

LEGAL SERVICES

OMIGINAL

800 Cabin Hill Drive Greensburg, PA 15601-1689 PH: (724) 838-6210 FAX: (724) 838-6464 jmunsch@alleghenyenergy.com

August 1, 2006

VIA FEDERAL EXPRESS

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

Re: Second Quarter 2006 Reliability Report of Allegheny Power

Dear Secretary McNulty:

L-00030161

Enclosed please find an original and six copies of the Second Quarter 2006 Reliability Report of Allegheny Power. This report is filed by Federal Express and is deemed filed today, August 1, 2006. Copies have been served on the Office of Consumer Advocate and the Office of Small Business Advocate.

Very truly yours,

John J. Mensel John L. Munsch Senior Attorney

cc: Thomas Sheets-PAPUC- Bureau of Audits

DOCUMENT FOLDER

L-00030161

Allegheny Power Quarterly Report for Second Quarter 2006

This quarterly report is being submitted in accordance with <u>Title 52. Public Utilities - Part I. Public Utility Commission - Subpart C. Fixed Services Utilities - Chapter 57. Electric Service Subchapter N. Electric Reliability Standards.</u>

§ 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.

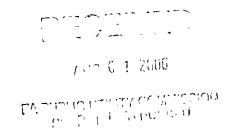
James D. Cormack General Manager, Distribution Reliability (724) 838-6540 jcormac@alleghenypower.com

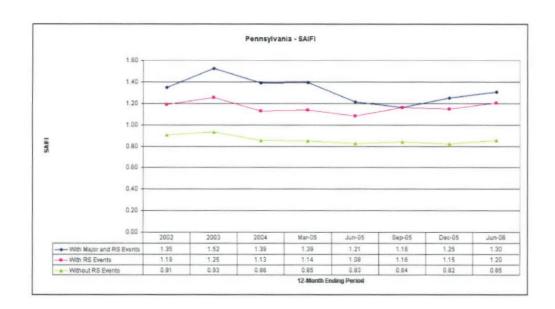
DOCUMENT FOLDER

§ 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 second quarter of 2006. 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 events is attached as Appendix VI in form of final 'Distribution System Outage Reports' reports as previously issued to the Commission if applicable.
 - i. There were no Major Events in the second quarter.
- 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. Although not excluded from statistics, AP's Pennsylvania service territory experienced several minor events ('RS Events') in the past 12 months characterized by having received a severe weather alert accompanied by at least 5,000 Allegheny Power Company customers interrupted. The following chart shows the effect on SAIFI of Major Events and RS Events for Pennsylvania customers through 2nd quarter 2006:







§ 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 June 2006. 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 | Current Quarter |
|-------------|------------|----------|-----------|--------------------|
| Reliability | Settlement | 12-Month | 3-Yr Avg. | Performance |
| Indices | Benchmarks | Standard | Standard | (Rolling 12-month) |
| SAIFI | 1.05 | 1.26 | 1.16 | 1.21 |
| CAIDI | 170 | 204 | 187 | 180 |
| SAIDI | 179 | 257 | 217 | 217 |

Data supporting indices:

| Zone | Incidents | Affected Grids/ Structures | Interrupted Customers | Avg Cust Served | kVA | Calls | CMI | SAIDI | ASAI | CAIDI | SAIFI |
|--------------|-----------|-------------------------------|--------------------------|--------------------|-------------|---------|-------------|-------|----------|-------|-------|
| Pennsylvania | 17,236 | 17,234 | 838,503 | 696,243 | 8,468,168.6 | 119,323 | 150,687,033 | 217 | 0.999588 | 180 | 1.21 |

§ 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 Circuit Improvement Index Ranking, which incorporates reliability statistics at a local level to further address individual customer satisfaction. The report is attached as Appendix I.
- b. A description of the Circuit Improvement Index process 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 poor 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 also continued a Reliability Improvement Initiative (RIPInit) for 2006 to review over-current protection on poor performing and high-density distribution circuits. This initiative focuses on installing additional sectionalizing equipment to reduce main line exposure and to minimize the number of customers impacted by forced interruptions. Many of these RIPInit circuits are also on the worst performing circuit list.
- d. AP has initiated a circuit improvement initiative 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 70% of all customer interruptions are caused by non-equipment-related causes. Also note that 98% of customers 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 | Ï | Customers Inte | rrupted | Customers Minutes I | nterrupted |
|------------------------------|-----------------|---------|-----------------|------------|---------------------|------------|
| | 12 Month ending | June 06 | 12 Month ending | j June (16 | 12 Month ending | June CG |
| | Number | Percent | Number | Percent | Number | Percent |
| Animals | _1,405 | 8.3% | 40,678 | 4.9% | 4,620,742 | 3.1% |
| Overhead Equipment Failure | | | | | | |
| Overhead Line Equipment | 1,183 | 7.0% | 30,669 | 3.7% | 4,057,742 | 2.7% |
| Overhead Line Material | 1,688 | 9.9% | 118,719 | 14.3% | 13,247,401 | 8.8% |
| Overhead Wire | 1,221 | 7.2% | 62,027 | 7.4% | 7,80 4 ,165 | 5.2% |
| Underground Equipment | | | | | | |
| Underground Line Material | 36 | 0.2% | 536 | D.1% | 93,471 | 0.1% |
| Underground Line Equipment | 85 | 0.5% | 1,000 | D.1% | 299,439 | 0.2% |
| Underground Cable | 503 | 3.0% | 14,777 | 1.8% | 4,346,068 | 2.9% |
| Service Equipment | 60 | 0.4% | 90 | 0.0% | 15,098 | 0.0% |
| Substation Equipment | 68 | 0.4% | 17,885 | 2.1% | 2,857,401 | 1.9% |
| Other | 208 | 1.2% | 19,004 | 2.3% | 1,640,552 | 1.1% |
| Public/Customer | 1,903 | 11.2% | 119,718 | 14.4% | 19,959,471 | 13.3% |
| Trees | | | | | | |
| On Right of Way | 93 | 0.5% | 4,875 | 0.6% | 943,134 | 0.6% |
| Off Right of Way | 3,825 | 22.5% | 191,066 | 22.9% | 49,586,610 | 33.1% |
| Slide into Line from off ROW | 14 | 0.1% | 245 | 0.0% | 57,253 | 0.0% |
| Unknown | 1,755 | 10.3% | 84,364 | 10.1% | 11,128,998 | 7.4% |
| Weather | 2,969 | 17.4% | 127,238 | 15.3% | 29,275,977 | 19.5% |
| Total | 17,016 | 100% | 832,891 | 100% | 149,933,522 | 100% |

§ 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 Ensure Reliable Service work for 2006.
- 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.

§ 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.)

a. Please note that AP's financial expenditure reporting system is based on a hierarchical view of the company. Cost categories may change as individual groups are sometimes realigned but the total T&D O&M expenditures will remain consistent.

| TAD A | Q2 | 2006 Budget | 02 | | _ | YTD 2006 | ľ | YTD 2006 |
|-----------------------------------|----------|-----------------|-------|-----------------|------|----------------|----|---------------|
| T&D Area | <u> </u> | (\$1000) | | (\$1000) | Вú | ıdget (\$1000) | ΑC | tual (\$1000) |
| Distribution DEPT | \$ | (85) | \$ | (121) | \$ | (229) | \$ | (292) |
| Distribution Support DEPT | \$ | 1,377 | \$ | 1,578 | \$ | 2,252 | \$ | 2,662 |
| Field Operations DEPT | \$ | 4,764 | \$ | 5,211 | \$ | 9,771 | \$ | 10,261 |
| Forestry DEPT | \$ | 3,748 | \$ | 3,666 | \$ | 7,330 | \$ | 6,541 |
| Transportation DEPT | \$ | 4 | \$ | 5 | \$ | 9 | \$ | 10 |
| Distribution Subtotal | \$ | 9,808 | \$ | 10,339 | \$ | 19,132 | \$ | 19,182 |
| System Planning DEPT | \$ | • | \$ | • | \$ | 146 | \$ | 189 |
| Substations DEPT | \$ | 1,750 | \$ | 1,672 | \$ | 3,245 | \$ | 3,094 |
| System Operations DEPT | \$ | 959 | \$ | 961 | \$ | 2,246 | \$ | 2,121 |
| Technical Services DEPT | \$ | 750 | \$ | 705 | \$ | 1,481 | \$ | 1,371 |
| Transmission Other DEPT | \$ | 147 | \$ | 206 | \$ | 231 | \$ | 376 |
| Transmission Engineering DEPT | \$ | 818 | \$ | 794 | \$ | 1,440 | \$ | 1,504 |
| Transmission Projects DEPT | \$ | 168 | \$ | 175 | \$ | 309 | \$ | 330 |
| Transmission Subtotal | \$ | 4,592 | \$ | 4,513 | \$ | 9,098 | \$ | 8,985 |
| Total T&D O&M | \$ | 14,400 | \$ | 14,852 | \$ | 28,230 | \$ | 28,167 |
| Note: As of Q2, System Planning v | vas | incorporated in | nto (| other groups li | stec | i above. | | |

§ 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.)

| (\$ in Thousands) | Q2 | Budget | Q2 | Actual | YTI | D Budget | YI | D Actual |
|--------------------------|----|--------|----|--------|-----|----------|----|----------|
| Distribution Lines | \$ | 10,494 | \$ | 9,360 | \$ | 20,988 | \$ | 19,335 |
| Distribution Substations | \$ | 1,900 | \$ | 2,758 | \$ | 3,800 | \$ | 7,082 |
| EHV Lines | \$ | (0) | \$ | (97) | \$ | (1) | \$ | 1,902 |
| EHV Substations | \$ | (222) | \$ | 169 | \$ | (444) | \$ | (954) |
| General Plant | \$ | 1,790 | \$ | 531 | \$ | 3,579 | \$ | 943 |
| Sub-Transmission | \$ | 8 | \$ | 308 | \$ | 15_ | \$ | 361 |
| Transmission Lines | \$ | 372 | \$ | 573 | \$ | 745 | \$ | 837 |
| Transmission Substations | \$ | 1,044 | \$ | 285 | 45 | 2,088 | \$ | 457 |
| Total | \$ | 15,385 | \$ | 13,886 | \$ | 30,770 | \$ | 29,963 |

§ 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).

| PA | Position Name |
|----------------------------|---------------|
| Lead Lineman | 103 |
| Lineman A | 59 |
| Lineman B | 1 |
| Lineman C | 2 |
| SS Crew Leader Maintenance | , 15 |
| SS Electrician A | 33 |
| SS Electrician Apprentice | 5 |
| SS Electrician B | 4 |
| SS Electrician C | 7 |
| Serviceman A | 87 |
| Serviceman Apprentice | 25 |
| Serviceman B | i |
| Serviceman C | 4 |
| Utilityman A | 7 |
| Utilityman B | 2 |
| | 355 |

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

a. 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.

| Quarter | Contract Dollars - Qtr | Contract Dollars - YTD |
|---------------------|------------------------|------------------------|
| 1 st qtr | \$5,369,584 | \$5,369,584 |
| 2 nd qtr | \$5,750,832 | \$11,120,416 |

§ 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 9.3 minutes in the second quarter. This number represents the elapsed time per callout list divided by the number of people that accepted. (It should be noted that there was a slight error in the calculation of this in our previous report, which made the number slightly lower than actual. This error has been corrected.) 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 2nd quarter, the average response time per crew was 13.1 minutes.

<u>Appendix I – 5% Distribution Circuit Statistics</u>

| SCName | SSName | CktName | CustServed | DCII | SAII | FI S | AIDI | CAIDI | ASAI | CMI | CustIntrup | CircuitLockouts | Incidents | Miles |
|----------------|----------------------|-------------------|-------------|------|-----------------|-------------------|----------|------------------|---------|-----------|------------|-----------------|------------|-------|
| Amold | ALL DAM NO. 5 | SCHENLEY | 180 | | 1, | 7.22] | 940 | 130 | 0.99821 | 169,644 | 1,303 | _ 7 | 14 | s |
| Arnold | FAWN | BULL CREEK | 857 | | 55 | 1.96 | 481 | 245 | 0.99908 | 411,948 | 1,678 | 1 | 35 | 42 |
| Arnold | GOBAIN | PITTSBURGH STREET | 1618 | 7 | 73 ^j | 1.7 | 201 | 118 | 0.99962 | 325,039 | 2,744 | 0 | 37 | 34 |
| Arnold | HARWICK | SPRINGDALE | 1095 | : | 33 []] | 3.12 | 801 | 257 | 0.99848 | 877,281 | 3,412 | 3 | 15 | 11 |
| Arnold | SARDIS | DRENNEN | 191 | 1 | 73 | 1.29 | 232 | 180 ³ | 0.99956 | 44,217 | 245 | 2 | | 15 |
| Arnold | SILVERVILLE | COLE ROAD | 1736 | | | 0.38 | 66 | 175 | 0.99987 | 114,168 | 651 | 0 | 12 60 | 71 |
| Arnold | TUNNELTON | TUNNELTON_DIST | 99 | | 33 | 2.03 | 846 | 417 | 0.99839 | 83,750 | | | 7 | 6 |
| Boyce | CECIL | MURRAY HILL | 1677 | | 31 | 1.81 | 861 | 477 | 0.99836 | 1,444,062 | 3,028 | o | 61 | 24 |
| Butler | BUENA VISTA | HOOKER | 304 | | 44 | 2.76 | 627 | 227 | 0.99881 | 190,485 | 639 | o o | 21 . | 23 |
| Butler | COOPERSTOWN | COOPERSTOWN | 940 | 6 | 69 | 1.47 | 275 | 187 | 0.99948 | 258,510 | 1,381 | 1 | 35 | 46 |
| Butler | HERMAN | HERMAN | 798 | | 26 | 3.88 | 874 | 225 | 0.99834 | 697,629 | 3,097 | 5 | 5 <u>4</u> | 39 |
| Butler | SAXONBURG | CABOT | 88 6 | 7 | 73 | 1.24 | 225 | 182 | 0.99957 | 199,693 | 1,100 | 1 | 29 | 45 |
| Charleroi | BENTLEYVILLE | ELLSWORTH | 2065 | | 7 | 3.16 | 717 | 227 | 0.99864 | 1,479,718 | 6,532 | 3 | 33 | 67 |
| Charleroi | VANCEVILLE | VANCEVILLE | 1304 | | 37 [†] | 2.15 | 775 | 361 | 0.99853 | 1,010,723 | 2,803 | 1 | 61 | 102 |
| Clarion | SHAMBURG | SHAMBURG | . 4 | | S8 [°] | 1.75 | 432 | 247 | 0.99916 | 1,728 | 7 | o | 3 | 1 |
| Hyndman | HYNDMAN | RT 96S | 541 | | 84 | 0.42 | 87 | 207 | 0.99983 | 46,926 | 227 | 0 | 18 | 39 |
| Jeannette | HUNTINGDON | SCOTCH HILL | 699 | | 47 | 1.81 | 605 | 335 | 0.99885 | 423,241 | 1,263 | 2 | 54. | 23 |
| Jeannette | SEVVICKLEY | HERMINIE | 1228 | | -1 . | 4.16 | 1391 | 334 | 0.99735 | 1,708,024 | 5,115 | 3 | 51 | 41 |
| Jefferson | FRANKLIN | ROGERSVILLE | 845 | 3 | 34 | 1.46 ⁱ | 787 | 539 | 0.99850 | 664,547 | 1,232 | 0 | 35 | 115 |
| Jefferson | RUTAN | BRISTORIA | 1140 | -11 | 17 | 6.73 | 3665 | 544 | 0.99303 | 4,176,840 | 7,671 | 3 | 126 i | 189 |
| Jefferson | RUTAN | WINDRIDGE | 1272 | | -9 | 2.88 | 1595 | 553 | 0.99697 | 2,029,964 | 3,669 | 0 | 97 | 199 |
| McConnellsburg | EMMAVILLE | STONEY BREAK | 362 | | 93 | 0.01 | | 153 | 1.00000 | 766 | . 5 | o | 5 | 54 |
| McDonald | HICKORY | HICKORY | 891 | • | 35 | 2.15 | 804 | 374 | 0.99847 | 716,738 | 1,914 | 0 | 51 | 68 |
| St Marys | WEEDVILLE | BYRNEDALE | 408 | | 50 | 2.36 | 536 | 227 | 0.99898 | 218,633 | 962 | 2 | 9 | 21 |
| St Marys | WEEDVILLE | WEEDVILLE | 1338 | • | 20 [†] | 4.01 | 973 | 243 | 0.99815 | 1,302,547 | 5,371 | 4 | 48 | 75 |
| State College | CENTRE HALL | ICENTRE HALL | 934 | | 57 | 2.55 ⁱ | 412 | 161 | 0.99922 | 384,706 | 2,385 | 1 | 37 | 37 |
| State College | CENTRE HALL | POTTERS MILLS | 854 | | 76 | 0.52 | 157 | 305 | 0.99970 | 134,161 | 440 | 0 | 45 | 79 |
| State College | FILLMORE | COURTS | 602 | | | 0.15 | 15 | 104 | 0.99997 | 9,275 | 89 | 0 | 9, | 20 |
| State College | FOWLER | BALD EAGLE | 381 | -: | 34 | 4.73 | 2035 | 430 ⁱ | 0.99613 | 775,573 | 1,803 | 2 | 31 | 41 |
| State College | MT. RIANSARES TOWER | MT. RIANSARES | 13 | | 2 | 2 | 1340 | 670 | 0.99745 | 17,425 | . 26 | 0 | 2 | 4 |
| State College | PORT MATILDA | PORT MATILDA | 1356 | | 58 [°] | 2.03 | 264 | 130 | 0.99950 | 358,472 | 2,749 | 1 | 74. | 98 |
| State College | PORT MATILDA | STORMSTOWN | 861 | | BO . | 1.48 | 119 | 80 | 0.99977 | 102,119 | 1,275 | 1 | 23 | 59 |
| State College | STUCK | STUCK EXT | 29 | Ē | 88 | 2.17 | 242 | 111 | 0.99954 | 7,014 | 63 | 0 | 5 | 9 |
| State College | THOMPSON FARM | TOFTREES | 928 | _ | 1, | 5.23; | 1227 | 235 | 0.99767 | 1,137,764 | 4,849 | 4 | 37 | 16 |
| State College | WATERVILLE | WATERVILLE | 337 | 1 | ., | 4.15 | 976 | 235 | 0.99814 | | 1,400 | 0 | 20 | 20 |
| Uniontown | SUMMIT | CHALK HILL | 567 | 1 | 10, | 4.29 | 1149 | 268 | 0.99781 | 651 583 | 2,431 | 4 | 13 | 27 |
| Washington | AMITY | AMITY | 504 | | 43 | 1.43 | - 653 | 457 | 0.99876 | 329 371 | 721 | 1 | 16 | 57 |
| Washington | GALLEY | WATERDAM | 1261 | | | 2.61 | 1641 | 629 | 0.99688 | 2,069,007 | 3,289 | 1 | 80 | 20 |
| Washington | HOUSTON | CHARTIERS | 2541 | | • | 5.26 | 984 | 187 | 0.99813 | 2,499,727 | 13,378 | 4 | 77 | 45 |
| Washington | : LONG FARM SHAFT | LONG FARM SHAFT | 116 | | • | 0.04 | 11 | 259 | 0.99998 | 1,293 | 5 | 0 | | 9 |

