts (distribution, substation, or transmission). No slgnificant improvement opportunities were Identifed Continue to monitor reliability in 2010. |
| Arnold | NATSON | WATSON | Off right-of-way trees accounted for $3 / 4$ of the cmi and approximately $1 / 2$ of the cml occurred on 1 day. Trees trimmed In 2009. 2010 CAIDIP!anned | Monitor reliability. Circult performing well outside of Isolated 1 day event |
| Butter | OUENA VIST | HOOKEP | orightof-way trees accounted for $97 \%$ of the cmi and over $70 \%$ occurred on one incldent. 2009 CAID completed | Monitor reliability outstde of off ROW tree issues. ... |
| Butler | HARRISYILLE | HAP | One lockout due to of right-of-way tree on this smali circuit of 2 customers accounted for $100 \%$ of the annual CMI. Trees trimmed in 2008. 2009 CAIDI Revlew | Translent protection is being added to the circult. Monitor reliability on this small clrcuit. |
| Butler | RNS |  | One lncident on this circuit with 1 customer dive to of right-ofway tree accounted for all of the cmi on this circult. 2009 CAIDI Revlew |  |
|  | NS |  | Pubilc causes (venicle into poie and cut tree) accounted | Outage causes outside AP control Monior |
| Charlerot | SMITHTON | HUTCHINSON | 80\% of the cmi on thls circuit 2009 CAIPI completed . | rellabillty.................................. |
| charterot | YANCEYILLE | VANCEVILLE | Animals getting into the substation on 2 ocesasions accounted for $60 \%$ of the cm on the circuit. Tree trimming being evaluated for 2011 2008 CAIDI completed | Outage mans were create to identify outage and sectionalizing locations. Outage data was used to identiry outage causes and sources of lockouts (distribution, substation, or transmission). No significant improvement opportunities were Identifled continue to monltor reliablity in 2010. |
| Clarlon | NEW <br> BETHLEHEM | CLIMAX | Two incidents due to unknown and tree causes accounted for over $1 / 2$ of the cml on this circult. Trees trimmed in 2008. Clrcult review planned. 2009 CAIDI completed and 2010 CAIDI prolect planned | Outage maps were created to identify outage and sectionalizing locations. Outage data was used to tdentify outage causes and sources of lockouts (cistribution, substation. or transmission). No slgnificant Improvement opportunities were Identinad Continue to monitor reliablity in 2010. |
| Hyndman | PURCEL | ARTEMAS | Two days accounted for $65 \%$ of the annual CMit on this circuit. Approximately $70 \%$ of the annual CMI was caused by off right-or-way trees. 2010 fuse coordination completed | Monitor rellablity outside of ofr Row tree issues. |
| Jeannette | PENN | OASKILL AVE | Two Incldents accounted for nearly $80 \%$ of the annual CMI. Tree trimming being evaluated for 2011.2010 CAIDI planned | Monitor rellabilty Evaluate tree trimmlng for 2011. |
| Jeannette | SEVICKLEY | ADAMSEURO | Nearly $1 / 2$ of the cmi occurred on 1 day due to weatherfhigh wind. Tree trimming planned for 2009/2010. Clrcuit reconflgurstion planned for 2010 . 2010 CAIDI planned | Monitor reliability after tree trimming. |
| Jeannette | YOUNOWOOD | HUNKER | Three incldents accounted for over $95 \%$ of the cm on thls clrcuit. Clrcult review planned. 2009 CAIDI completed and 2010 CAIDI planned. | Outage maps were created to lo entify outage and sectionalizing locations. Outage data was used to identiry outage causes and sources of lockouts (distribution, substation, or transmission). No slgnificant improvement opportunities ware Identified Continue to monltor rellablity in 2010. |
| Jeffersan | OREENSEORO | POLAND | Over haif of the annuai c̈mi on this small circult occured on one day. Tree trimming beling evaluated for 2011. Circult walkdown in 2010. 2010 CAIDI planned | Monitor rellabllity. Review results of circuit Inspection. |