Appendix II - 5% Distribution Circuit Remedial Actions

| SCName | SSName | CktName | Actions Taken or Planned | Status |
|----------------------|---------------------|-------------------|---|--|
| Arnold | ALL DAM NO. 5 | SCHENLEY | Tree trimming performed in 2005. | Monitor results. |
| Arnold | FAWN | BULL CREEK | Tree trimming performed in 2005 | Monitor results. |
| Amáld | ĞOBAIN | PITTSBURGH STREET | Analyze circuit under Circuit Improvement Initiative. | Plan review. |
| Arnotd | HARWICK | SPRINGDALE | Fifteen sectionalizing devices added as part of 2004 RIPInit. | Monitor results. |
| Arnoid | SARDIS | DRENNEN | Tree trimming performed in 2005. One sectionalizing device added as part of 2005 RIPInit. Substation automation planned for early 2006; many circuit lockouts will be eliminated. | Automation complete. Monitor results. |
| Arnold | SILVERVILLE | COLE ROAD | Tree trimming performed in 2005 | Monitar results. |
| Arnold | TUNNELTON | TUNNELTON_DIST | Installed additional switching to reduce outage durations by picking up customers from an adjacent circuit. | Monitor results. |
| Boyce | CECIL | MURRAY HILL | Tree trimming planned for 2006. | Plan work. |
| Buller | BUENA VISTA | HOOKER | Tree trimming planned for 2006. Substation automation completed in 2005; many circuit lockouts will be eliminated. | Automation complete, Monitor results. |
| Butler | COOPERSTOWN | COOPERSTOWN | Tree trimming planned for 2006. | Plan work. |
| Butler | HERMAN | HERMAN | Reviewed fuse coordination (RIPInit) in 2004, Load balancing completed in 2005. | Manitor results. |
| Butle: | SAXONBURG | CABOT | Six sectionalizing devices to be added as part of 2006 RIPInit. | Engineering complete. |
| Charleroi | BENTLEYVILLE | ELLSWORTH | Tree trimming planned for 2006. | Plan work. |
| Charleroi | VANCEVILLE | VANCEVILLE | Tree trimming planned for 2006. | Plan work. |
| Clarion | SHAMBURG | SHAMBURG | 2 outages in the year affected the one industrial customer on this circuit. | Monitor reliability. |
| | HYNDMAN | RT 96S | Tree trimming performed in 2005. | Monitor results. |
| Hyndman Jeannette | HUNTINGDON | SCOTCH HILL | Seven sectionalizing devices added as part of 2004 RIPInit. Tree trimming planned for 2006. | Plan work. |
| Jeannette | SEWICKLEY | HERMINIE | Tree trimming planned for 2006. | Plan work. |
| Jefferson | FRANKLIN | ROGERSVILLE | Fourteen sectionalizing devices added as part of 2004 RIPInit. Tree trimming performed in 2005 | Monitor results. |
| Jefferson | RUTAN | BRISTORIA | Nineteen sectionalizing devices added as part of 2004 RIPInit. | Monitor results, |
| Jefferson | RUTAN | WINDRIDGE | Tree trimming performed in 2005. | Monitor results. |
| McConnellsburg | EMMAVILLE | STONEY BREAK | Tree trimming performed in 2005. | Monitor results. |
| McDonald | HICKORY | HICKORY | Fifteen sectionalizing devices added as part of 2004 RIPInit. | Monitor results. |
| St Marys | WEEDVILLE | BYRNEDALE | 'Analyze circuit under Circuit Improvement Initiative. | Review complete. Recommend fault indicators and arrestors. Also helps Weedville. |
| St Marys | WEEDVILLE | WEEDVILLE | Tree trimming performed in 2005/2006. Thirty-four sectionalizing devices added as part of 2004 RIPInit. | Manitor results. |
| State College | CENTRE HALL | CENTRE HALL | Six sectionalizing devices added as part of 2004 RIPInit. | Manitor results. |
| State College | CENTRE HALL | POTTERS MILLS | 86% of the outages occurred on 3 days in January during ice storm. | Monitor reliability. |
| State College | FILLMORE | COURTS | Tree trimming planned for 2006. | • |
| State College | FOWLER | BALD EAGLE | Tree framming performed in 2005. Twenty-nine sectionalizing devices added as part of 2004 RIPloit. | Monitor results. |
| State College | MT. RIANSARES TOWER | MT. RIANSARES | Tree trimming performed in 2005. | Monitor results. |
| State College | PORT MATILDA | PORT MATILDA | Tree trimming performed in 2005. Twenty-two sectionalizing devices added as part of 2004 RIPInit. | Monitor results. |
| State College | PORT MATILDA | STORMSTOWN | 96% of the outages occurred on 3 days in January during ice storm. | Monitor reliability. |
| State College | STUCK | STUCK EXT | Four sectionalizing devices added as part of 2004 RIPInit. | Monitor results. |
| State College | THOMPSON FARM | TOFTREES | Tree trimming planned for 2006. | Pian work |
| State College | WATERVILLE | WATERVILLE | Entire circuit reviewed for additional fusing opportuntites with three additional locations identified in 2005. One-third of the outages were caused by ties with another utility. | |
| Uniontown | SUMMIT | CHALK HILL | Tree trimming planned for 2006. | Plan work. |
| Washington | AMITY | AMITY | Ten sectionalizing devices added as part of 2004 RIPInit. Circuit review planned for 2006. | Plan review. |
| Washington | GALLEY | WATERDAM | Tree trimming planned for 2006, Substation automation planned for early 2006; many circuit lockouts will be eliminated. | |
| Washington | HOUSTON | CHARTIERS | Tree trimming planned for 2006. Circuit reviewed in early 2006 for possable splitting to reduce outages and outage time. | |
| Washington | LONG FARM SHAFT | LONG FARM SHAFT | Tree trimming planned for 2006. | Plan work. |

<u>Appendix III – Goals Progress</u>

| 2006 Goals - Pennsylvania - C | omplete Planned Ensure Re | liable Service (E | RS) Work | |
|--|------------------------------|-------------------|---------------------|-------------|
| | Second Quarter Results | | - | |
| ERS Program/Project | Unit of Measurement | Target for 2006 | Actual Completed | % Completed |
| Transmission Herbicide Application | #Transmission Lines | 12 | 3 | |
| Transmission Lines Trimming and Clearing | #Transmission Lines | 45 | 6 | 13% |
| Subtransmission Herbicide Application | # of Subtransmission Lines | 54 | 10 | |
| Subtransmission Line Trimming and Clearing | # of Subtransmission Lines | 30 | 2 | 7% |
| Distribution Line Trimming, Clearing & Herbicide Applic. | # of Distribution Line Miles | 6,438 | 2,568 | 40% |
| Major ERS SS Projects | # Projects | 12 | 4.8 | |
| Major ERS Lines Projects | # Projects | 3 | 0.8 | |
| Transmission Comprehensive Patrol | #Transmission Lines | 13 | 11 | 85% |
| Transmission General Patrol | # Transmission Lines | 120 | D | 0% |
| Ground & Footer Inspections | #Transmission Lines | 8 | Ó | 0% |
| Pole Inspection | #Transmission Lines | 11 | 9 | 82% |
| Pole Replacements | #Transmission Poles | G | 0 | 0% |
| Non-Critical Transmission Repairs | # Non-Critical Items | 49 | 33 | 67% |
| Subtransmission General Patrol | # Subtransmission Lines | 325 | 0 | 0% |
| SS Work (Includes Capital, Planned, & Preventative) | Man-Hours | 71,740 | 34,858 | 49% |
| SS Spraying | Man-Hours | 134 | 1 | 1% |
| Controls Work (Includes Cap., Planned, & Preventative) | Man-Hours | 3,163 | 1,534 | 48% |
| Individual ERS Budget Projects | Man-Hours | 13,448 | 8,336 | 62% |
| Small Planning Projects | Man-Hours | 23,398 | 9,578 | |
| Pole Inspection | # of Circuits | 118 | 80 | 68% |
| Pole Reinforcement | #Poles | 209 | 0 | 0% |
| Danger Poles | #Danger Poles | 174 | 104 | 60% |
| Reject Poles | #Reject Poles | 175 | 150 | 86% |
| AIM Work | Points Completed | 1,768 | 1,419 | 80% |
| RIP Program | Manhours | 15,320 | 9,154 | 60% |
| UG Equipment Inspections | #Locations | 6,577 | 3,281 | 50% |
| Recloser Inspections | #Reclosers | 3,061 | 2,068 | 68% |
| Regulator Inspections | #Regulators | 353 | 218 | 62% |
| Capacitors Inspections | # Capacitors | 1,014 | 770 | 76% |
| Recloser Replacements | #Reclosers | 222 | 133 | 60% |
| UGD Cable Replacement | #Feet | 16,000 | 5,973 | 37% |
| Cable Injection | #Feet | 50,000 | 19,510 | 39% |

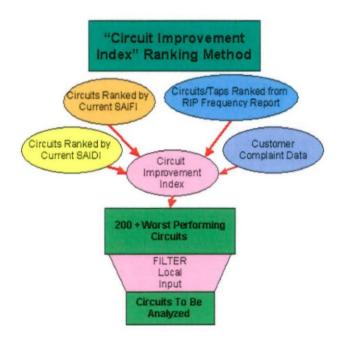
Appendix IV - Callout Acceptance

| Linemen | | | | | | | | | | | | | | | |
|--------------------|--------------|----------------|---------|--------------|------------------|---------|--------------|-------------------|---------|--------------|---------------|----------|--------------|------------|------------|
| | | Jan,Feb,Ma | r T | <i>,</i> | NorMay,Ju No. | n 1 | <u> </u> | Jul Aug Ses | | (| Oct, Nov, Dei | ¢ . | | YTD No. | |
| Service Center | No. of Calls | Accepted | Average | No. of Calis | Accepted | Average | No. of Calis | Accepted | Average | No. of Calls | Accepted | Average | No. of Calls | Accepted | Average |
| | | | | | | | - | | | | | | | =: | |
| Arnold | 566 | 120 | 21% | 862 | 209 | 24% | 0.0 | Ċ | | 0 . | 0 | | 1427 | 329 | 23% |
| Boyce | 243 | 84 | 35% | 411 | 158 | 38% | | ũ | | 0] | ٥ | | 654 | 242 | 37% |
| Butler | <u>6</u> 04 | 226 | 37% | 625 | 227 | 36% | Đ | 0 | | 0 . | 0 | | 1229 | 453 | 37% |
| Charlero | 429 | 149 | 35% | 328 | 155 | 47% | 0 | ۵ | | 0 | ٥ | | 757 | 304 | 40% |
| Clarion | 113 | 43 | 38% | 182 | 63 | 35% | ۵ | ٥ | | 0 | 0 | | 295 | 106 | 36% |
| Jeannette | 1279 | 136 | 11% | 843 | 177 | 21% | 0 | ٥ | | 0 | 0 | | 2122 | 313 | 15% |
| Jefferson | 533 | 124 | 23% | 442 | 112 | 25% | 0 | . 0 | | 0 | 0 | | 975 | 236 | 24% |
| Kittunning | 201 | 94 | 47% | 171 | 61 | 36% | 0 | Ü | | 0 | 0 | | 372 | 155 | 42% |
| Latrobe | | 124 | 27% | 710 | 211 | 30% | D | 0 | | 0 | 0 | | 1164 | 335 | 29% |
| McConnellsburg | 169 | 98 | 58% | 204 | 123 | 60% | 0 | . 0 | | 0 | 0 | | 373 | 221 | 59% |
| McDunald | 189 | 40 | 21% | 229 | 80 | 35% | 0 | 0 | | 0 | D | | 418 | 120 | 29% |
| Pleasant Valley | 336 | 121 | 36% | 281 | 118 | 42% | 0 | . 0 | | 0 | 0 | | 617 | 239 | 39% |
| St.Mary's | 180 | 93 | 52% | 248 | 130 | 52% | | . 0 | | ם | D, | } | 428 | 223 | 52% |
| State College | 580 | 149 | 26% | 596 | 187 | 31% | ٥ | 0 | | ם ו | 0 | | 1176 | 336 294 | 29% 29% |
| Uniontown | 659 | 129 | 20% | _362 | 165 | 46% | Ġ | - | | | | l | 1021 1190 | 225 | 19% |
| Washington | | 116 | 18% | 529 | 109 | 21% | . Q | 0 | | l | o O | l | 1632 | 249 390 | 24% |
| Waynesbore | _ 603 | 152 | 19% | 829 | 238 | 29% | U | Ü | | | U | | 1932 | J9U | 2470 |
| Total AP: Average: | 7998 | 1998 | 25% | 7852 | 2523 | 32% | 0 | O | | 0 | 0 | | 15850 | 4521 | 29% |
| <u> </u> | | | | | | | | | | | _ | | | | |
| Electricians | • | | | | | | - | | | | | - | • | | |
| | | Jan,Feb,Ma | if | <i>f</i> | Apr,May Ju | ŗ | | Jul,Aug,Sep No | 3 | | Oct,Nov,Dei | ¢ | ļ | YTD No. | |
| Service Center | No. of Calls | No Accepted | Average | No of Cass | No. Accepted | Average | No of Calls | Accepted | Average | No. of Calls | Accepted | Average | No. of Cells | Accepted | Averag |
| | | | _ · - | | | | | | | | | | | | , |
| Amold | 37 | 24 | 65% | 71 | 40 | 56% | Û | 0 | | Ō | 0 | | 108 | 64 | 59% |
| Boyco | 15 | 11 | 73% | 18 | 15 | 83% | 0 | 0 | | [0 | 0 | 1 | 33 | 28 | 79% |
| Butter | 40 | 21 | 53% | 43 | 20 | 47% | 0 | 0 | | 0 | 0) | | 63 | 41 | 49% |
| Charlero | 32 | 13 | 41% | 58 | 26 | 45% | a | 0 | | 0 | 0 | | 90 | 39 | 43% |
| Jeannette | <u>2</u> 8 | 6 | 21% | 72 | 12 | 17% | 0 | 0 | | 0 | 0 | | 100 | 18 | 18% |
| Jefferdun | 42 | 16 | 38% | 44 | 17 | 39% | 0 | 0 | | 0 | 0 | | 86 | 33 | 38% |
| Kittanning | | 14 | 61% | 28 | 13 | 48% | a | Ð | | 0 | 0 | | 51 | 27 | 53% |
| Latrobe | | 12 | 32% | 67 | 13 | 19% | 9 | 0 | | 0 | 0 | | 105 | 25 | 24% |
| Pleasant Valley | 59 | 20 | 34% | 59 | 16 | 27% | 0 | 0 | | 0 | 13 | | 118 | 36 | 31% |
| St.Mary's | 19 | 10 | 53% | 29 | 12 | 41% | 0 | 0 | | 0 | D | 1 | 48 | 22 | 45% |
| State College | 30 | 9 | 30% | 22 | 11 | 50% | 0 | 0 | | 0 | D | | 52 | 20 | 38% |
| Washington | 24 | 5 . | 21% | 30 | 11 | 37% | 0 | 0 | | 0 . | 0 | | 54 | 16 | 30% |
| Waynesboro | 63 | 19 | 30% | 90 | 21 | 23% | 0 | o i | | a . | Ü | ŀ | 153 | 40 | 26% |
| | 450 | 180 | 40% | 631 | 227 | 36% | ۵ | 0 | | 0 | 0 | | 1091 | 407 | 38% |

Appendix V - Circuit Improvement Index

Circuit Improvement Index replaces Distribution Circuit Improvement Index (DCII) as the primary means of selecting poor performing circuits for annual evaluation. DCII is a satisfactory ranking if statistics alone (SAIFI, CAIDI, SAIDI, and ASAI) are used to evaluate circuit performance based on a five-year system average performance. But circuit improvement involves much more than just a high-level statistical ranking. Circuits need to be evaluated for a number of factors including frequency of lockouts, frequency of major tap interruptions representing individual customer outage frequency, customer complaint data (if applicable), plus traditional reliability indexes such as SAIFI and SAIDI. A 'master' circuit improvement list will be generated annually and reviewed at the local levels for field input. Field offices, being closer to the customer, have information needed to complete the selection process based on known circuit problems. The master list will then be narrowed to the 100 or so circuits to be studied for the next year. No less than the required applicable state commission requirement will be addressed. Under the new circuit selection method, about the same number of circuits will be evaluated since 5% of AP's 1850 circuits equals 93 circuits. Once circuits are selected for the next year, individual analysis will take place as part of AP's ongoing structured Reliability Improvement Program (RIP). Outage causes will be evaluated, circuit outage maps will be created to assist in the evaluation if needed, and budgets and work plans will be established to improve reliability for viable projects.

A schematic diagram of the process follows:



Appendix VI - Major Event Descriptions

Commission reports for the following major events are presented on the pages following this appendix:

i. There were no Major Events in the second quarter.

Procurement and Materials Management Process For Allegheny Energy's Monongahela Power Company Fort Martin Electric Generating Station Flue Gas Desulphurization Scrubber Project

The following is an overview of the process for the acquisition of equipment and materials for the construction of the Flue Gas Desulphurization (FGD) units at Allegheny Energy's Monongahela Power Company Fort Martin Electric Generating Station located in Monongalia County, West Virginia.

The following definitions are provided for clarity:

- "Engineering Design Team"- A team of Allegheny Energy, contractor and consultant engineers, reporting to the Allegheny Energy Project Director, responsible for the design of the FGD units and the specification of all equipment and materials.
- "Procurement Team" A team of Allegheny Energy procurement specialists and contractor staff, reporting to the Allegheny Energy Procurement Team Leader and Project Director, responsible for the procurement of equipment and material for the project.
- "Material Management Team" A team of Allegheny Energy and contractor material management and expediting personnel, reporting to the Allegheny Energy Materials Management Team Leader and Project Director, responsible for the scheduling, tracking, and delivery of all equipment and material for the project, from fabrication through to onsite storage.
- "Construction Management Team"- A team of Allegheny Energy and contractor construction management personnel, reporting to the Allegheny Energy Project Director, responsible for the installation of all material and equipment.

The following is the process to be utilized for the procurement and management of all materials and equipment required to construct the FGD units:

- 1. Specifications for all material and equipment required for construction will be provided by the **Engineering Design Team**.
- 2. The **Procurement Team** will select suppliers who are qualified to provide materials and equipment per the specifications utilizing Allegheny Energy's procurement policies, procedures and business practices.
- 3. Upon selection of a vendor, the **Procurement Team** will issue an Allegheny Energy Purchase Order with terms, conditions and payment terms specific to this project.

- 4. Material and equipment expediting will be provided by representatives of the **Procurement, Materials Management** and **Engineering Design** Teams as necessary.
- 5. Material and equipment will be received at the site, stored, and controlled by the Materials Management Team and issued to the Construction Management Team for installation.
- 6. The Construction Management Team will be responsible for the security of all construction equipment and materials. Any surplus materials will be returned to the Materials Management Team for storage and retention or disposal.

Re: Allegheny Power Second Quarter 2006 Reliability Report

CERTIFICATE OF SERVICE

I certify that this 1st day of August 2006, I have served a true and correct copy of the Quarterly Reliability Report of Allegheny Power, by first-class mail, postage prepaid, upon the following:

VIA FIRST-CLASS MAIL

Office of Consumer Advocate 555 Walnut Street Forum Place, 5th Floor Harrisburg, PA 17101-1921

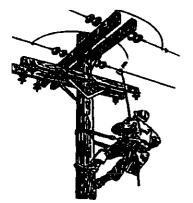
Office of Small Business Advocate Suite 1102, 300 North 2nd Street Harrisburg, PA 17101

John L. Munsch

Attorney for ALLEGHENY POWER

Act of Tribb

DASH JOH JULICON JOHN



CITIZENS' ELECTRIC COMPANY

1775 INDUSTRIAL BLVD • P.O. BOX 551 • LEWISBURG, PA 17837-0551 • (570) 524-2231 • FAX: (570) 524-5887

October 23, 2006

Mr. James J. McNulty, Secretary Pennsylvania Public Utility Commission PO Box 3265 Harrisburg, PA 17105-3265

Dear Mr. McNulty,

L-000 30161

Enclosed please find an original and six copies of the Third Quarter, 2006 Reliability Report for Citizens' Electric Company.

Please contact me at 570-522-6143 or <u>kelchnerj@citizenselectric.com</u> if I can answer any questions.

Sincerely,

John A. Kelchner, PE

Vice President, Engineering & Operations

OCCUPATION OF THE PROPERTY OF

cc: Pennsylvania Office of Consumer Advocate Pennsylvania Office of Small Business Advocate

RECEIVED

OCT 2 3 2006

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Citizens' Electric Company

Quarterly Service Reliability Report

Third Quarter, 2006

Prepared by John A. Kelchner, PE

Vice President of Engineering & Operations

570-522-6143

kelchnerj@citizenselectric.com

October 23, 2006

§ 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.

We experienced no Major Events during the preceding quarter.



PA PUBLIC UTILITY COMMISSION SEGRETARY'S BUREAU § 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.

| Index | Rolling 12-Month Value for Quarter | Benchmark | Standard |
|-------|---------------------------------------|-----------|----------|
| SAIFI | 0.12 | 0.21 | 0.27 |
| SAIDI | 10 | 21 | 38 |
| CAIDI | 86 | 105 | 141 |

| Total # of Customers Served | # of Interruptions | # of Customers Affected | Customer Minutes |
|-----------------------------|--------------------|----------------------------|------------------|
| 6,683 | 52 | 807 | 69,124 |

The following outages were approved for exclusion as Major Events during the preceding 12-month period and are not included in the above calculations:

| Date | # of Customers Affected | Customer Minutes |
|------------|----------------------------|------------------|
| 11/6/2005 | 1,252 | 20,032 |
| 11/10/2005 | 1,252 | 62,600 |
| 1/26/2006 | 1,252 | 38,812 |
| 2/17/2006 | 988 | 30,889 |

§ 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.

| Outage Cause | Number of Interruptions | % of Interruptions | Number of Customers Affected | Customer Interruption Minutes |
|---------------|-------------------------|-----------------------|------------------------------------|-------------------------------------|
| On R/W Trees | 0 | 0 | 0 | 0 |
| Animals | 25 | 48 | 280 | 14,745 |
| Equipment | 13 | 25 | 324 | 41,857 |
| Off R/W Trees | 2 | 4 | 28 | 1,212 |
| Weather | 8 | 15 | 98 | 6,273 |
| Vehicle | 0 | 0 | 0 | 0 |
| Other | 4 | 8 | 77 | 5,037 |
| Total | 52 | | 807 | 69,124 |

Discussion

A series of moderate thunderstorms during July helped to increase the number of weather-related outages during the preceding period. All outages this quarter affected relatively small numbers of customers and were of short duration. We are continuing our efforts to reduce animal outages through the aggressive installation of protectors and insulated leads on transformer bushings and the use of insulated equipment mounting brackets on poles.

Orange and Rockland Utilities, Inc. 390 West Route 59 Spring Valley NY 10977-5300 www.oru.com

October 25, 2006

FOLDER

Pennsylvania Public Utility Commission P.O. Box 3265 Harrisburg, PA 17105-3265

Attention: Secretary James J. McNulty

Re: Third Quarter 2006 Quarterly Report for Pike County Light and Power

PUC Docket No. L-00030161; Rulemaking Re Amending Electric Service Reliability Regulations At 52 Pa. Code Chapter 57

Dear Secretary McNulty:

Pike County Light & Power Company ("Pike") hereby submits six copies of its Third Quarter 2006 quarterly report as set forth in the Pennsylvania Public Utility Commission's ("Commission, PUC)") Docket No. L-00030161 adopted Rulemaking Re Amending Electric Service Reliability Regulations At 52 Pa. Code Chapter 57 ("Order"). As such, Pike's quarterly reporting requirements, as set forth in Section 57.195(e) (1) (2) and (5) of the Order, are enclosed. At a Public hearing on August 17th, the Commission ordered that the Pike Reliability Standards be modified in order to reflect major events that were improperly excluded from the years on which the standards were based. O&R received formal notice of this Order on October 11th. This Filing reflects the revised Standards.

Please contact me if you have any questions regarding this report or require any additional information.

Very truly yours,

Terrotty Lan
Timothy T. Garvin

Manager - Performance & Operational Engineering

Pike County Light and Power

(Orange and Rockland Utilities, Inc.)

Enclosures

cc: Office of Consumer Advocate

Office of Small Business Advocate

Pike County Light and Power Company (Orange and Rockland Utilities, Inc.)

Quarterly Reliability Report

Third Quarter 2006

§ 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.

3rd Quarter 2006 **Major Events**

| | | | | | Customers | Cust Min of |
|------|------|---------|-------|----------|-----------|--------------|
| Date | Time | Circuit | Cause | Duration | Affected | Interruption |

3rd Quarter 2006 **Pre-Arranged Outages**

| Date | Time | Circuit | Cause | Duration | Customers Affected | Cust Min of Interruption |
|------------|----------|-----------|--------------|------------|-----------------------|-----------------------------|
| 2006/08/16 | 11:59:00 | L07-06-34 | Pre-Arranged | 99 minutes | 18 | 1,782 |
| 2006/08/17 | 13:10:00 | L07-06-34 | Pre-Arranged | 90 minutes | 2 | 180 |

§ 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 interrruption. If MAIFI values are provided, the report shall also include the number of customer momentary interruptions.

Interruption Data Rolling 12-Month Data

| Year —— | Quarter | Customers Served Rolling 12 Mth | Number of Interruptions Rolling 12 Mth | Customers Affected Rolling 12 Mth | Customer Min of Interruptions Rolling 12 Mth |
|------------|---------|--|---|--|---|
| 2005 | 4th Qtr | 4,386 | 90 | 8,123 | 885,329 |
| 2006 | 1st Qtr | 4,404 | 92 | 8,276 | 905,440 |
| 2006 | 2nd Qtr | 4,424 | 74 | 6,173 | 801,156 |
| 2006 | 3rd Qtr | 4,444 | 67 | 5,565 | 551,810 |

Performance Ratios Rolling 12-Month Data

| | Frequency SAIFI | Restoration CAIDI (Min) | Duration SAIDI (Min) |
|-------------------------|--------------------|-------------------------------|----------------------------|
| Benchmark | .97 | 159 | 154 |
| Rolling 12 Mth Standard | 1.31 | 215 | 282 |

| Year | Qtr | Frequency SAIFI Rolling 12 Mth | Restoration CAIDI Rolling 12 Mth | Duration SAIDI Rolling 12 Mth |
|------|---------|---|---|--|
| 2005 | 4th Qtr | 1.85 | 109 | 202 |
| 2006 | 1st Qtr | 1.88 | 109 | 206 |
| 2006 | 2nd Qtr | 1.40 | 130 | 181 |
| 2006 | 3rd Qtr | 1.25 | 99 | 124 |

§ 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.

Third Quarter 2006 Cause Analysis Rolling 12 Months Data *Excludes Storms, Major Events, Pre-Arrranged

| Cause | Number of Interr. Rolling 12 Mth. | Number of Interr. Rolling 12 Mth. (%) | Customers Affected Rolling 12 Mth. | Customers Affected Rolling 12 Mth. (%) | Customer Min. Interr. Rolling 12 Mth. | Customer Min. Interr. Rolling 12 Mth. (%) |
|----------------|--|---|---|--|--|---|
| | | | | | | |
| Animal Contact | 4 | 6.0% | 402 | 7.2% | 50,294 | 9.1% |
| Tree Contact | 40 | 59.7% | 2,054 | 36.9% | 373,196 | 67.6% |
| Overload | 0 | .0% | . 0 | .0% | . 0 | .0% |
| Work Error | 1 | 1.5% | 1.766 | 31.7% | 10.596 | 1.9% |
| Equip. Failure | 8 | 11.9% | 312 | 5.6% | 37,729 | 6.8% |
| Non-Comp Acc. | 7 | 10.4% | 624 | 11.2% | 37,393 | 6.8% |
| Custmr Problem | 0 | .0% | 0 | .0% | 0 | .0% |
| Lightning | 4 | 6.0% | 218 | 3.9% | 25.564 | 4.6% |
| Unknown-Other | 3 | 4.5% | 189 | 3.4% | 17.038 | 3.1% |
| All Causes | 67 | 100.0% | 5,565 | 100.0% | 551,810 | 100.0% |

WELLSBORO ELECTRIC COMPANY

QUARTERLY RELIABILITY REPORT 57.195 REPORTING REQUIREMENTS

DOCUME/NOT

Third Quarter 2006

July-September 2006

L-0030161

SUBMITTED BY

ROBERT S. McCARTHY
VICE-PRESIDENT, ENGINEERING AND OPERATIONS
570-724-3516
bobbym@ctenterprises.org

ORIGINAL

RECEIVED

OCT 3 7 2000

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU



57.195 Reporting Requirements

Section (e) Item (2)

Rolling 12-Month reliability index Values (SAIFI,CAIDI,SAIDI) 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 interrruption.

WELLSBORO ELECTRIC COMPANY

ROLLING TWELVE MONTH INTERRUPTION INDEXS

Third Quarter of 2006

SAIDI 94.09 SAIFI 1.3 CAIDI 72.1

ROLLING TWELVE MONTH STANDARD AS ESTABLISHED BY THE PUC

SAIDI 278 SAIFI 1.66 CAIDI 167

RECEIVED

OCT 2 7 2006

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU 57.195 Reporting Requirements

Section (e) Item (2)

| Wellsboro Elec | Wellsboro Electric Company | | | SAIDI |
|----------------|----------------------------|---------------------|-----------|-----------|
| MONTH | TOTAL CUST MI | NUTES | # CUSTOME | RS SERVED |
| | | | | |
| October-05 | 21910.8 | | 5886 | |
| November-05 | 18953.4 | | 5889 | |
| December-05 | 3029.4 | | 5903 | |
| Jan-06 | 46000.2 | | 5905 | |
| Feb-06 | 23728.8 | | 5895 | |
| Mar-06 | 26127.6 | | 5906 | |
| April-06 | 50821.8 | | 5912 | |
| May-06 | 154202.4 | | 5911 | |
| June-06 | 37702.8 | | 5915 | |
| July-06 | 68925 | | 5921 | |
| August-06 | 52734.6 | | 5930 | |
| Sept-06 | 51735.6 | | 5924 | |
| · | 555872.4 | | 70897 | |
| | | Average # Customers | Served | 5908 |

Rolling 12 Month Average SAIDI Index

94.09

| WELLSBORO FLECTRIC COMPANY | WELL | LSBORO | FLECTRIC | COMPANY |
|----------------------------|------|--------|----------|---------|
|----------------------------|------|--------|----------|---------|

Reliability Index

SAIFI

| Month | # of Customers Interrupted | # of Cust Served |
|-------------|-------------------------------|-------------------------|
| Oct-05 | 191 | 5886 |
| Nov-05 | 204 | 5889 |
| Dec-05 | 60 | 5903 |
| Jan-06 | 528 | 5905 |
| Feb-06 | 361 | 5895 |
| Mar-06 | 396 | 5906 |
| April-06 | 2108 | 5912 |
| May-06 | 886 | 5911 |
| June-06 | 787 | 5915 |
| July-06 | 753 | 5921 |
| August-06 | 1022 | 5930 |
| Sept-06 | 406 | 5924 |
| | | 70897 |
| | 7702 | 5908 Avg # of Customers |
| SAIFI INDEX | 1.30 | |

| Wellsboro Electric Con | npany | Reliability Index CAIDI |
|------------------------|---------------------|----------------------------|
| Month | Total Customer Mins | # of Customers Interrupted |
| | | |
| Oct-05 | 21910.8 | 191 |
| Nov-05 | 18953.4 | 204 |
| Dec-05 | 3029.4 | 60 |
| Jan-06 | 46000.2 | 528 |
| Feb-06 | 23728.8 | 361 |
| March-06 | 26127.6 | 396 |
| April-06 | 50821.8 | 2108 |
| May-06 | 154202.4 | 886 |
| June-06 | 37702.8 | 787 |
| July-06 | 68925 | 753 |
| August-06 | 52734.6 | 1022 |
| Sept-06 | 51735.6 | 406 |
| | 555872.4 | 7702 |
| CAIDI INDEX | 72.17 | |

A decription of each major event that occurred during the preceding quarter including the time and duration of the event, the numer 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.

| Date | Time of Event | Duration of Event | # Cust Affected Affected | # Customer Hours | Cause |
|----------|------------------|----------------------|-----------------------------|---------------------|---------------------|
| 8/4/2006 | 3:00 P.M. | 26 hrs 35 min | 1473 | 10889.2 | Severe Thunderstorm |

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 indentified service problems shall be reported.

Outages from October 2005 Thru September 2006

| Outage | Number of | Number | Customer | Percentage |
|---------------------|-----------|---------|----------|------------|
| Cause | Customers | of | Minutes | of Outages |
| | Affected | Outages | | |
| Animals | 1213 | 75 | 64960.8 | 27.9% |
| Vehicles | 465 | 7 | 69694.8 | 2.6% |
| Decay | 4 | 4 | 187.2 | 1.5% |
| Electrical Overload | 200 | 4 | 3213.6 | 1.5% |
| Equipment | 953 | 48 | 71532.6 | 17.8% |
| Ice,Sleet,Frost | 0 | 0 | 0 | 0.0% |
| Lightning | 357 | 25 | 71629.2 | 9.3% |
| Other, Utilities | 0 | 0 | 0 | 0.0% |
| Rain | 13 | 1 | 883.8 | 0.4% |
| Trees | 3329 | 43 | 196612.8 | 16.0% |
| Unknown | 669 | 44 | 39336 | 16.4% |
| Wind | 405 | 17 | 34719.6 | 6.3% |
| Public Contact | 94 | 1 | 3102 | 0.4% |
| | 7702 | 269 | 555872.4 | 100.0% |



Rates & Regulatory Affairs Unit 411 Seventh Avenue 8-6 Pittsburgh, Pennsylvania 15219



October 30, 2006

VIA OVERNIGHT MAIL DELIVERY:

James J. McNulty, Secretary Pennsylvania Public Utility Commission P. O. Box 3265 Harrisburg, Pennsylvania 17105-3265

Dear Mr. McNulty:

RECEIVED

PA PUBLIC UTILITY COMMISSION

FOR PUBLIC UTILITY

FOR PUB

In accordance with the Commission's Order at L-00030161 entered March 20, 2006, on Duquesne's Petition for Protective Order Pertaining to Information contained in its Quarterly and Annual Reliability Reports, Duquesne is submitting an original and six (6) copies of its report for the quarter ended September 30, 2006, in two versions, both included under this transmittal letter. The first version contains only that information for which the Commission did not grant protective treatment. The second version includes all of the information required by 52 Pa. Code §57.195, is marked "confidential and proprietary" and is enclosed in a sealed envelope.

Duquesne respectfully requests that the version marked "confidential and proprietary" not be made available to the public.

Please return a date-stamped copy of this letter in the enclosed, self-addressed stamped envelope.

If you have any questions regarding the information provided, please contact me at 412.393.6334 or nkrajovic@duglight.com.

Sincerely.

Nancy J. D. Krajovic

Manager

Regulatory Affairs

Enclosures

c: Mr. W. Williams - Bureau of CEEP

Mr. I. A. Popowsky – Office of Consumer Advocate

Mr. W. R. Lloyd - Office of Small Business Advocate

Mr. D. Gill - Bureau of CEEP

Mr. B. J. Loper - Bureau of CEEP

w/ enclosure

**

"

..

"

103

DUQUESNE LIGHT COMPANY QUARTERLY RELIABILITY REPORT October 30, 2006

57.195 Reporting Requirements

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

Wayne H. Honath - Manager, Reliability & Standards (412) 393-8332, whonath@duqlight.com

Nancy J. Krajovic - Manager, Regulatory Affairs (412) 393-6334, nkrajovic@duglight.com

RECEIVED

OCT 3 0 2006

PAPUBLIC UTILITY COMMISSION
BECHETARY'S BUREAU

(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.

No major events occurred during the third quarter of 2006.

(e)(2) Rolling 12-month reliability index values (SAIFI, CAIDI, SAIDI, and if available, MAIFI) for the electric distribution company'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.

RELIABILITY BENCHMARKS AND STANDARDS Duquesne Light Company

System Performance Measures with Major Events Excluded

| Entire System | | | | |
|-------------------------|-------|-------|-------|-------|
| • | SAIDI | SAIFI | CAIDI | MAIFI |
| Benchmark | 126 | 1.17 | 108 | * |
| 12 Month Standard | 182 | 1.40 | 130 | * |
| 2006 3Q (Rolling 12 mo) | 86 | 0.77 | 67 | * |

^{*} Sufficient information to calculate MAIFI is unavailable.

Data used in calculating the indices

Total KVA interrupted for the period: 5,376,065 KVA

Total KVA-minutes interrupted: 462,952,600 KVA-Minutes

System connected load as of 9/30/06: 6,960,124 KVA

Formulas used in calculating the indices

SAIFI = (Total KVA interrupted) - (KVA impact of major events)
System Connected KVA

SAIDI = (Total KVA-minutes interrupted) - (KVA-minute impact of major events)

System Connected KVA

CAIDI = SAIDI/SAIFI

(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 electric distribution company defines its worst performing circuits shall be included.

| is . | 3. | Connected | KVA Min | KVA | | | |
|------|-----------------------------|-----------|-------------|-------------|-------|-------|-------|
| Rank | Circuit | KVA | Interrupted | Interrupted | SAIDI | SAIFI | CAIDI |
| 1 | 22869 Midland-Cooks Ferry | 34,481 | 13,415,665 | 99,549 | 389 | 2.9 | 135 |
| 2 | .23620 Raccoon | 44,030 | 3,351,728 | 24,722 | 76 | 0.6 | 136 |
| 3 | 23622 Raccoon | 41,920 | 4,470,447 | 43,311 | 107 | 1.0 | 103 |
| 4 | 23716 Pine Creek | 38,302 | 6,662,134 | 151,395 | 174 | 4.0 | 44 |
| 5 | 23670 Montour | 34,235 | 6,018,028 | 51,920 | 176 | 1.5 | 116 |
| 6 | 23783 Valley | 45,098 | 4,258,988 | 95,537 | 94 | 2.1 | 45 |
| 7 | 23920 Logans Ferry | 28,233 | 3,894,701 | 66,435 | 138 | 2.4 | 59 |
| 8 | 23683 Woodville | 47,554 | 2,544,762 | 18,225 | 54 | 0.4 | 140 |
| 9 | 23715 Pine Creek | 33,812 | 3,342,949 | 51,071 | 99 | 1.5 | 65 |
| 10 | 22860 Valley-Morado No. 2 | 11,185 | 5,525 | 100 | 0.5 | 0.01 | 55 |
| 11 | 22563 Pine Creek-Blaw Knox | 4,555 | 7,297,578 | 26,806 | 1,602 | 5.9 | 272 |
| 12 | 23630 Sewickley | 33,692 | 1,031,435 | 14,353 | 31 | 0.4 | 72 |
| 13 | 23635 Ambridge | 37,088 | 6,240,496 | 71,289 | 168 | 1.9 | 88 |
| 14 | 23870 Mt. Nebo | 26,795 | 4,268,915 | 79,150 | 159 | 3.0 | 54 |
| 15 | 23711 Pine Creek | 33,318 | 2,745,402 | 18,903 | 82 | 0.6 | 145 |
| 16 | 22862 Ambridge-Sewickley #3 | 16,242 | 702,720 | 5,490 | 43 | 0.3 | 128 |
| 17 | 23650 Dravosburg | 27,349 | 2,254,061 | 20,212 | 82 | 0.7 | 112 |
| 18 | 22854 Phillips-Aliquippa | 12,917 | 0 | 0 | 0 | 0.0 | 0 |
| 19 | 23704 North | 33,230 | 2,717,511 | 24,538 | 82 | 0.7 | 111 |
| 20 | 23782 Valley | 37,618 | 2,001,835 | 7,334 | 53 | 0.2 | 273 |

Circuit performance is based on an annual statistical evaluation performed by SGS Statistical Services. Scores are assigned to each circuit based on time-weighted, multi-year outage data, and are available in the first quarter of the year. The scores include analysis of outage duration, outage frequency, mean time between failures, and customers served by each circuit. A gap score is calculated for each circuit by subtracting its composite score percentile from its connected KVA percentile. The circuits are stack-ranked according to gap scores and assigned a performance rank, with 1 being the lowest rank. The circuits in the above list are sorted by performance rank.

Additionally, Duquesne Light's Reliability & Standards group monitors the number of operations of automatic devices (circuit breakers, sectionalizers, reclosers, and fuses) to identify smaller pockets of customers experiencing frequent outages. This analysis goes beyond the circuit level, and is a proactive method of addressing small areas before they begin to affect circuit or system performance indices. This information is used throughout the year to plan and prioritize emergent projects. Projects identified by this method are rolled into the work plan on an ongoing, dynamic basis.

(e)(4) Specific remedial efforts taken and planned for the worst performing 5% of the circuits as identified in paragraph (3)

| Rank | Circuit | Remedial Actions Planned or Taken |
|------|-------------------------------|--|
| 1 | 22869 Midland-Cooks Ferry | VM completed Q4 2002; VM scheduled for 2007. IR survey 7/28/04; hot spots repaired 8/23/04. Lateral fuses installed 5/3/04. Installed new sectionalizers 5/4/05 and 10/24/05; installed new recloser 8/20/05. Pilot to improve communications to hard to reach devices was successful. The improved communications method will be extended to other parts of the system. |
| 2 | 23620 Raccoon | VM completed 10/15/04; VM scheduled for 2009. IR survey 11/23/05; hot spots repaired 1/3/06. Lateral fusing completed 9/05. A new circuit, Crescent 23662, will reduce exposure and connected load on this circuit, scheduled for design in 2007 and construction in 2008. Overload relief for 2 stepdown transformer areas is under construction 90% complete as of 9/29/06. Additional sectionalizing to be designed by 12/31/06 and installed in 2007, including advanced installation of devices proposed for 23662, where practical. Circuit shows significantly improved performance YTD 2006 over 2005 (23,543 vs. 107,246 KVA interrupted; and 3,253,222 KVA-Minutes vs. 8,679,554). |
| 3 | 23622 Raccoon | VM completed 10/4/2005. IR survey 6/29/04; hot spots repaired 8/23/04. Lateral fuses installed 6/04 and 5/05. Repaired failed lightning arresters. Replaced faulty insulators. Overload relief for 2 step-down transformer areas completed 10/06. Installed 3 additional switches in Q4 2005. Beaver Valley Mall rehab scope issued 1/30/06; to be designed & constructed in 2006 & 2007 (Work delayed by customer). YTD 2006 compared to 2005 shows a 50% reduction in outages (18 vs. 36), and similar improvements in KVA interrupted (29,266 vs. 78,164) and KVA-minutes (3,783,696 vs. 6,582,259). |
| 4 | 23716 Pine Creek | New circuit on this list. VM completed 4Q 2004. Next VM proposed for 2008. IR survey 7/1/2004. All defects were repaired. New circuit at Wildwood substation (scheduled for fourth quarter 2008) includes installation of additional sectionalizers to improve restoration on 23716. YTD 2006 compared to 2005 shows a reduction in outages (14 vs. 31), KVA interrupted (48,003 vs. 143,742) and KVA-minutes (4,903,851 vs. 8,560,891). Performance will be monitored throughout 2006. |
| 5 | 23670 Montour | VM completed Q4 2001; VM scheduled for 2006/2007. IR survey 11/11/05; hot spots repaired 1/31/06. Lateral fuses installed 6/05. New circuit, Findlay 23613, will reduce exposure and load on this circuit. Rights of way acquired, and construction in progress, to be completed by 12/06. |
| 6 | 23783 Valley | VM completed Q3 2002; VM scheduled for 2007. IR survey 9/7/04; hot spots repaired 9/13/04. Lateral fuses installed 2/19/04. Defective sectionalizer control replaced 10/11/05. Replaced sectionalizer damaged by lightning. Converted 2 sectionalizers to wireless control. Last wireless conversion scheduled to be completed by 12/06. Additional sectionalizing to be designed in 2006 and installed in 2007. |
| 7 | 23920 Logans Ferry | VM completed Q1 2006. IR survey 6/17/04; hot spots repaired 9/1/04. Lateral fuses installed 2/23/04. New circuit, Logans Ferry 23923, cut in 1/4/06; load transfer in 4/06 reduced exposure and connected KVA. New circuits from California Substation will greatly reduce exposure and connected KVA; expected cut-in 12/06. |
| 8 | 23683 Woodville | IR survey 9/7/04; hot spots repaired 9/13/04. Lateral fuses installed 3/30/04. VM started 5/06; completed 9/06. |
| 9 | 23715 Pine Creek | VM completed 2/4/05. New Wildwood substation is scheduled for cut-in June, 2007. This circuit is not part of the present scope but will be added to the project if necessary. This will reduce exposure and load. Lateral fusing completed on 2/16/05. IR was completed on 2/16/05. One hot spot repaired and four lightning arresters replaced. New circuit at Wildwood substation (scheduled for fourth quarter 2008) includes installation of additional sectionalizers to improve restoration on 23715. |
| 10 | 22860 Valley-Morado No. 2 | VM completed Q1 2006. Switches installed Q4 2005 to improve sectionalizing. Overloaded step- down transformers and non-standard aerial cable will be eliminated through conversion to 23 kV distribution and rearrangement of the area by 12/07. No outages in second quarter 2006; two single transformer outages in third quarter. |
| 11 | 22563 Pine Creek-Blaw Knox | VM completed 4Q 2002. IR survey of RIDC Park area1/13/2006. All defects were repaired. The distribution load on this circuit will be transferred to a new 23 kV circuit supplied from the new California SS, which is to be completed by 12/06. Next VM scheduled for 2008. |
| 12 | 23630 Sewickley | VM completed Q3 2003; VM scheduled for 2007. IR survey 8/10/04; hot spots repaired 9/30/04. Lateral fuses installed. A bulk power substation will be installed at Sewickley, subject to availability of 138 kV rights of way. Related work will include installation of a second Sewickley 23 kV circuit. |
| 13 | 23635 Ambridge | VM completed Q3 2003; VM scheduled for 2007. IR survey 1998. Lateral fusing completed January 2006. |
| 14 | 23870 Mt. Nebo | Repaired sectionalizer that misoperated. Remedial VM completed August/September, 2006. Next VM scheduled for 2008;. Lateral fuses installed 2/5/04. IR survey 7/15/04; hot spots repaired 8/23/04. IR surveyed again on 8/17/05. New circuit Mount Nebo 23871 reduced exposure and load on this circuit; energized 1/10/06. YTD 2006 compared to 2005 shows a reduction in outages (31 vs. 50), KVA interrupted (57,885 vs. 167,924) and KVA-minutes (2,809,042 vs. 19,740,031). |

Notes: VM = Vegetation Management Line Clearance
IR = Infrared Inspection of Overhead Equipment

(e)(4) (continued)

| 15 | 23711 | New circuit on this list. IR Survey 2/17/2006. All repairs completed in third quarter. VM completed |
|----|--------------------------------|--|
| | Pine Creek | third quarter 2006. YTD 2006 compared to 2005 shows a reduction in outages (22 vs. 31). KVA interrupted (16,774 vs. 78,981) and KVA-minutes (2,674,382 vs. 9,478,593). Performance will be monitored for remainder of 2006. |
| 16 | 22862 Ambridge-Sewickley #3 | IR survey 1999. VM completed Q3 2003; VM scheduled for 2007. Circuit experienced only 1 outage year to date, caused by a vehicle. |
| 17 | 23750 Dravosburg | New circuit on this list. VM completed 2003; VM scheduled for 2007. Circuit shows improvement in 2006. YTD 2006 compared to 2005 shows a 41% reduction in KVA-Minutes and 64% reduction in outage incidents. We will continue to monitor performance of this circuit. |
| 18 | 22854 Phillips-Aliquippa | VM completed 8/22/2005; VM scheduled for 2010. A new circuit, Crescent 23662, will be extended to this area in 2008. Remote controlled devices will be installed for service restoration. No forced outages since 7/29/2005. |
| 19 | 23704 North | VM completed in 2003. Next VM scheduled for 2007. New Wildwood substation will allow reduced exposure and load on this circuit. The expected cut-in date for Wildwood SS is 03/08. Lateral fusing completed 3/3/05. IR completed 3/02/05. One hot spot found and repaired. Two blown arrestors and bracing repaired. |
| 20 | 23782 Valley | New circuit on this list. VM completed 7/06. Performance will be monitored in 2006. |

Notes: VM = Vegetation Management Line Clearance IR = Infrared Inspection of Overhead Equipment

(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.