Appendix II - Worst Performing 5\% Distribution Circuit Remedial Actions (cont'd)

| ScName | SsName | CktName | Actions Taken or Planned | Status |
| :---: | :---: | :---: | :---: | :---: |
| Sefrerson | RUTAN | PR | Off right-of-way trees accounted for over 80\% of the emi on this clrcuit, which experlenced no lockouts. Tree trimming being evaluated for 2011 . Circult reviews to be performed 2 nd quarter. 2008 CAIDI Completed. Reconductoring prolect completed in 2009 | Outage maps were created to Identity outage and sectlonalizing locations. Outage data was used to identify outage causes and sources of lockouts (distribution, substation, or transmission). No significant improvement opportunities were Identifed. Plans to evaluate tree trlmming for 2011. |
| yeferson | RTOTS | WNDT | Over $80 \%$ of the cmi on this circuit was causea by weather and off right-of-way trees. Tree trimming belng evaluated for 2011 . Clrcuit spilt planned to reduce erposure. A portion of the circuth was transferred to an adjacent substation in 2009 | Montor reilabilus. Evaluate trea mimming for 2017 |
| Latrobe | STAHLSTONN | KRPEAOER | Approximately three-fourths of the annual CMI was caused by oft right-of-way trees. Four incldents accounted for about 80\% or the CMI, 2009 CAIDI and 2011 CAIDI review |  |
| Latrobe | STAHLETOMN | MANSVILLE | On right-of-way trees accounted for over 80\% of the comi for the year. Over $1 / 2$ of the cmi occurred on fust 1 day. 2009 CAIDI Revlew | Monitor rellability. Clrcuit is performing well outside of one incident-day. |
| McConnel Isburg | CLEARVI | CLEARVILLE | Nearly $70 \%$ of the cml on this circuit resulted from off right-orway trees and weather (icelsnow). 2009 and 2010 CAIDI completed | This circuit was reviewed in 2003 and was recommended for a full clrcult coordination as well as extensive CAIDI work. This work was completed sarly !n 2010. |
| McConnel 1sburg | EMMAV!LLEE | STONEY PR | Off right-of-way trees accounted for 1/2 and weather accounted for $1 / 4$ of the cmi on thls circuit. 2009 CAIDI Completed | The Stoneybreak circult is due for a Circuit Review in 2010 as wel! as a fullown caloln 2011 |
| McConnel Isburg | WARFORDSBU RO | BUCK VALLE | Off right-or-way trees accounted for over $80 \%$ of the cmi on this circult. Nearly $1 / 2$ or this occurred In 1 incldent. The one mile of cross country line between location 24123 and 24107 has caused numerous outages. This line is inaccessible to trucks. It is also necessany for scouts to walk the right of way because the line is not visible from any road. 2008 CAIDI Completed | This clrcuit was coordinated and had a null CAID: completed on it in 2007. A tle line is being proposed for the 2011 budget to ellminate a sectlon of line that is difficutto scout and work on. |
| Mcponald | HICKORY | HICKORY | Pubilc vehicies hitting poles accounted for neariy $1 / 2$ or the cml on this circult. Trees trimmed in 2008. 2009 CAIDI Completed | Monitor rellablity. Clrcult is performing weel outside of publlc causes. |
| Actornald | SMITH | FLORENCE | One isolated incident accounted for nearly $1 / 2$ of the cmi on this circult for the one-year period. Trees trimmed in 2008 2008 CAIDI Completed and 2009 Reconducting project completed | Isolated Incldent Monltor rellabl!ty. |
| Pleasant Valley | IRON GRIPOE | ALVERTON | One lockout accounted for over $1 / 2$ of the cmi for the year. Trees trimmed in 2008. 2010 CAIDI Planned. Project to replace switchgear for hospltal completed in 2010 | Isolated Incident. Monitor rellabilit. |
| pleasant valtey | KINO FARM | EELSONRUN | One isolated incident accounted for over $60 \%$ of the cmi on this circuit. 2010 CAIDI planned. |  |
| St Marys | CAFBON CENTER | BuckTAll | One isolated incident on this circuit accounted for $90 \%$ of the cmil for the one-year period. 2009 CAlDI Completed | lated Incldent Monltor rellablity |
| St Marys | ORIFTVOOR | ORIFTWOOD | A circuit iockout on i day accounted for over ह́o o or the cmi. Tree trimming belng evaluated for 2011. 2009 CAIDI completed | 1solated Inctent Monitor rellabilly |
| St Marys. | WEEPVILLE | BYRNEPALE | Two incidents due to weather and off right-of way trees accounted for $93 \%$ of the cmi on this circuit.Tress trimmed in 2008. 2009 CAlDI completed | Monitor reliability. Outage causes outside AP control. |
| St Marys | WEEDVILCE | WEEDVILLE | Offight-ot-way trees and uriknown causes accounted ror over $80 \%$ of the cml on this clrcuit. One incident accounted for $72 \%$ of the annual cmi due to trees. Tree trimming being evaluated for 2011. 2008 calpl completed | Monitor rellabillty Evaluate tree trimming for 2011. |
| State College | FOWLER | BALDEAOLE | Three incidents accounted for nearly all ( $97 \%$ ) of the CMI on the circult. Clrcult review planned. 2008 calDl completed | Outage mans were created to identify outage and sectionalizing locations. Outage data was used to identlify outage causes and sources of lockouts (distribution, substation, or transmission). No significant improvement opportunities were Identined. Continue to monitor rellability $\ln 2010$. |