October 1, 2005 through September 30, 2006

| Cause | No of Outages | Outage Percentage | KVA Total | KVA Percentage | KVA-Minute Total | KVA-Minute Percentage |
|---------------------|------------------|----------------------|-----------|-------------------|---------------------|--------------------------|
| Storms: | 320 | 12% | 779,032 | 14% | 86,427,747 | 19% |
| Trees (Contact): | 111 | 4% | 111,263 | 2% | 17,931,511 | 4% |
| Trees (Falling): | 325 | 12% | 658,709 | 12% | 65,977,928 | 14% |
| Equipment Failures: | 857 | 32% | 2,054,111 | 38% | 182,362,192 | 39% |
| Overloads: | 455 | 17% | 82,210 | 2% | 11,017,370 | 2% |
| Vehicles: | 146 | 6% | 383,337 | 7% | 40,471,137 | 9% |
| Other: | 438 | 17% | 1,307,403 | 24% | 58,764,715 | 13% |
| Totals: | 2,652 | 100% | 5,376,065 | _100% | 462,952,600 | 100% |

(e)(6) Quarterly and year-to-date information on progress toward meeting transmission and distribution inspection and maintenance goals/ objectives.

Third Quarter 2006

(e)(6) (continued)

Year to Date 2006

(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.

| Program | 2006 Budget | 3rd Qtr Actual | 3rd Qtr Budget | YTD Actual | YTD Budget |
|--------------------------------------|----------------|-------------------|-------------------|------------|------------|
| Restoration of Service | 4,000,000 | 751,258 | 1,000,000 | 1,672,982 | 3,000,000 |
| Customer Commitment | 2,000,000 | 474,810 | 500,000 | 1,065,516 | 1,500,000 |
| System Maintenance | 21,300,000 | 5,557,120 | 5,325,000 | 17,330,996 | 15,975,000 |
| System Capacity & Reliability | - | - | - | - | - |
| Infrastructure Support | - | - | _ | - | |
| Net Clearing | 10,600,000 | 2,963,742 | 2,650,000 | 7,935,796 | 7,950,000 |
| Total Work Plan | 37,900,000 | 9,746,930 | 9,475,000 | 28,005,290 | 28,425,000 |
| Total Non-Work Plan | 56,664,000 | 14,292,062 | 15,835,506 | 38,506,194 | 41,263,000 |
| Total Operations & Customer Services | 94,564,000 | 24,038,992 | 25,310,506 | 66,511,484 | 69,688,000 |

(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.

| Program | 2006 Budget | 3rd Qtr Actual | 3rd Qtr Budget | YTD Actual | YTD Budget |
|--------------------------------------|----------------|-------------------|-------------------|-------------|-------------|
| Restoration of Service | 18,000,000 | 6,465,768 | 5,235,000 | 13,968,110 | 13,900,000 |
| Customer Commitment | 19,000,000 | 5,770,263 | 5,165,000 | 15,310,613 | 14,045,000 |
| System Maintenance | - | - | - | - | - |
| System Capacity & Reliability | 161,500,000 | 43,561,608 | 51,430,000 | 115,356,231 | 123,045,000 |
| Infrastructure Support | 21,500,000 | 889,470 | 2,230,000 | 18,885,469 | 19,440,000 |
| Net Clearing | 1 | (2,104,118) | - | (5,442,373) | - |
| Total Work Plan | 220,000,000 | 54,582,991 | 64,060,000 | 158,078,050 | 170,430,000 |
| Total Non-Work Plan | - | - | - | - | - |
| Total Operations & Customer Services | 220,000,000 | 54,582,991 | 64,060,000 | 158,078,050 | 170,430,000 |

(e)(9) <u>Dedicated staffing levels for transmission and distribution operation and maintenance at the end of the quarter, in total and by specific category (e.g. linemen, technician, and electrician).</u>

| · · · · · · · · · · · · · · · · · · · | | | |
|---------------------------------------|----------------------------|----------------|---------|
| Telecom | Electronic Technician | 7 | |
| | Sr. Electronic Tech | 12 | |
| | Telecom Splicer/Trouble | 9 | |
| | Test Table Tech | 1 | |
| | Total | 29 | 29 |
| Substation | Electrical Equipment Tech | 32 | |
| | Protection & Control Tech | 33 | |
| | Sr. Elec Equipment Tech | 7 | |
| | Total | 72 | 72 |
| Underground | Apprentice UG | 5 | |
| | Temp Apprentice UG | 0 | |
| | Driver Helper | 10 | |
| | Journey UG Inspector | 4 | |
| | Journey UG Splicer | 18 | |
| | Sr. UG Splicer | 5 | |
| | UG Cable Installer | 2 | |
| | UG Mechanic | 8 | |
| | Network Operator | 7 | |
| | UG Cable Tester | 4 | |
| | Total | 63 | 63 |
| Overhead | Apprentice T&D | 59 | |
| | Laborer | 3 | |
| | Automotive Crane Operator | 4 | |
| | Equipment Attendant | 1 | |
| | Equipment Material Handler | 5 | |
| | Equipment Operator | 1 | |
| | Field Inspector | 4 | |
| | Journey Lineworker | 80 | |
| | Lineworker 2/c | 3 | |
| | Lineworker Helper | 2 | |
| | Rigger Crew Leader | 2 | |
| | Service Crew Leader | 5 | |
| | Shop Mechanic 2 Rigger | 2 | |
| | Yard Group Leader | 2 | |
| | Sr. Lineworker | 67 | |
| | Total | 240 | 240 |
| Street Light Changers | Total | <u>10</u> 3 | 10 3 |
| Mobile Worker | Total | | |

(e)(9) (Continued)

| Engineering | | 4 | |
|---|------------------------------|-------|-------|
| | Temp Drafter | 0 | |
| | Survey | 3 | |
| | General Clerk - Grad | 7 | |
| | General Technician | 4 | |
| | GIS Technician B | 2 | |
| | Head File Record Cle | 1 | |
| | Temp Mobile Worker | 0 | |
| | Joint Use Technician | 1 | |
| | Right of Way Agent A | 4 | |
| | Sr. Technician | 9 | |
| | T&D Mobile Worker | 3 | |
| | Technician A | 7 | |
| | Technician B | 9 | |
| | Technician C | 1 | |
| | Test Technician, Mob | 4 | |
| | Total | 59 | 59 |
| Service Center Technician | General Technician | 0 | |
| | Sr. Technician | 11 | |
| | Technician | 3 | |
| | Total | 14 | 14 |
| Traveling Operator/Troubleshooter | Senior Operator | 31 | |
| | Traveling Operator | 3 | |
| | Traveling Operator 1 | 9 | |
| | Distribution Regulation Tech | 2 | |
| | Troubleshooter | 6 | |
| | Troubleshooter 1/c | 6 | |
| | Total | 57 | 57 |
| Load Dispatcher | Total | 11 | 11 |
| Meter Technician | Meter Technician | 19 | |
| | Sr Meter Technician | 21 | ļ |
| | Total | 40 | 40 |
| Meter Reader | Total | 16 | 16 |
| Customer Service Representatives | Autodialing Operator | 12 | |
| | Control Teller | 1 | |
| | Customer Service Rep | 91 | |
| | Intermediate Clerk | 0 | |
| | Sr. Customer Service | 5 | |
| | Telephone Switchboard | 1 | |
| | Teller | 2 | |
| | Total | 112 | 112 |
| Admin/Supervisory/Mgmt | Total | 425 | 425 |
| | • | Total | 1,151 |
| | | | , |

(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.

Call-out acceptance rate

| | Accepts | Refusals | Total | Percentage |
|-----------|---------|----------|-------|------------|
| July | 156 | 237 | 393 | 40% |
| August | 81 | 174 | 255 | 32% |
| September | 60 | 104 | 164 | 37% |

Amount of time it takes to obtain the necessary personnel

| | Total Calls | Workers Accepting | | ge Response Crew Call-out | Average Response Time / Worker | | |
|-------------|-------------|----------------------|------|------------------------------|-----------------------------------|-----------|--|
| July | 53 | 156 | 20.1 | 1,064/53 | 6.8 | 1,064/156 | |
| August | 31 | 81 | 13.6 | 422/31 | 5.2 | 422/81 | |
| September | 18 | 60 | 23.9 | 431/18 | 7.2 | 431/60 | |
| 3rd Quarter | 102 | 297 | 18.8 | 1,917/102 | 6.5 | 1,917/297 | |
| YTD | 278 | 796 | 25.2 | 7,015/278 | 8.8 | 7,015/796 | |



PPL

Two North Ninth Street Allentown, PA 18101-1179 Tel. 610.774.4254 Fax 610.774.6726 perussell@pplweb.com



FEDERAL EXPRESS

October 30, 2006

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



RECEIVED

OCT 3 0 2006

PA PUTHIC UTILITY COMMISSION CEUDETARY'S EURÉAU

Re:

PPL Electric Utilities Corporation Quarterly Reliability Report for the Period Ended September 30, 2006 Docket No. L-00030161

Dear Mr. McNulty:

Enclosed for filing on behalf of PPL Electric Utilities Corporation ("PPL Electric") are an original and five (5) copies of PPL Electric's Quarterly Reliability Report for the Period Ended September 30, 2006. Also enclosed, in a sealed envelope, is a copy of the report containing competitively sensitive and proprietary information. The Company hereby requests that the Commission treat that information and the report containing the information as privileged and confidential. The report is being filed pursuant to the Commission's Final Rulemaking Order adopted May 7, 2004 in the above-captioned docket.

Pursuant to 52 Pa. Code § 1.11, the enclosed document is to be deemed filed on October 30, 2006, which is the date it was deposited with an overnight express delivery service as shown on the delivery receipt attached to the mailing envelope.

In addition, please date and time-stamp the enclosed extra copy of this letter and return it to me in the envelope provided.

If you have any questions regarding this document, please call me or Joseph M. Kleha, PPL Electric's Manager-Regulatory Projects at (610) 774-4486.

Very truly yours,

Paul E. Russell

Enclosures

cc: Elizabeth H. Barnes, Esquire

Mr. Darren Gill





PPL Electric Utilities Corporation Quarterly Reliability Report to the Pennsylvania Public Utility Commission

RECEIVED

OCT 3 0 2006

PA PUE IC UNILITY COMMISSION SECRETARY'S BUREAU

October 2006

ECHETARY'S BUREAU

(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.

There were no major events during this quarter.

(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.

The following table provides data for the 12 months ended September 30, 2006.

| SAIFI (Benchmark = 0.98; Rolling 12-month Std. = 1.18) | 1.270 |
|--|-------------|
| CAIDI (Benchmark = 145; Rolling 12-month Std. = 174) | 153 |
| SAIDI (Benchmark = 142; Rolling 12-month Std. = 205) | 194 |
| MAIFI ¹ | 6.013 |
| Average Number of Customers Served ² | 1,355,600 |
| Number of Sustained Customer Interruptions (Trouble Cases) | 24,727 |
| Number of Customers Affected ³ | 1,721,130 |
| Customer Minutes of Interruptions | 262,965,699 |
| Number of Customer Momentary Interruptions | 8,150,856 |

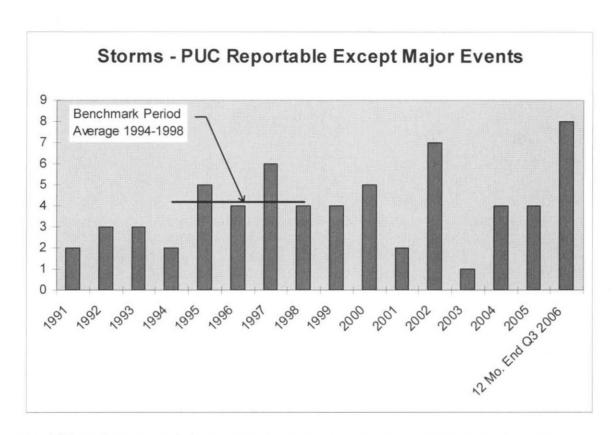
SAIFI has exceeded the 12-month standard, which is a direct result of extraordinary storm experience beyond PPL Electric's control during the reporting period.

Specifically, there were eight (8) PUC reportable storms (\geq 2,500 customers interrupted for \geq 6 hr.) during the reporting period, more than any other single year since 1991, and almost double the average of 4.2 storms per year during the benchmark years, 1994-1998.

¹ MAIFI data is obtained at the substation breaker and does not include momentary interruptions at lower level devices.

² PPL Electric calculates the indices using customers served at the end of the period. This is consistent with the method used to calculate PPL Electric's benchmarks.

³ The data reflects the number of customers interrupted for each interruption event summed for all events, also known as customer interruptions. If a customer is affected by three separate cases of trouble, that customer represents three customer interruptions, but only one customer interrupted.

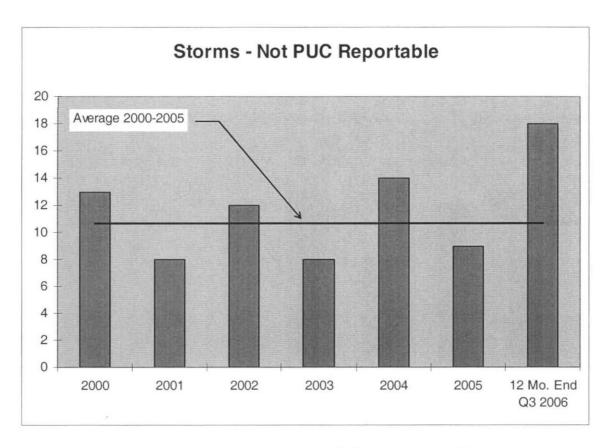


In addition, there were eighteen (18) storms that were not reportable, but which did require opening one or more area emergency centers to manage restoration efforts. This is more than any other year since 2000, when PPL Electric first began tracking the incidence of non-reportable storms.

RECEIVED

OCT 3 0 2006

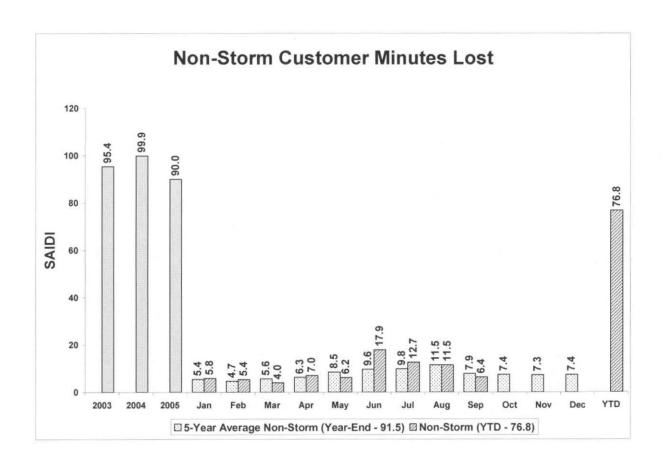
PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU



In an average storm year, customer interruptions during storms contribute about one-third to the total SAIDI value. By contrast, during the twelve months ended September 2006, customer interruptions during storms contributed almost one-half of the total SAIDI value. Ninety-three of the 194 SAIDI minutes were due to storm-related interruptions.

SAIDI during non-storm conditions for the twelve months ended September 2006 was 101 minutes, comparable to that of 2003 through 2005 which were 95 minutes, 100 minutes and 90 minutes respectively.

As shown in the chart below, the year-to-date non-storm SAIDI is 76.8 minutes. Assuming that the 2006 fourth quarter non-storm SAIDI will be at the five-year average of 22.1 minutes (sum of the bars for October, November, and December), PPL Electric projects a year-end non-storm SAIDI of 98.9 minutes.



(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

The following table provides reliability index values for the worst performing 5% of the circuits⁴ in the system for the 12 months ended at the current quarter. An explanation of how PPL Electric defines its worst performing circuits is included in Appendix A.

| WPC Rank | Feeder ID | SAIFI | CAIDI | SAIDI | MAIFI ⁵ | Customers | Cases of Trouble ⁶ | Customer Minutes Interrupted | СРІ |
|-------------|--------------|-------|-------|-------|--------------------|-----------|----------------------------------|------------------------------------|-----|
| 1 | 15701 | 7.91 | 180 | 1,427 | 9.00 | 1,153 | 103 | 1,645,665 | 591 |
| 2 | 16101 | 4.31 | 202 | 870 | 4.00 | 2,509 | 152 | 2,181,712 | 589 |
| 3 | 16402 | 10.47 | 99 | 1,041 | 9.00 | 847 | 68 | 882,028 | 580 |
| 4 | 18502 | 2.82 | 779 | 2,197 | 1.00 | 1,767 | 111 | 3,881,585 | 537 |
| 5 | 26401 | 2.84 | 171 | 485 | 2.00 | 3,165 | 152 | 1,535,955 | 528 |
| 6 | 15601 | 6.31 | 134 | 845 | 9.69 | 2,340 | 105 | 1,976,464 | 528 |
| 7 | 28301 | 4.52 | 182 | 822 | 6.00 | 2,811 | 121 | 2,311,298 | 513 |
| 8 | 28102 | 4.77 | 161 | 769 | 1.00 | 1,661 | 117 | 1,276,883 | 508 |
| 9 | 28801 | 1.94 | 486 | 942 | 9.06 | 2,605 | 132 | 2,454,105 | 503 |
| 10 | 26602 | 4.82 | 242 | 1,170 | 15.02 | 2,962 | 105 | 3,464,837 | 494 |
| 11 | 45402 | 6.05 | 179 | 1,081 | 14.00 | 1,568 | 85 | 1,694,735 | 476 |
| 12 | 11001 | 6.95 | 165 | 1,148 | 8.00 | 859 | 70 | 985,726 | 468 |
| 13 | 11506 | 6.67 | 117 | 779 | 6.00 | 1,272 | 76 | 990,885 | 464 |
| 14 | 12701 | 5.22 | 90 | 470 | 12.00 | 1,492 | 94 | 701,448 | 452 |
| 15 | 22704 | 11.35 | 52 | 592 | 4.00 | 69 | 7 | 40,868 | 446 |
| 16 | 28302 | 4.41 | 193 | 851 | 2.00 | 2,778 | 93 | 2,364,304 | 439 |
| 17 | 26001 | 3.26 | 235 | 764 | 2.00 | 1,267 | 105 | 968,239 | 435 |
| 18 | 22602 | 4.23 | 192 | 811 | 5.00 | 1,446 | 94 | 1,173,087 | 434 |
| 19 | 22001 | 2.29 | 338 | 773 | 2.00 | 1,959 | 111 | 1,514,157 | 434 |
| 20 | 20403 | 5.96 | 94 | 561 | 1.00 | 1,829 | 75 | 1,025,430 | 431 |
| 21 | 55001 | 2.81 | 99 | 279 | 6.00 | 2,906 | 117 | 810,660 | 424 |
| 22 | 10903 | 5.23 | 76 | 397 | 10.34 | 2,022 | 83 | 802,522 | 421 |
| 23 | 10901 | 5.30 | 130 | 688 | 19.44 | 1,494 | 78 | 1,027,650 | 421 |
| 24 | 53602 | 2.40 | 131 | 314 | 3.00 | 3,324 | 118 | 1,042,570 | 417 |
| 25 | 17803 | 5.08 | 137 | 698 | 6.00 | 2,469 | 79 | 1,724,553 | 417 |

⁴ Total number of circuits has grown so 5% is now 55 circuits.