Appendix II - Worst Performing 5\% Distribution Circuit Remedial Actions (cont'd)

| SCName | SSName | CktName | Actions Taken or Planned | Status |
| :---: | :---: | :---: | :---: | :---: |
| State College | NITTANYNO. 2 | CLINTONDALE | Almost $90 \%$ of the annual CMl occurred on one lockout due to :a failed substation transformer insulator. 2009 CAIDI completed | solated incident. Monitor reliapility. |
| State College | NITTANYNO. 2 | NITTANY | Over $70 \%$ of the annual CMI occurred on one lockout due to a ;failed substation transformer insulator. 2009 CAIDI completed | Isolated Incident. Monitor reliability. |
| State College | PPRTMATILDA | PORT MATILDA | Two isolated incidents accounted for $87 \%$ of the cmi on this circuit. Circuit review planned. Tree trimming being evaluated for 2011. Circuit conductoring in 2010. 2008 CAIDI completed. | Monitor reliability. Evaluate tree trimming for 2011. Reconductoring complete. |
| State College | WATERVILE | WATERVILLE | Circuit fed from foreign utility. Alternate supply options limited. Considered distributed generation as altemate feed option (costly). Isolating points and fault indicators added as part of CAIDI improvement program. Lockouts due to foreign utility feed caused $84 \%$ of the annual CMI. 2008 CAIDI completed. | CAIDI work completed in 2008. Tree trimming performed in 2009. Monitor reliability. |
| Uniontow <br> n | EAST <br> MILLSBORO | EAST MILLSBORO | Two incidents accounted for $80 \%$ of the annual CMI. Circuit review planned. 010 CAIDI planned. Project completed to install automatic airswitches on the subtransmission feeding East Mllisboro SS in 2009. | Outage maps were created to identify outage and sectionalizing locations. Outage data was used to identify outage causes and sources of lockouts (distribution, substation, or transmission). No significant improvement opportunities were identified. Continue to monitor reliability in 2010. |
| Uniontow <br> n | HENRYCLAY | MARKLEYSBURG | Two incidents involving public vehicles hitting poles accounted for $43 \%$ of the annual CMI. Off right of way trees accounted for another 25\% CMI. Tres trimming being evaluated for 2011 2008 CAIDI completed and 2010 CAlDI planned. Project completed in 2009 to install VLRs on Markleysburg circuit for improyed rellability: | Monitor reliability. Evaluate tree trimming for 2011. |
| Uniontow <br> n | SUMBIT | SEATONRD | Public vehicle hitting pole and lightning in 2 separate incidents accounted for $2 / 3$ of the cmi on this circuit. Circuit balancing project planned for 2010. 2010 CAdDI planned | Monitor reliability. Circuit is performing well outside of public causes |
| Washingt on | AVELLA | WMIDDLETOMN | Weather affects accounted for nearly $1 / 2$ of the cmi on this circuit. Tree trimming being evaluated for 2011.2008 CAIDI completed | Monitor reliability Eyaluate tree trimming for 2011. |
| Washingt on | LAGONDA | CLU日 FORTY | Off right-of-way trees accounted for approximatedly $1 / 2$ of the cml and snow and public vehicles accounted for $20 \%$ each. Trees trimmed in 2008. 2009 CAIDI completed | Monitor reliability. Outage causes outside AP control. |
| Washingt on | LAGONDA | LAGONDA | A public car hitting a pole accounted for $88 \%$ of the cmion this circuit for the one-year period. Tree trimming being evaluated for 2011. 2010 CAIDI | Monitor reliability. Circuit is performing well outside of public causes. |

## Appendix III - Goals Progress

| Job Type | Unit of Measurement | Gaal | Completed | \% Complete |
| :---: | :---: | :---: | :---: | :---: |
| Scheduled Circuit Inspection and Maintenance Program | \# circuits | 56 | 52 | 93\% |
| Scheduled Circuit Maintenance Work from Employee Inspections | \#work requests | 76 | 38 | 50\% |
| CAIDI 2 Projects | \# projects | 263 | 224 | 85\% |
| Worst Performing Circuit Projects | \#projects | 16 | 4 | 25\% |
| Small Planning projects | \#projects | 45 | 26 | 58\% |
| Large Planning projects | \#projects | 6 | 3 | 50\% |
| Miscellaneous Maintenance | man-hours: | 198,060 | 174,159 | 88\% |
| Line Recloser Replacements | \# reclosers | 149 | 98 | 66\% |
| Underground Equipment Inspections | \# locations | 14300 | 5,193 | 36\% |
| Underground Cable Replacement | \# feet | 45000 | 19,557 | 43\% |
| Prionty Pole Replacements | \#poles | 201 | 119 | 59\% |
| Annual overhead facility inspection, pole inspection, and pole treatment done by contractors | \# poles | 59,029 | 20,954 | 35\% |
| Transmission Aerial Saw | \# of line miles | 47 | 47 | 100\% |
| Transmission Aerial Spray | \# of acres | 355 | 355 | 100\% |
| Transmission Ground Spray | \# of acres | 1085 | 931 | 86\% |
| Transmission Tree Work | \# of line miles | 114 | 99 | 87\% |
| Subtransmission ROW Vegetation Maintenance | \# of line miles | 567 | 390 | 69\% |
| Distribution ROW Vegetation Maintenance | \# line miles: | 1223 | 699 | 57\% |
| Transmission Comprehensive Patrol | \#transmission lines | 4 | 4 | 100\% |
| Transmission General Patrol | \#transmission lines | 121 | 144 | 119\% |
| SS Work (Preventative maintenance only) | man-hours: | 19,865 | 13,462 | 68\% |

## Appendix IV - Callout Acceptance



## Appendix V-5\% Distribution Circuit Improvement Index (DCII)

AP calculates the DCII to provide a single index for ranking circuits. The DCII compares the SAIFI, SAIDI, CAIDI and ASAI for each circuit to the 5-year system averages of each index and combines them into a single index. An example of this calculation is shown below:

| Index | System Average | $\frac{\text { Sample Circuit }}{\text { Index }}$ |
| :--- | :---: | :---: |
| SAIFI | 0.66 | 2.32 |
| SAIDI | 181.95 | 258.8 |
| CAIDI | 275.71 | 176.23 |
| ASAI | 0.999654 | 0.999769 |

1) The SAIFI, SAIDI and CAIDI are compared to the system average indexes.

$$
\begin{array}{ll}
\text { Actual SAIFI / System Average SAIFI } & =2.32 / 0.66 \\
\text { Actual SAIDI / System Average SAIDI } & =258.8 / 181.95=3.52 \\
\text { Actual CAIDI / System Average CAIDI } & =176.23 / 275.71=0.42 \\
=0.64
\end{array}
$$