⁵ MAIFI data is obtained at the substation breaker and does not include momentary interruptions at lower level devices.

⁶ Cases of trouble are the number of sustained customer service interruptions.

| WPC Rank | Feeder ID | SAIFI | CAIDI | SAIDI | MAIFI ⁵ | Customers | Cases of Trouble ⁶ | Customer Minutes Interrupted | СРІ |
|-------------|--------------|-------|-------|-------|--------------------|-----------|----------------------------------|------------------------------------|-----|
| 26 | 15702 | 6.83 | 86 | 584 | 7.00 | 1,573 | 56 | 918,918 | 412 |
| 27 | 46302 | 1.69 | 337 | 570 | 8.00 | 1,747 | 105 | 996,620 | 397 |
| 28 | 43202 | 3.71 | 197 | 733 | 9.00 | 2,055 | 85 | 1,505,801 | 393 |
| 29 | 12402 | 5.28 | 156 | 821 | 1.00 | 1,351 | 65 | 1,109,749 | 391 |
| 30 | 23101 | 1.20 | 1,300 | 1,562 | 2.00 | 1,730 | 35 | 2,702,081 | 381 |
| 31 | 44505 | 1.78 | 290 | 515 | 16.00 | 2,331 | 100 | 1,200,021 | 378 |
| 32 | 13102 | 3.51 | 303 | 1,065 | 3.00 | 1,944 | 74 | 2,069,870 | 377 |
| 33 | 22601 | 3.93 | 119 | 466 | 4.00 | 1,936 | 81 | 901,825 | 376 |
| 34 | 24602 | 4.91 | 156 | 765 | 1.00 | 1,502 | 64 | 1,148,292 | 375 |
| 35 | 26702 | 2.44 | 185 | 453 | 5.00 | 2,398 | 96 | 1,085,769 | 372 |
| 36 | 53901 | 4.28 | 186 | 797 | 9.00 | 1,887 | 66 | 1,504,038 | 363 |
| 37 | 17902 | 5.11 | 212 | 1,085 | 23.00 | 976 | 51 | 1,058,621 | 360 |
| 38 | 12002 | 7.84 | 61 | 476 | 11.00 | 1,313 | 23 | 624,582 | 360 |
| 39 | 13502 | 3.77 | 188 | 709 | 13.00 | 2,626 | 70 | 1,861,972 | 355 |
| 40 | 12301 | 1.95 | 476 | 928 | 0.00 | 1,246 | 74 | 1,156,744 | 353 |
| 41 | 40502 | 4.18 | 143 | 599 | 5.00 | 1,830 | 66 | 1,095,816 | 351 |
| 42 | 16802 | 2.60 | 263 | 686 | 24.00 | 1,726 | 76 | 1,184,168 | 342 |
| 43 | 14604 | 5.73 | 186 | 1,068 | 13.04 | 337 | 36 | 360,045 | 339 |
| 44 | 45702 | 2.36 | 288 | 679 | 7.00 | 1,675 | 75 | 1,137,897 | 335 |
| 45 | 12102 | 4.64 | 155 | 720 | 4.00 | 1,929 | 52 | 1,388,682 | 334 |
| 46 | 41002 | 2.53 | 288 | 729 | 4.00 | 1,255 | 72 | 914,794 | 333 |
| 47 | 43401 | 3.39 | 160 | 543 | 8.00 | 1,499 | 69 | 813,596 | 333 |
| 48 | 18501 | 1.89 | 542 | 1,025 | 1.00 | 1,672 | 62 | 1,713,519 | 332 |
| 49 | 67702 | 5.76 | 181 | 1,042 | 12.00 | 877 | 32 | 914,041 | 329 |
| 50 | 17802 | 2.04 | 250 | 511 | 9.00 | 2,330 | 80 | 1,189,745 | 329 |
| 51 | 17001 | 2.70 | 298 | 805 | 9.00 | 1,465 | 67 | 1,178,928 | 328 |
| 52 | 17002 | 4.47 | 155 | 692 | 19.00 | 1,259 | 52 | 871,090 | 328 |
| 53 | 25501 | 1.69 | 188 | 318 | 8.00 | 2,851 | 88 | 907,684 | 325 |
| 54 | 14403 | 1.77 | 153 | 272 | 11.00 | 2,513 | 89 | 682,534 | 323 |
| 55 | 15704 | 5.12 | 94 | 484 | 6.00 | 1,234 | 45 | 596,760 | 323 |

PPL Electric's Circuit Performance Index ("CPI") is derived from the frequency and duration of service interruptions that occurred during the specified time period. Improving a circuit's CPI depends upon reducing either the service interruption frequency or the duration of interruptions, or both. When a new circuit appears among the 5% worst performing, the first step undertaken is to perform a "circuit outage data analysis." This consists of analyzing the actual service interruptions that occurred during the time span to determine if there are causal patterns, or geographic patterns, for which corrective actions are feasible which would improve the circuit's CPI.

(4) Specific remedial efforts taken and planned for the worst performing 5% of the circuits identified in paragraph (3).

| Rank Action | Status | Due/Complex | te Result |
|---|---------------|-------------|---|
| 1 Circuit ID: 15701 TANNERSVILLE 57-01 | - | | CPI: 591 |
| Circuit outage data analysis. | Completed | 6/15/2004 | Major contributor to CPI was the number of cases (approximately 52% of CPI), CAIDI and SAIFI are low. Most contacts were tree related. |
| Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 11/11/2004 | Many tree related outages, some were trimming related. |
| Field engineer will review the circuit for additional tap fuses. | Completed | 7/31/2005 | The main three phase line was analyzed, and no additional locations for fuses were determined. |
| Tree trimming. This circuit was scheduled to be trimmed in support of reconductor work. | Completed | 3/30/2006 | Approximately 1.5 miles of the main three phase line was trimmed in support of the upcoming USF work. |
| Reconductor 1.5 miles of the main line under SP 51216. | Completed | 3/30/2006 | The line was reconductored to increase reliability, allow capacity for load growth, and improve SAIDI. |
| Circuit performance review. | Completed | 6/30/2006 | Inconclusive. Monitor future performance. Faulty sectionalizer identified and repairs are in progress. One LBAS is scheduled to be installed as part of the Reliability Preservation program. |
| 6/30/2006: Repair faulty sectionalizer. | Scheduled for | 12/31/2006 | Reduced outage risk. Repair underway. |
| 6/30/2006: Install one LBAS | Completed | 9/30/2006 | |
| 7/1/2006: Monitor future performance. | Ongoing | | |

| Rank | Action | Status | Due/Complet | e Result |
|----------------|---|---------------|-------------|--|
| 2 Cir | cuit ID: 16101 BINGEN 61-01 | ~ | | CPI: 589 |
| Tree | trimming. Spot trimming. | Completed | 3/31/2004 | Reduced outage risk. |
| Circu | it outage data analysis. | Completed | 6/11/2004 | Number of cases and SAIFI are the two biggest factors in the CPI. There is no detectable pattern of causes. Cases alone contribute 60% of this circuit's performance issues, with SAIFI contributing just under 30%. |
| insta secti | Sectionalizing: Replace 1 fused cutout with an OCR and III 2 fused cutouts to reduce the length of line on a consistency install a 3 phase loadbreak airswitch to le customers to be restored quicker during an outage. | Completed | 7/19/2004 | Reduced customer count affected by each outage. |
| Repl: arres | ace cracked porcelain fused cutouts and lightning ters. | Completed | 6/30/2004 | Reduced outage risk. |
| Insta | Il fault indicators on line to locate momentary problems. | Completed | 8/16/2004 | This was done to locate momentary problems that occur on the line. The installation is complete and the indicators are being used to find the fault faster |
| | ove sectionalizing capability. Investigating splitting the line ow back feeding from other half. | Completed | 2/28/2005 | Majority of performance problems occur on fused taps. Load pick up is not the primary performance issue. |
| | sfer lower portion of line to the Richland 36-3 line to be the length of line exposure. | Canceled | 7/22/2005 | Project was cancelled due to capacity concerns on the Richland Substation. |
| | anductoring 7 single phase taps with XLP and stronger uctor | Completed | 11/30/2005 | Reduced outage risk. Should see reduction in cases, and possibly lower circuit CAIDI |
| | overhead spans that were located in an inaccessible area relocated underground. | Completed | 12/31/2005 | Reduced outage risk. |
| Twer | nty five fault indicators will be installed. | Completed | 3/1/2006 | Reduced outage duration. |
| | onductoring sections of 3 phase line with XLP and stronger uctor. | Scheduled for | 11/30/2006 | Reduced outage risk. |
| | orm Thermovision on 69 kV lines into the Bingen tation. | Completed | 6/21/2006 | No concerns were identified. |
| Tree | trimming. | Scheduled for | 12/31/2006 | Reduced outage risk. |
| | anductor 8 sections of single phase line with XLP and ger conductor | Scheduled for | 10/31/2006 | Reduced outage risk. |
| | 006: Expanded Operational Review. CYME profile ed on 8/14/06. | EOR initiated | 12/31/2006 | |
| | orm Thermovision on this circuit, analyze results, and e repairs. | Completed | 9/21/2006 | Reduced outage risk. |
| Insta | Il animal guard(s). | Completed | 5/30/2006 | Reduced outage risk. |
| | onductor 69 kV transmission system - 3 spans on Quarry copersburg tap and2 spans on Seidersville 1 tap | Scheduled for | 10/27/2006 | Reduced outage risk. Improve load carrying capability of the 69 kv system in area of Bingen distribution substation to avoid conductor failure and subsequent outage |

| Q | |
|---|--|
| 1 | |

| nk Action | Status | Due/Complet | e Result |
|--|---------------|--------------------|--|
| Circuit ID: 16402 MOUNT POCONO 64-02 | | | CPI: 580 |
| Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | | Most of the problems were trees outside of the right of way, but there were some trimming related problems. This circuit did have some hotspot trimming completed earlier in 2004. |
| Tree trimming. Hot spotted in April and May | Completed | 5/31/2005 | Reduced outage risk. |
| Tree trimming. Overgrown areas will be identified by field engineer for hot spot trimming. | Completed | 8/31/2005 | Reduced outage risk. |
| 7/13/2005: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 8/31/2005 | |
| 11/22/2005: Tree trimming. As of 7/8/06, 75% completed. The remainder of the trimming will be completed by 8/31/06. | Completed | 8/31/2006 | Reduced outage risk. |
| 2/16/2006: Line inspection-equipment. | Completed | 3/30/2006 | Customer minutes will be saved by identifying equipment that is prone to failure. |
| 6/15/2006: An intelligent switching project has been identified to reduce customer minutes lost. | Scheduled for | 5/31/2007 | Reduced customer count affected by each outage. |
| 6/15/2006: Evaluate potential ties. | Completed | 8 <i>1</i> 31/2006 | Reduced outage duration. Field review completed 6/2006. Proposed location of new substation located and ties identified. Details forwarded to appropriate personnel. |
| Monitor future performance | Ongoing | | |
| Circuit ID: 18502 CANADENSIS 85-02 | | | CPI: 537 |
| Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 11/11/2004 | There were mostly tree related outages on this circuit. |
| Improve sectionalizing capability. | Completed | 11/16/2004 | Additional fusing was added to a poor performing section of the line. |
| Tree trimming. Hotspot trimming completed | Completed | 12/1/2004 | Reduced outage risk. |
| 1/9/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 2/28/2006 | The majority of problems on this line were due to non-trimming related vegetation issues. In addition, an abnormal sectionalizing event caused power quality and line issues. This event is not expected to recur. |
| 2/16/2006: Tree trimming. Tree Trimming is 10% complete. The remainder of the trimming will be completed in the last quarter of 2006. | Scheduled for | 12/1/2006 | Reduced outage risk. As of 10/10/06, 30% of Tree Trimming has been completed. |
| 2/16/2006: Install LBAS(s). Installed LBAS at 68724N38376 and 69390N35855 as part of the Expanded Operational Review. | Completed | 6/15/2006 | Increasing sectionalizing on the line will reduce the number of customer experiencing an outage. |
| Expanded Operational Review. Perform Voltage Profile. Review circuit for possible LBAS installations. Summer Thermography to be completed 7/27/2006. | Completed | 8/31/2006 | Reduced outage duration. Two LBAS's were been installed 7/2006. Votage profile completed 8/2006. Summer thermography completed 7/2006. |
| Monitor future performance. | Ongoing | | |

| ank Acı | tion | Status | Due/Complet | e Result |
|------------------------------|---|---------------|-------------|---|
| Circuit I | D: 26401 INDIAN ORCHARD 64- | 01 | · | CPI: 528 |
| Circuit outag | e data analysis. | Completed | 6/23/2004 | Major contributors to CPI were the number of cases and SAIFI. Bloomin Grove - West Damascus 69kV tripped to lockout contributing greatly to SAIFI. An OCR failed and is not likely to recur. Many tree related outage both trimming and non-trimming related and animal contacts. Line was trimmed in September 2003 so hotspotting the line will be ineffective. |
| line. A reviev | nalysis of sectionalizing will be completed on this wof the existing protection and potential device be performed. | Completed | 6/25/2004 | Three single phase taps were identified as requiring further sectionalizin and possibly an additional feed from the main line. |
| sectionalizin | tionalizing capability. Areas for further g have been identified. Field engineer will locate ectionalizing devices. | Completed | 12/31/2005 | Reduced customer count affected by each outage. |
| 10/10/2005: preceding qt | Circuit outage data analysis - WPC not on r. list. | Completed | 11/30/2005 | |
| | Underground failures were tested and swill be made. | Scheduled for | 12/31/2006 | |
| | mprove sectionalizing capability. Field engineer additional sectionalizing in the form of s | Scheduled for | 12/31/2006 | Improving sectionalizing will reduce number of customers experiencing outage |
| An intelligen customer mi | t switching project has been identified to reduce nutes lost. | Scheduled for | 5/31/2007 | Reduced customer count affected by each outage. |
| Monitor futur | re performance. | Ongoing | | |
| Circuit l | D: 15601 NO STROUDSBURG 56 | -01 | | CPI: 528 |
| Circuit outag | ge data analysis. | Completed | 6/23/2004 | Major contributor to CPI was the number of cases. There were several burned loops on the line and quite a few animal contacts. |
| Line inspect | ion-equipment. | Completed | 3/31/2005 | |
| Perform line | maintenance identified by line inspection. | Completed | 5/30/2005 | Reduced outage risk. |
| Circuit outag | ge data analysis - WPC not on preceding qtr. list. | Completed | 6/6/2005 | |
| | ion-vegetation. Forester will perform a vegetation on and perform hot spot trimming as required. | Completed | 7/28/2005 | Results sent to field for review. Hot spotting will be scheduled as neede |
| • | s), WR# 218967, WR# 224357, WR# 224423; se installation; | Completed | 12/30/2005 | Fuses and OCRs were installed to reduce the number of customers experiencing an outage |
| | hic inspection-OH line. This circuit will be ned to help identify failed equipment. | Completed | 9/30/2006 | Reduced outage risk. Nothing found. |
| | Tree trimming. Tree trimming is 75% complete as the remainder of the trimming will be completed in later of 2006. | Scheduled for | 12/31/2006 | Reduced outage risk. As of 10/10/06, 90% compete. |
| 1/13/2006: | Install fuse(s). WR 224008 | Completed | 5/3/2006 | Reduced customer count affected by each outage. |
| 6/15/2006: | Evaluate potential ties. | Completed | 9/30/2006 | Reduced outage duration. |

| | • |
|---|---|
| • | _ |
| | , |

| Rank Action | Status | Due/Complet | te Result |
|---|----------------|-------------|---|
| 7 Circuit ID: 28301 NEWFOUNDLAND 83-0 | D 1 | | CPI: 513 |
| Circuit outage data analysis. | Completed | 6/25/2004 | Major contributor to CPI was the number of cases (30%). The contributir outages (mostly trees) did not fall into a discernable pattern. No outages were trimming related. |
| Circuit outage data analysis. | Completed | 8/23/2004 | Review of circuit outages indicated there were two poor performing single phase taps. |
| Improve sectionalizing capability. Increase sectionalizing on two poor performing single phase taps beyond OCR 66696N44669. | Completed | 12/31/2004 | Field review of the poor performing section of line indicated that addition sectionalizing will not greatly improve reliability on that part of the circuit. Tap fusing in the area already adheres to PPL's policy of fusing all single phase taps. |
| Tree trimming. Hot spot trimming on two poor performing single phase taps. | Completed | 3/30/2005 | Reduced outage risk. |
| Circuit outage data analysis. | Completed | 10/20/2004 | Trees and animals accounted for over 70% of the outages seen in the past year. This is a heavily forrested area where trees outside of the righ of way contribute to 50% of the total CPI. Even if all other outages were removed this circuit would still be among the worst performers due to trees outside of the R/W. |
| Line inspection-equipment. | Canceled | 11/30/2005 | Field Engineer determined that line inspection was unnecessary because line was inspected in 2004. |
| 11/23/2005: Betterment project to split one phase tap by sectionalizing. Additional OCR's will be installed. | Scheduled for | 11/30/2006 | Reduced customer count affected by each outage. |
| Tree trimming. Trimming and hot spotting will be done in 2006. | Scheduled for | 11/30/2006 | Reduced outage risk. |
| 2/21/2006: Line inspection-equipment. | Completed | 4/7/2006 | Inspection will help identify problem areas of line that need to be repaire These repairs will prevent possible outages and customer minutes lost, directly impacting SAIDI. |
| 5/25/2006: Expanded Operational Review. | Completed | 9/30/2006 | |
| 5/31/2006: Install animal guard(s). Animal guards were added in quarter 1 of 2006 and will be added as needed. | Ongoing | | Animal guards were added to reduce animal contact related outages. |
| 8 Circuit ID: 28102 TWIN LAKES 81-02 | | | CPI: 508 |
| 10/10/2005: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 11/30/2005 | An inspection was completed in 2004 and problems were addressed. Vegetation was a major issue that caused customer minutes lost. Vegetation related outages were due to weather primarily. |
| 11/23/2005: Tree trimming. | Completed | 2/28/2004 | Reduced outage risk. |
| Line inspection-equipment. Two sections of line will be inspected | Completed | 3/30/2006 | The inspection targets equipment that may fail. By making repairs or replacements, customer outages will be prevented. Nothing significant was found. |
| 5/25/2006: Expanded Operational Review. | Completed | 9/30/2006 | |
| 5/31/2006: Install animal guard(s). Install as outages are seen on the line | Ongoing | | Installing animal guards will prevent future outages on the line due to animal contact |
| 11/23/2005: Monitor future performance. | Ongoing | | |

| nk Action | Status | Due/Comple | te Result |
|---|---------------|--|--|
| Circuit ID: 28801 LAKEVILLE 88-01 | | <u>. </u> | CPI: 503 |
| 7/13/2005: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 8/31/2005 | Vegetation issues caused nearly half of all the outages on this line. Weather was a significant factor for these outages. Trimming was completed on this line in 2005. |
| WR# 237040: OH repairs made as a result of line inspection | Completed | 9/15/2005 | Work completed to reduce customer minutes lost |
| Tree trimming. | Completed | 10/31/2005 | Reduced outage risk. |
| Install fuse(s). WR# 242026; WR#241998; WR#241849 | Completed | 12/31/2005 | Reduced customer count affected by each outage. New fuses being installed to improve SAIDI |
| Install LBAS(s). | Scheduled for | 12/31/2006 | Sectionalizing the line will reduce the number of customers experiencing an outage |
| Install 1 phase OCR(s). | Scheduled for | 12/31/2006 | |
| 5/31/2005: Install animal guard(s). Animal guards are added as needed to the line | Ongoing | | Animal guards are placed after outages are experienced to prevent futu outages. |
| Monitor future performance. | Ongoing | | |

| ınk | Action | *** *** ** | Status | Due/Complet | e Result |
|----------------------------|--|--|---------------|-------------|---|
|) Circ | cuit ID: 26602 | BROOKSIDE 66-02 | | <u>-</u> . | CPI: 494 |
| conta | icts (35% of the total | t. Due to the high number of animal CPI) and equipment failures (22% of ne inspection will be performed. | Completed | 1/30/2004 | Several maintenance items were identified. A WR was initiated to address these problems. |
| Circui | it outage data analys | sis. | Completed | 6/15/2004 | Major contributor to CPI was the number of cases. Animal contacts made up about 35% of the total CPI. |
| install anima | lations to ensure tha | e process for animal guard t animal guards are installed for rmer outages and new OH | Completed | 8/25/2004 | Animal guard practices have been reviewed and troublemen in this area have been instructed to ensure animal guards are installed when and where appropriate. |
| | inspection-equipmen inaccessible part of | t. A helicopter patrol was performed the line. | Completed | 6/10/2005 | Several broken crossarms and a downed static wire were discovered. |
| Fault line. | recorders will be ins | talled on an inaccessible part of the | Completed | 6/30/2005 | Reduced outage duration. |
| | orm line maintenance opter patrol was com | identified by line inspection. pleted | Completed | 12/30/2005 | Broken and failing crossarms were found and repaired to reduce risk of customer outage. |
| Tree | trimming. Hot Spott | ing being done as needed | Completed | 9/30/2005 | Reduced outage risk. |
| Line t | being reconductored | for 0.3 miles (WR# 233124) | Scheduled for | 12/30/2006 | |
| | ional sectionalizing o | being replaced (WR#269977). opportunities being considered by field | Scheduled for | 12/30/2006 | Replacement of the sectionalizer will improve reliability and decrease the number of customers experiencing an outage. |
| portion be re- and s | on of the Brookside 6 built along the roady | cesssible line. An inaccessible 66-02 and 66-04 line is scheduled to vay. The line is planned to be rebuilt 321118 (with an RIS of 11/2007) and 1/2009). | Scheduled for | 11/30/2007 | Rebuilding and sectionalizing the 66-02 line will increase reliability on the circuit by making the route more accessible. In addition, there will be less vegetation exposure following the rebuild of the line. This work will improve CAIDI and SAIDI. |
| | inded Operational Re 2006. | eview. Voltage Profile Completed | Completed | 7/31/2006 | Voltage Profile Completed 7/24/2006. Reliability profile Completed 09/29/2006. |
| 5/3/2 | 006: Install fault ind | cators | Scheduled for | 12/1/2006 | Additional fault indicators will decrease length of customer outages by allowing troublemen to determine where fault occurred more quickly |
| Monit | tor future performance | ce. | Ongoing | | |

| 11 | Circuit ID: 45402 WEST BLOOMSBURG | 54-02 | | CPI: 476 |
|----|---|---------------|------------|--|
| | Line inspection-equipment. | Completed | 7/31/2005 | The line was inspected in the winter of 2004. Some items were identified by inspection including broken tie wires, cracked insulators, bad TFC's, blown LA's. Some of the work requests were done in the first quarter of 2005, and the rest were completed in June/ July 2005. All single phase and three phase fuses were installed on this circuit. |
| | Circuit outage data analysis. | Completed | 8/22/2005 | CPI was driven by SAIFI (3.338; 39% of the CPI) and number of cases (54; 44% of CPI). The major outages in the third quarter of 2004 were because of Hurricane IVAN on 9/18/04. 108 customers were interrupted for approximately 33 hours because of IVAN. While no major outages in Q4, 2004, a snow storm in the first quarter of 2005 caused long outages because of flood and closed bridges. Nothing major in the Q2, 2005 except the not trimming related outage on 4/28/2005. The WPC team noticed that animals caused some outages in the second quarter of 2005, and the field will be looking to install an animal guards where needed to avoid those outages in the future. |
| | Tree trimming. | Scheduled for | 11/30/2006 | The line is 100 miles long, 4 miles urban were trimmed in 2003, and the rest (95miles rural) are scheduled to be trimmed in the fourth quarter of 2006. The circuit is being reviewed for hot spot trimming. Hot spot rimming was partially done in September 2005, and fully completed on the whole circuit by the end of December, 2005. |
| | 11/2/2005: Circuit outage data analysis. | Completed | 11/2/2005 | Major contribution to the CPI was due to SAIFI (46% of total CPI) and the number of cases (46% of total CPI). A vehicle hit on 8/8/2005, and a storm in July caused major outages in the third quarter of 2005. |
| | Line inspection-equipment. | Completed | 9/30/2005 | A line inspection was performed in September 2005. Different items were identified by the inspection including broken tie wires, cracked insulators, bad transformer fuse cutouts, blown lightning arresters. 6 work requests were written as a result of the inspection. WR's 208868, 208701, 208487, 208428, 208357, and 208306 were done by September 2005. The field is planning to perform a thermovision check on the line by the end of 2006. |
| | 11/2/2005: Improve sectionalizing capability. | Completed | 11/2/2005 | The circuit was reviewed for additional sectionalizing in 2005 to improve load transfer capabilities. No locations were identified to install |

Ongoing

sectionalizing devices.