2) To permit the average to equal 70 percent this ratio is then inversely proportioned:

$$
\begin{aligned}
& \mathrm{SF}=1-(0.3 \times(\text { Actual SAIFI } / \text { Average SAIFI }))=1-(0.3 * 3.52)=-0.0560 \\
& \mathrm{SD}=1-(0.3 \times(\text { Actual SAIDI } / \text { Average SAIDI }))=1-(0.3 * 1.42)=0.5740 \\
& \mathrm{CD}=1-(0.3 \times(\text { Actual CAIDI } / \text { Average CAIDI }))=1-(0.3 * 0.64)=0.8080
\end{aligned}
$$

3) The sum of the values is then divided by 3 to assign each index an equal weight in the calculation.

$$
(\mathrm{SF}+\mathrm{SD}+\mathrm{CD}) / 3=(-0.0560+0.5740+0.8080) / 3=0.4420
$$

4) The Actual ASAI is then multiplied directly to this value to get the interruption factor which when multiplied by 100 provides the DCII.
$((\mathrm{SF}+\mathrm{SD}+\mathrm{CD}) / 3) * \mathrm{ASAI} \times 100=\mathrm{DCII}=0.4420 * 0.999769 * 100=44.19$

## Appendix VI - Major Event

## COMMONWEALTH OF PENNSYLVANIA

 PENNSYLVANIA PUBLIC UTILITY COMMISSION P.O. BOX 3265. HARRISBURG, PA 17105-3265
## JAMES E. BARREL

RELIABILITY ENGINEER
ALLEGHENY POWER
800 CABIN HILL DRIVE
GREENSBURG, PA 15601

Re: Request to the Pennsylvania Public Utility Commission for Exclusion of Major
Outage for Reliability Reporting Purposes

Dear Mr. Harrell:
On October 4, 2010, Allegheny Power (d/b/a West Perm Power Company) filed a request for exclusion of major outage for reliability reporting purposes in accordance with the requirements of the Commission's Order entered May 11,2004 , at M-00991220.

This request relates to service interruptions associated with a storm system that contained strong winds and high lightning strikes that affected Pennsylvania starting on Septeraber 22, 2010. Allegheny Power states that the event caused service interruptions beginning September 22, 2010, al $3: 12 \mathrm{p} . \mathrm{m}$, with full customer restoration on \$epterber 25, 2010, at It:30 pm. Approximately 85,584 customers bad sustained interruptions out of a total customer base of 712,320 . The interruptions were spread throughout the service territory.

Upon review of the company's filing, it appears that the service interruptions described by Allegheny Power qualify as a major event, as defined in 52 Pa. Code $\$ 57.192$. Therefore, der request for exclusion of service interruptions for reporting purposes is hereby approved. However, the Commission's approval is contingent upon the possibility that subsequent audits, reviews, and inquiry, in any Commission proceeding, may be conducted, pursuant to 52 Pa . Code 857.197 (relating to Reliability investigations and enforcement).

In addition, this approval will apply only to the natter and parties specifically and clearly defined under this instant filing.

If you are dissatisfied with the resolution of his matter, you may, as set forth in 52 Pa . Code $\$ 5.44$, file a petition with the Commission within 10 days of the date of this letter.


C
Daniel Searfoorce, FUS
Dermis Hostler, Audits
Blaine Loper, CEEP
Darren Gill CEEP
Elaine McDonald, FUS
Kathleen Aunkst, Secretary's Bureau

Re: 2010 Third Quarter Reliability Report of Allegheny Power

CERTIFICATE OF SERVICE
I certify that this $1^{\text {st }}$ day of November, 2010, I have served a true and correct copy of the Reliability Report of Allegheny Power, by first-class mail, postage prepaid, upon the following:

## Office of the Consumer Advocate

555 Walnut Street
Forum Place, $5^{\text {th }}$ Floor
Harrisburg, PA 17101-1923
Office of Small Business Advocate
Suite 1102 Commerce Building
300 North Second Street
RECEIVED
NOV 12010

Harrisburg, PA 17101
David J. Dulick
Pennsylvania Rural Electric Assn.
212 Locust Street, $2^{\text {nd }}$ Floor
Harrisburg, PA 17101
Scott J. Rubin, Esquire
Utility Workers Union of America
333 Oak Ln.
Bloomsburg, PA 17815

Date: November 1, 2010