Tree hot spotting in 2005, and the completion of all work requests

identified by inspection are expected to improve the circuit's performance. Major outages occurred on the circuit in the third quarter 2005 were due to events that are not expected to occur again such as the vehicle hit in August. PPL will continue to monitor the circuit's performance.

Status Due/Complete Result

Rank

Action

11/2/2005: Monitor future performance.

| Rank Action | Status I | Due/Comple | te Result |
|--|---------------|------------|--|
| 2 Circuit ID: 11001 EAST GREENVILLE 10-0 | 01 | | CPI: 468 |
| Circuit outage data analysis. Attempting to locate trouble spots. | Completed | 6/11/2004 | Cases are 55% of the circuit's performance problems. After detailed review, there are still no specific known problems. |
| Line inspection-vegetation. Trouble feeders inspected for trees | Completed | 10/14/2004 | Reduced outage risk. No significant performance issues. |
| Protection Scheme re-evaluated | Completed | 10/18/2004 | Reduced customer count affected by each outage. This should reduce customer outage exposure. |
| Tree trimming. | Completed | 9/30/2005 | Reduced outage risk. |
| Improve sectionalizing capability. | Completed | 1/31/2006 | Install two sets of disconnect switches and fault indicators in the northern portion of the circuit to provide for sectionalizing, possible transfer of load to the Macungie 27-1 line, and to help reduce restoration time. |
| Improve sectionalizing capability. Additional fuses will be added as well. | Scheduled for | 12/30/2006 | Project being developed to resectionalize trouble spots, and add better fusing scheme to limit customer exposure. Inaccessible portion of the line will be refed from a new single phase section. Currently being developed to be placed in service as soon as possible. |
| Perform Thermovision on this circuit, analyze results, and make repairs. | Completed | 9/30/2006 | Reduced outage risk. |
| Tree trimming-selected line segments only (hot spots). | in progress | 12/31/2006 | |
| Install telemetrics on electronic OCR | In progress | 12/31/2006 | Reduced outage duration. Thie equipment will allow the System Opertor to open and close the OCR remotely. |

| Ran | k Action | Status | Due/Complet | e Result |
|-----|---|---------------|---|--|
| 13 | Circuit ID: 11506 FREEMANSBURG 15-06 | 5 | *************************************** | CPI: 464 |
| | Circuit outage data analysis. | Completed | 6/11/2004 | Circuit is a rural feeder, many single phase taps have a weak textile strength and are more susceptible to falling branches. Other equipment related issues are suspected. |
| | Line inspection-equipment. | Completed | 6/30/2004 | Reduced outage risk. Several problems were found such as: conductor off insulator, deteriorated crossarms, split pole tops, trees growing into lines, etc. A work request was written to correct these problems. |
| | Repairs to the line based on the line inspection. | Completed | 8/11/2004 | Reduced outage risk. |
| | Tree trimming. A section of line was located that required trimming. | Completed | 10/1/2004 | Reduced outage risk, |
| | Tree trimming. Spot trimming completed 12/17/04 on trouble areas. | Completed | 12/23/2004 | Reduced outage risk. |
| | Replaced Tap fuse that was found to be cracked and damaged. | Completed | 12/23/2004 | Reduced outage risk. This work is completed and should result in lower momentary count, as well as lessen number of customers taken out at a time. |
| | Tree trimming. | Completed | 1/31/2005 | Reduced outage risk. Hot spotting was completed in January of 2005 |
| | One of the single phase taps where the fuse has blown several times was inspected and all maintenance items identified. | Completed | 3/30/2006 | Reduced outage risk. Maintenance issues on this single phase tap have been addressed. |
| | 2/13/2006: Line inspection-vegetation. Several locations were found in need of some tree trimming. | Completed | 5/1/2006 | Reduced outage risk. Hot Spot tree trimming completed. |
| | Tree trimming-selected line segments only (hot spots). | Completed | 6/30/2006 | Reduced outage risk. Trimming to start in early May. |
| | 10/9/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | r 11/30/2006 | |
| | 4/3/2006: Expanded Operational Review. | EOR initiated | 12/31/2006 | Reduced outage risk. |
| | Monitor future performance. Performance appears to have improved and monitoring will continue. | Ongoing | | Trimming and other minor work appears to have improved performance. Monitoring will continue. |
| 14 | Circuit ID: 12701 MACUNGIE 27-01 | | | CPI: 452 |
| | Install Fault Indicators. | Completed | 8/31/2006 | Reduced outage duration. |
| | 7/11/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 8/31/2006 | Three incidents including a customer who cut down a tree on his property which fell on the line and 2 pole hits were the major contributors to outages on this circuit. |

| t | |
|---|---|
| | ì |
| | |

| Rank | Action | Status | Due/Comple | te Result |
|------|---|---------------|-------------|--|
| 15 C | ircuit ID: 22704 MINOOKA 27-04 | | | CPI: 446 |
| | /9/2006: Circuit outage data analysis - WPC not on eceding qtr. list. | Completed | 10/11/2006 | In Sept. 2006, a line segment with 390 customers and 2 MVA of load was permananetly transferred from 22704 to 22701 to accommodate anticipated new load, leaving only 69 customers remaining on 22704. Of the seven interruptions attributed to 22704 in the database, five are associated with the transferred line segment and occurred before the transfer. Manually adding the five outages to the reconfigured 22701 do not place it among the worst performing. No further remedial action is necessary. |
| 16 C | ircuit ID: 28302 NEWFOUNDLAND 83-0 | 2 | | CPI: 439 |
| Cir | cuit outage data analysis. | Completed | 6/15/2004 | Major contributors to CPI were number of cases and SAIFI. There were several animal contacts and tree related outages during bad weather (not trimming related), but no discernable pattern was apparent. The major outages contributing to SAIFI are unlikely to recur (line de-energized to replace tap fuse, pole top fire, loop burned open). This line had an equipment inspection in January 2004. |
| sin | prove sectionalizing capability. Field engineer to review a igle phase tap downstream of OCR 66629N42489 to improve ctionalizing on that tap. | Completed | 11/12/2004 | Field review of the poor performing section of line indicated that additional sectionalizing will not greatly improve reliability on that part of the circuit. Tap fusing in the area already adheres to PPL's policy of fusing all single phase taps. |
| Tre | ee trimming. | Completed | 8/30/2005 | |
| | ne inspection-equipment. Field engineer will identify targeted eas for line inspection. | Completed | 12/31/2005 | Field engineer determined there were no areas requiring line inspections because entire line was inspected in 2004. |
| 3/3 | 31/2006; Line inspection-equipment. | Completed | 3/30/2006 | Customer minutes will be saved by identifying equipment that is in danger of failing. |
| Ex | panded Operational Review. | EOR initiated | 11/30/2006 | |
| Co | ontinue to monitor future performance. | Ongoing | | |
| 7 C | ircuit ID: 26001 WEST DAMASCUS 60-0 |)1 | | CPI: 435 |
| | v/10/2005; Circuit outage data analysis - WPC not on eceding qtr. list. | Completed | 11/30/2005 | Many of the outages were due to vegetation issues during storms. Majority of the outages were weather related. |
| ins | 21/2006: Install animal guard(s). Animal guards will be stalled as customers are restored following an animal-related tage | Ongoing | | Animal guards will prevent animal contact and reduce customer interruptions. |
| | 31/2006: Tree trimming. Hot spotting will be done as accessary | Scheduled for | r 6/30/2007 | Hot spotting will be completed to reduce outages due to trees seen on the line |
| Ex | panded Operational Review. | EOR initiated | 11/30/2006 | |
| | /22/2005: Monitor future performance. | Ongoing | | |

| • | - | - |
|---|---|---|
| (| 2 | ď |
| | _ | • |
| | 1 | |
| | | |

| ank Action | Status | Due/Comple | te Result |
|---|-----------|------------|--|
| 8 Circuit ID: 22602 KIMBLES 26-02 | | | CPI: 434 |
| Circuit outage data analysis. | Completed | 6/23/2004 | Major contributors to CPI were the number of cases and SAIFI. BLGR-WDAM 69kV tripped to lockout which significantly contributed to SAIFI, this event is not likely to recur. |
| Circuit outage data analysis. | Completed | 8/25/2004 | Identified a poor performing single phase tap. |
| Improve sectionalizing capability. Field engineer will review sectionalizing on poor performing single phase tap. | Completed | 12/31/2004 | Two additional OCR's added to improve SAIDI. |
| Fault indicators will be installed on an inaccessible part of the line to facilitate outage restoration. | Canceled | 6/30/2005 | Field engineer determined that fault recorders were unnecessary. |
| 4/10/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 5/31/2006 | Approximately 44% of the CPI contribution was due to trees outside the right of way. In addition, an underground failure at Bohemia substation of february 11, 2006 caused a 69 kV outage due to a stuck breaker. This resulted in a loss of the 69 kV source to the Kimbles Substation, resulting in over 154,000 customer minutes lost. Other outages in January and February were due to wind and other weather conditions. |
| 8/17/2006: Tree trimming. | Completed | 7/30/2006 | |
| 5/31/2006: Install animal guard(s). | Ongoing | | These animal guards are installed as needed, following an outage. This will prevent future animal contact related outages. |
| Monitor future performance. | Ongoing | | |
| 9 Circuit ID: 22001 BOHEMIA 20-01 | | | CPI: 434 |
| Circuit outage data analysis. | Completed | 6/15/2004 | Major contributor to CPI was the number of cases. BLGR-WDAM 69kV Tripped to Lockout due to a crossarm failure which is unlikely to recur. Other outage causes were mostly tree (non-trimming) related but with no discernable pattern Apparent. |
| 4/10/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 5/31/2006 | An underground failure on this circuit resulted in an extended outage. It also caused an outage on the 69 kV line. Over 579,000 customer minute were lost on the line as a result of this. |
| Expanded Operational Review. | Completed | 9/30/2006 | |

| ank Action | Status | Due/Conple | te Result |
|---|---------------|------------|--|
| 0 Circuit ID: 20403 ASHFIELD 04-03 | | <u>;</u> | CPI: 431 |
| Section of line being transferred to adjacent line. | Completed | 1/31/2006 | Reduced customer count affected by each outage. |
| Load balancing. Transferred 1,241 customers from Ashfield 04-3 line to 04-2 line in order to more equitably balance load between feeders. | Completed | 2/9/2006 | Reduced outage risk. WR 244373 (Tap Transfer) and WR 260692 (C-Tag Pole Replacement). |
| 1/9/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 2/28/2006 | Single phase loop burned open, and line had to be dropped to repair. |
| Improve voltage level. | Completed | 6/22/2006 | Reduced outage risk. WR 294596 Install 3 Single Phase Voltage Regulators. |
| Install 1 phase OCR(s). | Scheduled for | 12/31/2006 | Reduced customer count affected by each outage. |
| 7/5/2006: Reconductor line. | Completed | 7/7/2006 | Reduced outage risk. WR 229908 Reconductor 1.4 miles of Iline - convert Kepner Tap from single phase to three phase. |
| 7/5/2006: Expanded Operational Review. | EOR initiated | 12/30/2006 | |
| Tree trimming. | Completed | 3/31/2006 | Reduced outage risk. |
| Monitor future performance. | Ongoing | | |

.

| Rani | k Action | Status | Due/Complet | e Result |
|------|--|---------------|-------------|--|
| 21 (| Circuit ID: 55001 NEWPORT 50-01 | | - | CPI: 424 |
| | mprove sectionalizing capability. Three tap fuses were nstalled. | Completed | 12/31/2003 | Reduced customer count affected by each outage. |
| C | Circuit outage data analysis. | Completed | 6/25/2004 | Vehicles and an ice storm in January 2004 contributed to the CPI. |
| 1 | Two OCRs relocated. Low set setting on breaker changed. | Completed | 8/18/2004 | Reduced customer count affected by each outage. Reduce number of trips. |
| 7 | Tree trimming. | Completed | 8/27/2004 | Reduced outage risk. |
| (| Circuit outage data analysis. | Completed | 12/22/2004 | Area hard hit by Hurricane Ivan in the 3rd quarter. |
| C | Circuit outage data analysis. | Completed | 3/18/2005 | The quarterly CPI has decreased 79% from the 3rd to the 4th quarter. |
| (| Circuit outage data analysis. | Completed | 5/27/2005 | CPI continues to improve. |
| L | ine inspection-equipment. | Completed | 6/30/2005 | Only a few items were found. |
| (| Circuit outage data analysis. | Completed | 8/31/2005 | On 5/7/05 the CB was interrupted when load was transferred and a line loop burned open and then on 5/27/05 an OCR bypass loop burned open. This is not expected to reoccur. |
| (| Dircuit outage data analysis. | Completed | 10/31/2005 | Outage on 8/23/05 due to customer cutting a tree which fell into line. |
| 1 | 12/7/2005: Install LBAS(s). Instal LBAS @ 17530S42150 | Completed | 1/23/2006 | Reduced outage duration. |
| | 1/1/2006: Expanded Operational Review. Reliability Review Complete 6/9/2006. Field Review Complete 6/19/2006. | EOR initiated | 11/30/2006 | WR 306662 Initiated to install 3 tap fuses. (completed) |
| | 2/14/2006: Tree trimming. The main portion of the circuit (first 12 mi of 3 phase) from sub to New Bloomfield. | Completed | 6/24/2006 | Reduced outage risk. Only 31% of the customer minutes in 2005 were tree-related, and of these, a single tree outage from off the right of was was responsible for 20% alone. However, keeping the line on its trimming schedule will demonstrate continued efforts to keep trees from increasing the number of outages. |
| | 2/14/2006: Tree trimming. Remainder of circuit (approx 150 ckt miles). | Scheduled for | 12/31/2007 | Reduced outage risk. |
| ; | 3/31/2006: Improve sectionalizing capability. | Completed | 3/31/2006 | Inconclusive. Monitor future performance. Line reviewed for additional sectionalizing. Circuit has adequate sectionilizing points, and no new sectionalizing points were feasible. |
| • | 5/17/2006; Circuit outage data analysis. | Completed | 5/17/2006 | 2/3 of customer minutes during the 1st qtr 2006 were due to the Feb 17 windstorm. Trees from off the right of way heavily damaged a portion of the main line on this ckt, and an OCR locked out approx 3/4 of the customers on the line. Trees were all from outside the right of way on this heavily wooded circuit. The line was cleared and OCR restored after 140 minutes. |
| • | 6/19/2006: Install fuse(s). WR 306662 Install 3 tap fuses | Completed | 8/9/2006 | Reduced customer count affected by each outage. |
| : | 2/14/2006: Monitor future performance. | Ongoing | | |
| | | | | |

| N |
|---|
| _ |
| • |

| Ran | | Status | Due/Comple | te Result |
|-----|--|---------------|------------|--|
| 22 | Circuit ID: 10903 COOPERSBURG 09-03 | | | CPI: 421 |
| | Circuit outage data analysis. | Completed | 6/15/2004 | The number of cases(45%) and SAIFI(44%) are the biggest factors in the CPI. |
| | Load balancing. | Completed | 6/11/2004 | Reduced outage risk. |
| | Changed relay setting at substation. | Completed | | Completed on 10/26/04, should reduce momentary outages. |
| | Circuit outage data analysis. | Completed | 12/23/2004 | Circuit performance improved through quarters one and two of 2004 because of relay improvements, continued improvement expected in 2005. |
| | Replace Quarry 1 Air Break switch on the 69 kV transmission system at the Coopersburg substation | Completed | 4/28/2006 | The old switch failed to open when load transfers on the 69 kV system were attempted. The new switch is an LBAS which can be opened under load, the old switch could not be opened under load. |
| | 1/9/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 2/17/2006 | This circuit experienced 3 major outages as a result of disturbances on the 69 kV system caused by a pole top fire, a pole hit, and loops burning open. |
| | Tree trimming. | Scheduled for | 10/31/2006 | Reduced outage risk. |
| | Monitor future performance on line, | Ongoing | | |
| 23 | Circuit ID: 10901 COOPERSBURG 09-01 | | | CPI: 421 |
| | 4/10/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 5/31/2006 | This circuit experienced 3 major outages as a result of disturbances on the 69 kV system caused by a pole top fire, a pole hit, and loops burning open. |
| | Replace Quarry 1 Air Break switch on the 69 kV transmission system at the Coopersburg substation | Completed | 4/28/2006 | Reduced outage risk. The old switch failed to open when load transfers on the 69 kV system were attempted. The new switch will be more reliable thus maintaining the ability to transfer loads to avoid or reduce outage time. |

| 1 |
|----|
| 22 |
| • |

| nk | Action | Status | Due/Complete | e Result |
|------------------|---|---------------|--------------|--|
| Circ | ruit ID: 53602 DALMATIA 36-02 | | | CPI: 417 |
| Circuit | outage data analysis - WPC not on preceding qtr. list. | Completed | 12/22/2004 | Area hit by Hurricane Ivan in the 3rd quarter. |
| Install | an electronic OCR on the east side of the river crossing. | Completed | 12/22/2004 | Reduced customer count affected by each outage. |
| Circuit | t outage data analysis. | Completed | | The quarterly CPI has decreased 50% from the 3rd to the 4th quarter. A motor vehicle accident contributed 13% of the customer minutes interrupted in the 4th quarter. Tree timming planned for 2006. |
| Circuit | t outage data analysis. | Completed | 5/27/2005 | CPI continues to improve. |
| Line ir | nspection-equipment. | Completed | | Found a pole on an island in the river crossing requiring replacement due to bank erosion. |
| Circuit | outage data analysis. | Completed | | Inconclusive. Monitor future performance. Outage on 8/11/05 due to trees - not trimming related. Trees trimmed. |
| Tree t | rimming. Main portion of the 3 phase line, to the OCRs. | Completed | 12/30/2005 | Reduced outage risk. |
| 2/17/2 spots) | 1906: Tree trimming-selected line segments only (hot | Completed | | Reduced outage risk. During the Feb 17 windstorm, PPL asked for and received permission to tree trim / cut the worst section of line where trees up a steep bank but off our right of way regularly take the line out. Crews cut down 16' additional right of way for 1/3 of a mile, reducing exposure on the worst tree-endangered portion of this circuit. This section was previously served by the Halifax 39-1 circuit. |
| reloca | 106: Install 3 phase OCR(s). A 3-phase OCR will be ted to just prior to the worst tree-exposed portion of the ong the Susquehanna. | Completed | 3/14/2006 | Reduced customer count affected by each outage. |
| | rimming-selected line segments only (hot spots). sive trimming outside of ROW. | Completed | 3/31/2006 | Reduced outage risk. |
| 5/17/2 | 2006: Circuit outage data analysis. | Completed | | Inconclusive. Monitor future performance. 87% of the customer minutes during the 1st qtr 2006 was due to a car pole and a wind storm Jan 15-18. The vehicle accident was an hour from the service center. The OCR was restored in 134 minutes. All the trees were off corridor. |
| will be | 106: Expanded Operational Review. Operational Review completed in 2006 - Voltage profile and outage history sis. Reliability Review Complete 7/11/2006. | Completed | | Voltage profile showed no problems. 5 unfused taps to be field-checked by tech. Bad tree spots will not be given to foresters b/c entire circuit to be trimmed in 2006 |
| Them | nographic inspection-OH line. | Completed | 9/20/2006 | Reduced outage risk. |
| | ce pole on island in the river crossing weakened due to erosion. | Scheduled for | | Reduced outage risk. Island is uninhabited, and has no road or bridge access. Pa DER will not allow PPL to float a pole across the river due to leaching of preservative into the river. Securing permits to cross the river with men, vehicles, and equipment is proving extremely difficult and time-consuming. Target date to reinforce bank and poles is 11/30/06. |
| | fuse(s). Check unfused taps near 22690n16710, n18530, 28875n19100, and 28875n19100 | Scheduled for | 11/30/2006 | Reduced customer count affected by each outage. |
| Install | fuse(s). Additional fusing- West Shore portion of ckt | in progress | 11/30/2006 | Reduced customer count affected by each outage. Install 5 tap fuses |
| 2/14/2 | 2006: Tree trimming. Remainder of line. | Scheduled for | 11/30/2006 | Reduced outage risk. |

| Rank | | Status | Due/Complete | e Result |
|------|--|---------------|--------------|---|
| 25 C | Circuit ID: 17803 GILBERT 78-03 | ÷ | | CPI: 417 |
| | 0/10/2005; Circuit outage data analysis - WPC not on eceding qtr. list. | Completed | | One vehicle hit caused a 500 minute outage. One dig-in also significantly contributed to customer minutes lost. Neither of these events is expected to recur. |
| | 1/22/2005: A section of underground was checked for failure in this circuit | Completed | 11/30/2005 | Results and recommendation were sent to field engineer. |
| | 10/2006: Circuit outage data analysis - WPC not on eceding qtr. list. Field engineer is analyzing the circuit. | Scheduled for | 12/31/2006 | Reduced outage duration. |
| Im | nprove sectionalizing capability. | Scheduled for | 12/31/2006 | Reduced outage duration. Circuit review and analysis by field engineer completed 9/30/06. Identified one location to install OCR/sectionalizer. |
| | 15/2006: Expanded Operational Review. Reviewed obscibilities for installing sectionalizing devices. | In progress | 12/30/2006 | Reduced customer count affected by each outage. Identified one location to install an OCR/Sectionalizer. |
| 26 C | Circuit ID: 15702 TANNERSVILLE 57-02 | | | CPI: 412 |
| | 10/2006: Circuit outage data analysis - WPC not on eceding qtr. list. | Completed | 4/27/2006 | Inconclusive. Monitor future performance. Scheduled to finalize action items third quarter 2006. |
| | 15/2006: Reconductor line. A section of #2 Cu conductor as identified to increase sectionalizing capability. | Scheduled for | 12/31/2006 | Reduced outage duration. Evaluating least cost solutions. |
| М | onitor future performance. | Ongoing | | |

| 1 | |
|---|--|
| Ņ | |
| 4 | |

| Rank | Action | | Status | Due/Comple | te Result |
|---------------|-------------------------|--------------------------------|---------------|------------|---|
| 27 Cir | rcuit ID: 46302 | ROHRSBURG 63-02 | | | CPI: 397 |
| Circ | uit outage data analysi | s. | Completed | 8/22/2005 | The Rohrsburg 63-2 line was reported as having a high CPI during the first and second quarter of 2004. However, a large number of customers experienced outages, short or long in duration has not been reported for the 1st and 2nd quarters in 2004. It was reported on 2/21/2004, 19 customers experienced a 5 hr. outage due to equipment failure. In the Q2, 2004, 24 customers experienced outages ranging from 7 hrs to 12 hrs due to equipment failure on 6/17/2004. No major outages in the Q4, 2004. A snow storm caused long duration outages in Q1, 2005 where 11 customers experienced an outage for approximately 23 hours because of the flood in the area on 3/23/05. It was reported that there were some non-controllable causes for long outages on this circuit because of lightning. No major outages in the Q2, 2005 beside the outage on 6/6/2005, which was caused by trees-non trimming related in a very windy day. |
| Impi | rove sectionalizing cap | ability. | Completed | 6/1/2005 | The line was reviewed for more sectionalizing devices. No new locations were found. |
| Perf | form line maintenance | identified by line inspection. | Completed | 9/30/2005 | Line maintenance was started by the region in the first week of August, 2005. Nothing major was found. Only lower priority things were found. The pole by pole inspection and the review of fuses on 3 phase and single phase have been done on the circuit by the end of Q3, 2005. |
| Tree | e trimming. | | Scheduled for | 12/31/2006 | The 153 miles long line was originally scheduled to be trimmed in 2007. The work has been advanced into 2006. Hot spot trimmings were completed by the end of 2005. |
| 11 <i>/</i> 2 | 2/2005: Circuit outage | data analysis. | Completed | 11/2/2005 | Major contribution to the CPI on this circuit was due to SAIFI and the number of trouble cases. A storm on 7/14/2005 caused a few long outages on this line. Most of outages in the third quarter of 2005 were due to Trees not trimming related and equipment failure. |
| 11/2 | 2/2005: Line inspection | n-equipment. | Completed | 8/31/2005 | A line inspection was performed in August 2005 on the entire feeder. 11 WR's were initiated as a result of this patrol. All work requests were completed in 2005. The work included de-energized unused tap, replace blown arrestors and bad transformer fuse cutouts. |
| 11/2 | 2/2005: Monitor future | performance. | Ongoing | | In progress work is expected to improve the circuit's performance. PPL will continue to monitor the circuit's performance in the future. |

| • |
|---|
| N |
| S |
| • |

| ank Action | Status | Due/Complet | e Result |
|--|---------------|-------------|---|
| 3 Circuit ID: 43202 MILLVILLE 32-02 | • | - | CPI: 393 |
| Circuit outage data analysis. | Completed | 12/31/2004 | The Millville 32-2 line was reported as having a high CPI during the 1st and 2nd quarter of 2004. During the Q1 of 2004, on 2/6/2004, approximately 254 customers experienced a 1 hr. outage, nothing found was reported. During the Q2 of 2004, 82 customers experienced approximately 4 hr. outage due to a vehicle accident and on 5/10/2004, customers experienced a 8 hr. outage due to equipment failure. Major outages occurred in the Q3 of 2004 because of hurricane IVAN on 9/18 where 22 customers experienced long duration outage because of flood and closed roads. The snow storm in the Q1 of 2005 also caused long duration outages on 3/23/2005. The hurricane IVAN and the snow storm were the major cause for long outages on this circuit. |
| Improve sectionalizing capability. Review line to determine if additional sectionalizing can be added to minimize the number of customers affected by emergency outages. | Completed | 12/30/2004 | Reduced customer count affected by each outage. The 32-2 line was reviewed for locations to add/install additional sectionalizing devices. Nocations were found. A partial inspection on 3 phase line was done in twinter of 2003, and nothing major found on this circuit. Installing additional ocres was looked at as a part of SAIFI initiative study. |
| Tree trimming. | Scheduled for | 12/1/2006 | The line is approximately 162 miles long. The 9.2 miles urban were trimmed in 2004. The 153 miles rural section is in the budget to be trimmed in 2006. The job is expected to be completed by the end of Q4 2006. The majority of this line is in inaccessible area. The line was reviewed by the region forestry staff. Some hot spot trimmings were partially done at certain areas in Apr/May, 2005, and were completed of the whole circuit by 12/30/2005. |
| 10/10/2005: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 11/2/2005 | The storm on 7/13 and 7/14 caused 8 cases of trouble in the third quar of 2005. Trees-not trimming related were the cause of major outages of this circuit. No major outages were in the Q4 of 2005. |
| Improve sectionalizing capability. | Completed | 3/31/2005 | Reduced outage risk. The crew reviewed the line for additional sectionalizing in the first quarter of 2005. A solid blade and additional single phase fuses were installed by the end of Q1, 2005. No additional work is required. |
| Line inspection-equipment. | Completed | 8/30/2005 | Reduced outage risk. A line maintenace inspection patrol was complet in August 2005. Nine work requests were initiated as a result of the inspection. Seven of those work requests were completed in 2005. To work requests remain were completed in the first quarter 2006. One of the work requests requires facility/customer interruption coordination, at the second location requires a special 75 foot bucket. |
| 8/22/2005: Install fuse(s). | Completed | 12/31/2005 | Reduced customer count affected by each outage. The field engineer reviewed the line for additiona fuses. All single phase and three phase fuses were installed by the end of 2005. |
| 3/20/2006: Monitor future performance. | Ongoing | | PPL will continue to monitor the circuit's performance in the future. |
| Circuit ID: 12402 MILFORD 24-02 | | | CPI: 391 |
| 10/9/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 11/30/2006 | |

| Rank Action | Status | Due/Comple | te Result |
|---|---------------|------------|--|
| 0 Circuit ID: 23101 MOSCOW 31-01 | | - | CPI: 381 |
| 10/9/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 11/30/2006 | |
| 1 Circuit ID: 44505 HAMILTON 45-05 | | | CPI: 378 |
| Circuit outage data analysis. | Completed | 12/30/2004 | The Hamilton 45-5 line was reported as having a high CPI in the second and third quarters of 2004. 100% of the high CPI during the second quarter 2004 is due to a vehicle accident which occurred on 5-15-04, 185 customers experienced a 7 hr. outage. 100% of the high CPI during the third quarter of 2004 is due to hurricane IVAN, approximately 25 customers experienced outages ranging from 4 hrs to 32 hrs. (outages reported as non-tree trimming related). Also approximately 150 miles of rural 45-5 line were trimmed in 2003. |
| 11/2/2005: Circuit outage data analysis. | Completed | 11/2/2005 | The major contribution to the CPI was mainly due to the number of cases (70 % of the total CPI). Trees-not trimming related and equipment failure were the major cause of many outages in the third quarter of 2005. |
| 11/2/2005: Tree trimming. | Completed | 12/31/2005 | The line is approximately 164 miles long. The whole circuit was last trimmed in 2003. The next trimming schedule is in 2008 for the urban section, and in 2011 for the rural section. Hot spotting will be evaluated and performed as identified by the forestry crew. |
| 5/25/2006; Line inspection-equipment. | Completed | 3/31/2006 | The line inspection was fully completed by 6/30/2006. Two immediate problems were identified and fixed (bad transformer fuse cutout and bad tap switch). Two work requests were initiated totaling \$5,000 to replace bad transformer fuse cutout and tap switches. An electronic OCR was replaced on this circuit on 2/9/2006. |
| 2/9/2006: Relocate inaccesssible line. | Scheduled for | 12/1/2006 | A reliability preservation job has been approved to relocate an Inaccessible section of the Hamilton 45 - 05 line. A section of #6A conductor is getting overloaded and will be relocated to the road to improve the reliability of the line. The job is in progress and expected to be completed by the end of 2006. |
| 11/2/2005: Monitor future performance. | Ongoing | | |

| ١ | ڔ |
|---|---|
| ` | J |
| • | |

| Ran | k Action | | Status | Due/Complet | e Result |
|-----|--|---|---------------|-------------|--|
| 32 | Circuit ID: 13102 | NORTHAMPTON 31-02 | - | | CPI: 377 |
| | Load balancing. | | Completed | 10/31/2003 | Reduced outage risk. |
| | Circuit outage data analy | sis. | Completed | 6/15/2004 | Number of cases is 55% of the CPI with SAIFI a close second. Two OCR failures in 2003 were a major factor in the SAIFI. |
| | An overloaded single pha larger OCR. | ase OCR is being replaced with a | Completed | 12/19/2004 | |
| | Install Electronic OCR. | | Completed | 4/30/2006 | |
| | 4/3/2006: Expanded Ope | erational Review. | EOR initiated | 12/31/2006 | |
| | 4/10/2006: Circuit outage preceding qtr. list. | e data analysis - WPC not on | Completed | 5/31/2006 | Trees and animals are the primary causes of outages on this circuit. |
| | | apability. Install 2 new LBASs to line with cold load pickup. Install fault BASs. | Scheduled for | 12/31/2006 | Reduced outage duration. |
| | Perform Thermovision or make repairs. | n this circuit, analyze results, and | Canceled | 9/30/2006 | The contract to perform thermovision was exhausted prior to the start of work on this feeder. This circuit will be included in a future thervovision contract. |
| | Monitor future performan | ce of line. | Ongoing | | |
| 33 | Circuit ID: 22601 | KIMBLES 26-01 | | | CPI: 376 |
| | 7/11/2006: Circuit outag preceding qtr. list. | e data analysis - WPC not on | Completed | 8/31/2006 | During an abnormally sectionalized condition when the Kimbles 26-1 line was tied to a Tafton line, a fault occurred on the Tafton line. This outage contributed nearly one fifth of the total customer minutes lost for the past year. In addition to this event, a transmission line fault left the entire Kimbles substation out of service for nearly two hours. These two events, combined with number cases of trouble on customer transformers and single phase line resulted in a high SAIFI and CAIDI for this line. |
| | 8/17/2006: Tree trimming | g. | Completed | 7/8/2006 | Reduced outage risk. Improved reliability by reducing the line's tree exposure thereby limits potential tree contact related outages |
| | 10/16/2006: Monitor futu | re performance. | Ongoing | | |

| Ran | k Action | Status | Due/Complet | e Result |
|-----|---|---------------|-------------|---|
| 34 | Circuit ID: 24602 VARDEN 46-02 | ے | H | CPI: 375 |
| | Circuit outage data analysis. | Completed | 8/23/2004 | Trees outside of the R/W was the largest contributor to CPI. Circuit outage analysis indicated a pattern of tree related outages on two single phase taps. |
| | Tree trimming. Hot spot trimming is planned for two poor performing single phase taps. | Completed | 12/31/2004 | Reduced outage risk. |
| | Improve sectionalizing capability. Field engineer will review the line and install additional sectionalizing on the identified poor performing single phase taps. | Completed | 12/31/2004 | This portion of the circuit is already sectionalized in excess of PPL requirements. Further addition of fusing or other protective devices may risk increasing customers outages through nuisance blowing/tripping. |
| | Monitor future performance. | Ongoing | | |
| | 10/9/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 11/30/2006 | |
| 35 | Circuit ID: 26702 HEMLOCK FARMS 67- | 02 | | CPI: 372 |
| | 10/10/2005: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 11/30/2005 | A vehicle contact contributed significantly to customer minutes lost. This is not expected to occur again. |
| | 2/21/2006: Install new line and terminal. A new line and terminal will be installed and a portion of the line will be rebuilt | Scheduled for | 11/1/2006 | The new line and terminal will sectionalize the line and increase transfer capability, resulting in a reduction of CAIDI. |
| | 11/22/2005: Monitor future performance. | Ongoing | | |
| 36 | Circuit ID: 53901 HALIFAX 39-01 | | | CPI: 363 |
| | Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 3/18/2005 | West Shore portion of the circuit needs to be trimmed. |
| | Improve sectionalizing capability. Transfer load to improve reliability. | Completed | 3/31/2006 | Reduced outage risk. |
| | Tree trimming. West Shore portion of circuit | Completed | 8/31/2005 | Reduced outage risk. |
| | Circuit outage data analysis. | Completed | 5/27/2005 | CPI has improved. Pole top fire on 2/14/2005 outaged the line. |
| | Circuit outage data analysis. | Completed | 8/31/2005 | On 6/29/05 during a period of rain the CB operated due to a tree on a 3 phase tap-inadequate trimming. Tree was trimmed. |
| | Circuit outage data analysis. | Completed | 10/31/2005 | Outage on 8/6/05 was due to trees. Trees were trimmed to restore service. |
| | 1/1/2006: Expanded Operational Review. | Completed | 10/10/2006 | |
| | 5/17/2006: Circuit outage data analysis. | Completed | 5/17/2006 | Inconclusive. Monitor future performance. 75% of the customer minutes in 1st qtr 2006 were due to the two windstorms (Jan 24 & Feb 17). This circuit parallels the Susquehanna river, and several miles of the line run along a steep bank, where trees outside the right of way but far above the line in elevation often take the line out. |
| | Thermographic inspection-OH line. | Completed | 9/15/2006 | Reduced outage risk. Waiting on information from contractor |
| | Monitor future performance. | Ongoing | | |

| Rank | Action | Status | Due/Comple | te Result |
|------|--|---------------|------------|--|
| 37 (| Circuit ID: 17902 BARTONSVILLE 79-02 | C. some | | CPI: 360 |
| E | xpanded Operational Review. Voltage profile. | Completed | 3/17/2006 | Voltage Profile completed 3/17/2006: There is a need to move amps from the C phase to the A and B phase. However, there are no C phase taps small enough to be rephrased to solve the problem. When new taps are made, they should be put on the C phase to help balance the amps per phase. |
| | xpanded Operational Review. Perform Voltage Profile. eview circuit for possible LBAS installation. | Completed | 7/26/2006 | No additional LBAS's are needed. |
| Т | hermographic inspection-OH line. | Completed | 7/26/2006 | Reduced outage risk. |
| 38 (| Circuit ID: 12002 HATFIELD 20-02 | | | CPI: 360 |
| | /11/2006: Circuit outage data analysis - WPC not on receding qtr. list. | Completed | 8/31/2006 | This circuit experienced several lightning storms in June that caused 3 circuit breaker trips and subsequent large customer outages. |
| Т | ree trimming. | Scheduled for | 12/31/2006 | |
| 39 (| Circuit ID: 13502 MCMICHAELS 35-02 | | | CPI: 355 |
| | /11/2006: Circuit outage data analysis - WPC not on receding qtr. list. | Completed | 8/31/2006 | |
| E | xpanded Operational Review. Perform voltage profile. | Completed | 12/31/2006 | Reduced outage risk. The profile results for the 35-02 line show the 3/0 ACSR section along sr715 from white church rd (by the substation) to just west of Neola rd to be overloaded; however it is believed that the N.O. point at grid 66097N31266 (Neola Rd and 715) should be N.C and the LBAS at grid 65965N31192 should be N.O. This change will make all load downstream of OCR 66012N31176 served from the 1-57-01 line as opposed to the 1-35-02 line. Planning is investigating needed actions |

- 29 -

| Rank | Action | Status | Due/Complet | e Result |
|--------|---|-------------|-------------|---|
| 40 Cir | cuit ID: 12301 LANARK 23-01 | * | | CPI: 353 |
| Load | s balancing. | Completed | 12/31/2003 | Reduced outage duration. |
| Circ | uit outage data analysis. | Completed | 6/15/2004 | The number of cases is 67% of the CPI. Two areas have numerous squirrel outages. |
| Tree | trimming. | Completed | 9/1/2004 | Reduced outage risk. |
| | ace an overloaded 3 phase OCR and replace a hydraulic R with an electronic OCR with telemetrics. | Completed | 9/14/2004 | Reduced outage duration. The overload OCR was replaced on 9/7/2004 and the electronic OCR was installed on 5/10/2004. |
| Line | inspection-equipment. | Completed | 3/28/2005 | |
| | nimal guards are being installed on transformers on ons of the line with animal problems. | Completed | 6/20/2005 | Reduced outage risk. |
| Sing | le phase fuse installations. | Completed | 6/20/2005 | Reduced customer count affected by each outage. |
| OCF | R settings were changed to reduce momentary interruptions. | Completed | 6/20/2005 | Reduced outage duration. |
| Tree | trimming. | Completed | 9/30/2005 | Reduced outage risk. Hot spotting started in July. |
| | up a long single phase tap into two taps by installing 3 as of OH line. | Completed | 10/4/2005 | Reduced customer count affected by each outage. Construction completed. |
| Insta | all Fault Indicators | Completed | 2/17/2006 | Reduced outage duration. |
| | all 3 switches in southern part of circuit. Fault indicators to installed next to the new switches. | Completed | 6/9/2006 | Reduced outage duration. |
| Tree | trimming. | Completed | 6/1/2006 | Reduced outage risk. |
| Insta | all Fault Indicators. | Completed | 8/15/2006 | Reduced outage duration. |
| cust | ntelligent switching project has been identified to reduce omer minutes lost. The expected in service date is 1/06. | In progress | 12/31/2006 | Reduced outage duration. |
| | orm Thermovision on this circuit, analyze results, and e repairs. | Completed | 9/27/2006 | Reduced outage risk. No repairs needed as a result of the Thermovision. |
| Mon | itor future performance. | Ongoing | | All of the above work is expected to improve the circuit's performance. |

| Ra | nk Action | Status | Due/Complete | e Result |
|--------|--|---------------|--------------|--|
| 41 | Circuit ID: 40502 CRESSONA 05-02 | | | CPI: 351 |
| | Constructed a tie and permanently transferred a problem section to another circuit with better performance. | Completed | 7/15/2003 | Reduced outage risk. |
| | Transferred inaccessible portion of circuit to another tap. | Completed | 12/31/2003 | Reduced outage risk. |
| | Eliminated inaccessible tap. | Completed | 12/31/2003 | Reduced outage risk. |
| | Circuit outage data analysis. | Completed | 6/30/2004 | Main contributors were cases of trouble (various causes) and SAIFI. |
| | 7/13/2005: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 8/31/2005 | |
| | Tree trimming. | Completed | 8/31/2005 | Reduced outage risk. |
| | 11/21/2005: Line inspection-equipment. | Completed | 6/30/2006 | Reduced outage risk. WR # 265791 Line inspection to be completed by a modified duty lineman. Reduce risk to future equipment related outages. |
| | 2/23/2006: Expanded Operational Review. Voltage Profile Completed in 2005, Reliability Review Completed 2/23/2006, Field WR Review Completed 9/18/06 | Completed | 9/18/2006 | Reliability review completed 2/23/06 Investigate reconductoring the Auburn #1 tie from Auburn West along SR 895. Line inspection to identify reliability issues to be conducted by modified duty lineman. Design complete on minor maintenance work, reliability work and additional tap switches. |
| ် ယ | Line inspection-equipment. | Completed | 5/23/2006 | WR 294523 Inspect antherlite brackets and post insulators. |
| 1 | Perform line maintenance identified by line inspection. | Completed | 8/15/2006 | Reduced outage risk. WR # 299128 to correct 47 min or maintenance repair items. |
| | Perform line maintenance identified by line inspection. | Completed | 9/12/2006 | Reduced outage risk. WR #299129 to perform 98 minor maintenance repair items. |
| | Perform line maintenance identified by line inspection. | Completed | 9/1/2006 | Reduced outage risk. WR 295935 and WR 309985 . Replace anderlite brackets. |
| | Install fuse(s). | Completed | 9/11/2006 | WR 312244 Install tap fuses on the Jefferson tap |
| | Perform line maintenance identified by line inspection. | Completed | 7/28/2006 | |
| | 9/18/2006: Installing OCR communication to frequently locked out OCR. | Scheduled for | 12/31/2006 | Will provide remote reclosing, detailed monitoring, and improved response time to outages downstream of the OCR. |

| Rai | nk | Action | Status | Due/Complet | te Result |
|-----|------------------------|---|---------------|-------------|--|
| 42 | Circu | it ID: 16802 WAGNERS 68-02 | | | CPI: 342 |
| | Circuit o | utage data analysis. | Completed | 6/23/2004 | Major contributor to CPI was the number of cases. There was no conclusive pattern to the outages. |
| | Tree trim | nming. Spot trimming. | Completed | 12/31/2004 | Reduced outage risk. Will continue to monitor this circuit to determine if trimming was successful. |
| | 1/9/2006 atr. list. | i: Circuit outage data analysis - WPC not on preceding | Completed | 2/28/2006 | The majority of the outages were due to non-trimming related vegetation issues. There were also some outages due to vehicle contact and equipment failure. Increasing sectionalizing on the line should mitigate the effect of potential outages |
| | 2/16/200 | 06: Instail LBAS(s). | Scheduled for | 12/1/2006 | Install new LBAS will increase sectionalizing resulting in fewer customer minutes lost in the event of an outage. Two LBAS will be installed as part of the sectionalizing improvement study. |
| | | ed Operational Review. Perform Voltage Profile. circuit for possible LBAS installations. | Completed | 6/29/2006 | Line profile showed a need to balance phases and a possible low voltage. May need to install some capacitance. Transferred 3 single phase taps to balance load. Installed LBASs at 60344N35216 and 59801N34713. |
| | Transfer | red 3 single phase taps to balance load. | Completed | 6/29/2006 | Reduced outage risk. |
| | Installed | LBASs at 60344N35216 and 59801N34713. | Completed | 6/29/2006 | Reduced outage duration. |
| | Tree trin | nming-selected line segments only (hot spots). | Scheduled for | 12/31/2006 | Reduced outage risk. Hot spotting completed. Tree trimming on schedule. |
| | | sectionalizing capability. Two switches will be by the third quarter of 2006. | Completed | 6/29/2006 | Reduced outage duration. |
| | Evaluate | e potential ties. | Scheduled for | 12/31/2006 | Reduced customer count affected by each outage. Potential ties identified. Reviewing least cost alternatives for solution. |
| | Expande locations | ed Operational Review. 400 kVAR identified for four s | EOR planned | 12/31/2006 | |
| | Expande | ed Operational Review. Summer Thermography | Completed | 7/26/2006 | Reduced outage risk. |
| 43 | Circu | it ID: 14604 SO WHITEHALL 46-04 | | | CPI: 339 |
| | Expande | ed Operational Review. Profiling in 2006. | Completed | 6/27/2006 | Profile completed on 4/13/06. Reliability review completed on 6/27/06. Line in good working order. |
| | Install F | ault Indicators | Completed | 5/10/2006 | Reduced outage duration. |
| | Load ba | lancing. Changing one tap to different phase. | Completed | 7/6/2006 | Engineering complete. Awaiting field completion. Tap change completed. |
| | Install F | ault Indicators. | In progress | 12/31/2006 | Reduced outage duration. Engineering complete 6/27/06. Awaiting completion in field. |
| | | 06: Circuit outage data analysis - WPC not oning qtr. list. | Scheduled for | 11/30/2006 | |

| ι | J |
|---|---|
| (| , |
| | • |

| Rani | k _ A | lction | Status | Due/Complet | e Result |
|------|------------------------|---|---------------|-------------|---|
| 44 (| Circuit | ID: 45702 LINDEN 57-02 | | 41: | CPI: 335 |
| | 10/10/200 preceding | 5: Circuit outage data analysis - WPC not on qtr. list. | Completed | 11/2/2005 | The Linden 57-02 line was reported as having a high CPI dring the third quarter of 2005 because of the number of trouble cases. SAIFI contributed 41% to the total CPI. Most outages occurred on the secondary side. No tree outages on this circuit. |
| 1 | 11/2/2005 | : Tree trimming. | Scheduled for | 12/31/2006 | No tree outages on this circuit. The circuit is approximately 91 miles. 3 miles urban were trimmed in 2002, and the 88 miles rural were last trimmed in 2000. The urban section is scheduled to be trimmed in 2007, and the rural to be trimmed in 2006. |
| 1 | 11/2/2005 | i: Line inspection-equipment. | Completed | 3/31/2006 | Line Inspection of 25-30 miles south of Susquehanna River is planned to be completed by the end of the first quarter 2006. A set of disconnects are to be installed on a 3ph line section to speed restoration times. This job is scheduled to be completed by the end of Q2, 2006. |
| 1 | 11/2/2005 | i: Improve sectionalizing capability. | Completed | 11/2/2005 | The Susquehanna region have reviewed the line to determine if additional sectionalizing can be added. No need for sectionalizing on this circuit was found. |
| • | 12/13/200 | 5: Monitor future performance. | Ongoing | | No further action is required for this circuit. The WPC team will continue to monitor the circuit's performance in the future. |
| | 10/9/2006 preceding | i: Circuit outage data analysis - WPC not on qtr. list. | Scheduled for | 11/30/2006 | |
| 45 (| Circui | t ID: 12102 SO ALLENTOWN 21-02 | | | CPI: 334 |
| | • | d Operational Review. Reliability Review completed ield Review in progress. | EOR initiated | 12/1/2006 | |
| I | Install Fac | ult Indicators. | Completed | 3/30/2006 | Reduced outage duration. |
| ı | install 3 p | hase OCR(s). | In progress | 10/31/2006 | Reduced customer count affected by each outage. |
| | 10/9/2006 preceding | 6: Circuit outage data analysis - WPC not on jigtr. list. | Scheduled for | 11/30/2006 | |

| Rank Action | Status | Due/Complex | |
|---|-------------------|--------------------------|--|
| 46 Circuit ID: 41002 LAURELTON 10-02 | alan ana () ay am | W (2 *31 NESC 17 = *13 N | CPI: 333 |
| 8/7/2006: Circuit outage data analysis. | Completed | 8/7/2006 | The team reviewed all outages on the circuit. Many cases of troubles were due to animals on the secondary side. Also, trees-not trimming related caused few long duration outages on this circuit. |
| 8/7/2006: Tree trimming. | Completed | 12/31/2003 | The Laurelton 10-02 is 73 miles long, and it is all rural. It was last trimmed in 2003. The line is scheduled to be trimmed again in 2011. The Forestor crew has been doing hot spotting on this line where needed. The crew will continue to check the circuit for more hot spotting jobs. |
| 8/7/2006: Line inspection-equipment. | Completed | 6/30/2006 | A line inspection was performed in the second quarter of 2006. Different items were identified by the inspection including replacing TFC's, insulators, crossarms, and guys. 18 work requrests were initiated and scheduled to be completed by the end of the third quarter of 2006. |
| 9/26/2006: Install animal guard(s). | Scheduled for | 11/15/2006 | Reduced outage risk. Based on the multi-outage report of repeated outages on a specific transformer, the report is being evaluated. With the help of the foreman, all outages prone device on this list will be double checked for animal guards. |
| 9/26/2006: Install fuse(s). | In progress | 11/1/2006 | Reduced customer count affected by each outage. During the passing of tropical storm Emesto, the breaker tripped due to a transformer blown on a two phase tap. The line was reviewed for proper fusing. 2 fuses were desinged and scheduled to be installed at the line by the end of October 2006. |
| Thermographic inspection-OH line. | Completed | 10/6/2006 | Reduced outage risk. Thermography was done on all 3 and 2 phase sections of this line on October 5th and 6th. No hotspots were found by the line thermovision. |
| 8/1/2006: Monitor future performance. | Ongoing | | |

| nk Action | Status | Due/Complet | e Result |
|--|---------------|-------------|---|
| Circuit ID: 43401 BENTON 34-01 | | | CPI: 333 |
| Circuit outage data analysis. | Completed | 8/22/2005 | CPI for the Q2, 2005 was primarily driven by cases of trouble (152; 49% of CPI). The only reported significant outage occurring on 34-1 during the first quarter of 2004 was a vehicle accident on 1/12/2004 causing 183 customers to be out of service for 2 hrs. During the second quarter of 2004, the high CPI was due to equipment failure, approximately 188 customers experienced outages ranging from 1 hr to 6 hrs, on 5-2-2004, 53-2004, and 5/5/2004. During the third quarter of 2004, approximately 20 customers experienced outages ranging from 7 hrs to 78 hours, due to hurricane IVAN on 9/18/2004. Specifically, 100 of these 200 customers experienced a 78 hour outage due to trees off the right of way (not tree trimming related), however, the remaining 100 customers die experienced a 16 to 20 hr outage due to inadequate tree trimming. 40 CPI points were due to a pole hit during Q4, 2004, and no major outages in Q1, 2005. The circuit improved since the last quarter of 2004, and nothing major in the Q2, 2005. |
| Perform line maintenance identified by line inspection. | Completed | 8/22/2005 | The line was inspected in the winter of 2004, and some items were identified by inspection. Work requests were written for those items to replace transformers, TFC's, LBC's, Ridge Pins, and install animal guards some of the work requests were completed in the first quarter of 2005 and the rest were done by the end of the second quarter. |
| Improve sectionalizing capability. Review line to determine if additional sectionalizing can be added to minimize the number of customers affected by emergency outages. | Completed | 6/1/2005 | Susquehanna Region has reviewed line for locations to add OCR's, or other sectionalizing devices. No new locations were found during the review. |
| 11/2/2005: Circuit outage data analysis. | Completed | 11/2/2005 | Major contribution to the CPI was due to the number of cases (47% of total CPI). Trees not trimming related caused long duration outages in thithird quarter 2005 due to a big storm on 7/13/2005. |
| 11/2/2005: Tree trimming. | Completed | 12/1/2005 | The Benton line 1 is 132 miles long, and it is all rural. The 3-phase hot- spot trimming was completed by December 30 2004. Tree trimming work was fully completed on the circuit by December 2005. Approximately \$400,000 was spent on tree trimming on this line. |
| 11/2/2005: Line inspection-equipment. | Completed | 8/31/2005 | The Benton line was inspected by the end of Q4, 2004. A lot of different items were identified by inspection. WR's 213126, 211539, 205701, 205695, 205639, 205634, 205604, 205401, 205387, 205378, 205332, 204966, and 187571 were written due to inspection. Work requests were completed by August 2005. |
| 2/9/2006: Improve sectionalizing capability. | Completed | 3/20/2006 | Reduced customer count affected by each outage. The line crew reviewed the line for additional sectionlizing devices. An air break switch was installed on the Benton -01 line to reduce the duration of outages on the line. |
| 11/2/2005; Monitor future performance. | Ongoing | | Thermovision of 3 phase was completed in December 05 12.8 miles. No hot spots were found on line. Recent tree trimming and work requests identified by inspection are expected to improve the circuit's performance PPL will continue to monitor the circuit's performance in the future. |
| Expanded Operational Review. | EOR initiated | 12/31/2006 | |

A CONTRACTOR OF THE CONTRACTOR

..

| Rani | k Action | Status | Due/Comple | te Result |
|---------------|---|---------------|------------|---|
| 48 (| Circuit ID: 18501 CANADENSIS 85-01 | | . — | CPI: 332 |
| 11 | ine inspection-vegetation. Forester will schedule a vegetation ne inspection on the main three phase circuit and perform notspot trimming as required. | Completed | 6/30/2005 | |
| | I/10/2006: Circuit outage data analysis - WPC not on preceding gtr. list. Analysis is underway. | Completed | 9/30/2006 | |
| F | Expanded Operational Review. Perform Voltage Profile. Review circuit for possible LBAS installation. Voltage Profile to be completed by 8/15/2006. | EOR initiated | 12/31/2006 | |
| ti | nstalled LBAS at 68260N38085 and 68339N38829. | Completed | 6/30/2006 | Reduced outage duration. |
| i. F i: | Evaluate potential ties. Two possible location have been dentified to transfer approximately 3 MVA between the Mount Pocono 64-02 and Canadensis 85-01 lines. Further evaluation is underway. Expected decision on plan of action by the 4th quarter of 2006. | Completed | 10/10/2006 | Reduced customer count affected by each outage. |
| 49 (| Circuit ID: 67702 WERNERSVILLE 77-02 | | | CPI: 329 |
| 8 | 3/3/2005: Install fuse(s). Fall 2005 SAIDI Project | Completed | 8/3/2005 | Reduced customer count affected by each outage. |
| | 10/9/2006: Circuit outage data analysis - WPC not on preceding gtr. list. | Scheduled for | 11/30/2006 | |

| Ran | k Action | Status | Due/Complex | te Result |
|-----|--|------------------|-------------|--|
| 50 | Circuit ID: 17802 GILBERT 78-02 | ws = <u>*</u> ** | | CPI: 329 |
| | Circuit outage data analysis. | Completed | 6/23/2004 | Major contributor to CPI was the number of cases. Although the line was trimmed in 2000, there were several trimming related outages. |
| | Tree trimming. A work request has been initiated for line segments identified for hot spot trimming | Completed | 9/30/2004 | Reduced outage risk. |
| | A work request was initiated to add series fusing to decrease customer outages on a poor performing section of line. This work is to be completed by October 2004. | Completed | 9/30/2004 | Reduced customer count affected by each outage. |
| | A detailed analysis of sectionalizing will be completed on this line. A review of the existing protection and potential device additions will be performed. | Completed | 9/30/2004 | |
| | 7/13/2005: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 8/31/2005 | |
| | Install fuse(s). WR# 221771; WR# 224357; WR#228964 for sectionalizing device. | Completed | 6/30/2006 | Reduced customer count affected by each outage. Work identified under SAIDI effort to reduce customer minutes lost. |
| | Tree trimming. | Completed | 6/30/2006 | Reduced outage risk. |
| | 11/22/2005: Field Engineer will review locations for additional OCR's | Completed | 9/30/2006 | Reduced outage duration. None required. |
| | 2/16/2006: Install LBAS(s). One LBAS is scheduled to be installed by 11/30/06. | Completed | 7/26/2006 | Reduced outage duration. Installing additional sectionalizing devices will reduce the number of customer experiencing an outage. |
| | Evaluate potential ties. Review in progress and will be completed the end of 2006. | Completed | 9/30/2006 | Reduced outage duration. None available. |
| | Monitor future performance. | Ongoing | | |
| 51 | Circuit ID: 17001 RIDGE ROAD 70-01 | | | CPI: 328 |
| | Expanded Operational Review. | Completed | 9/21/2006 | Voltage profile for light and peak load conditions completed 5-25-2005. Settings one one capacitor need to be changed. New single phase capacitor was installed. Voltage regulator will be installed. Tree trimming was identified along Rt 563. |
| | 10/9/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 11/30/2006 | · |
| 52 | Circuit ID: 17002 RIDGE ROAD 70-02 | | | CPI: 328 |
| | Expanded Operational Review. | Completed | 9/21/2006 | |
| | 10/9/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 11/30/2006 | |

| ţ | ند |
|---|----|
| ¢ | X |
| , | • |
| | |

| Ran | k Action | | Status | Due/Complet | e Result |
|-----|---|---|---------------|-------------|--|
| 53 | Circuit ID: 25501 | MADISONVILLE 55-01 | - ~ | | CPI: 325 |
| | | guard(s). Animal guards were tap. Additional animal guards are | Ongoing | | Installation of animal guards will prevent repeated outages on secitons of line |
| | Circuit outage data analys | is. | Completed | 6/23/2004 | Major contributor to CPI was the number of cases and SAIFI. Many tree related outages both non-trimming and trimming related, equipment failures, and animal contacts. |
| | Tree trimming. | | Completed | 12/30/2004 | Reduced outage risk. |
| | Monitor future performance | e | Ongoing | | |
| | 4/10/2006: Circuit outage preceding qtr. list. | data analysis - WPC not on | Completed | 5/31/2006 | Approximately 29% percent of the CPI was due to equipment failure. Equipment failure related outages affected larger numbers of customers were due to bad weather conditions. Approximately 23% of outages were due to animal contact. Animal guards were installed on a single phase tap and additional animal guards are installed as necessary on the line. |
| | 10/9/2006: Circuit outage preceding qtr. list. | data analysis - WPC not on | Scheduled for | 11/30/2006 | |
| 54 | Circuit ID: 14403 | SO SLATINGTON 44-03 | 3 | | CPI: 323 |
| | Circuit outage data analys | is - WPC not on preceding qtr. list. | Scheduled for | 11/30/2004 | |
| | OCR Review | | Completed | 12/23/2004 | An undersized OCR has been replaced with one more capable of handling load issues. This should drive down outage duration for the effected customers. |
| | Load balancing. | | Completed | 6/15/2005 | Reduced outage risk. |
| | Several OCRs on circuit a additional sectionalizing a | re being upgraded due to load and so in progress. | Completed | 6/28/2005 | Reduced customer count affected by each outage. |
| | 7/11/2006: Circuit outage preceding qtr. list. | data analysis - WPC not on | Completed | 8/31/2006 | Storms in mid-January and late-June are the most significant contrinutors to outage minutes for this circuit. |
| | Install Fault Indicators. | | Scheduled for | 12/31/2006 | Reduced outage duration. |
| | Tree trimming. | | Scheduled for | 12/31/2006 | Reduced outage risk. Trimming of the entire circuit began on 5/30/06. |
| 55 | Circuit ID: 15704 | TANNERSVILLE 57-04 | | | CPI: 323 |
| | 10/9/2006: Circuit outage preceding qtr. list. | data analysis - WPC not on | Scheduled for | 11/30/2006 | |

(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.

The following table shows a breakdown of service interruption causes for the 12 months ended at the current quarter. The top three causes (Animals, Equipment Failure and Trees – Not Trimming Related), based on the percent of cases, are highlighted in the table. Service interruption definitions are provided in Appendix B. PPL Electric's maintenance programs focus on corrective actions to address controllable interruptions (e.g., trees and equipment failure).

| Cause Description | Trouble Cases ⁷ | Percent of Trouble Cases | Customer Interruptions ⁸ | Percent of Customer Interruptions | Customer Minutes | Percent of Customer Minutes |
|---------------------------------|-------------------------------|--------------------------------|--|---|---------------------|-----------------------------------|
| Improper Design | 3 | 0.01% | 4 | 0.00% | 441 | 0.0% |
| Improper Installation | 1 | 0.00% | 3 | 0.00% | 210 | 0.0% |
| Improper Operation | 0 | 0.00% | 0 | 0.00% | 0 | 0.0% |
| Trees - Inadequate Trimming | 1,722 | 6.96% | 129,054 | 7.50% | 26,938,898 | 10.2% |
| Trees - Not Trimming Related | 4,758 | 19.24% | 479,563 | 27.86% | 115,601,443 | 44.0% |
| Animals | 6,386 | 25.83% | 106,927 | 6.21% | 9,272,913 | 3.5% |
| Vehicles | 800 | 3.24% | 136,602 | 7.94% | 14,950,564 | 5.7% |
| Contact/Dig-in | 217 | 0.88% | 33,831 | 1.97% | 2,631,006 | 1.0% |
| Equipment Failure | 5,970 | 24.14% | 513,855 | 29.86% | 59,970,641 | 22.8% |
| Forced Prearranged | 690 | 2.79% | 57,174 | 3.32% | 4,369,059 | 1.7% |
| Other - Controllable | 272 | 1.10% | 15,962 | 0.93% | 1,599,790 | 0.6% |
| Nothing Found | 2,518 | 10.18% | 141,127 | 8.20% | 14,547,371 | 5.5% |
| Other - Public | 96 | 0.39% | 9,539 | 0.55% | 1,086,995 | 0.4% |
| Other - Non-Controllable | 1,294 | 5.23% | 97,489 | 5.66% | 11,996,368 | 4.6% |
| Total | 24,727 | 100.00% | 1,721,130 | 100.00% | 262,965,699 | 100.0% |

⁷ Trouble cases are the number of sustained customer service interruptions (i.e., service outages).

⁸ The data reflects the number of customers interrupted for each interruption event summed for all events, also known as customer interruptions. If a customer is affected by three separate cases of trouble, that customer represents three customer interruptions, but only one customer interrupted.

Analysis of causes contributing to the majority of service interruptions:

Weather Conditions: PPL Electric records weather conditions, such as wind or lightning, as contributing factors to service interruptions, but does not code them as direct interruption causes. Therefore, some fluctuations in cause categories, especially tree- and equipment-related causes, are attributable to weather variations. PPL Electric has experienced a peak in both reportable and non-reportable storms during this reporting period.

Trees – Inadequate Trimming: In 2004, PPL Electric adopted an improved tree-trimming specification and shortened maintenance trimming cycles to reverse a gradual increase in service interruptions attributed to inadequate trimming. The shortened cycle times took effect on January 1, 2005. PPL Electric implemented the revised specification in the first quarter of 2005. PPL Electric is monitoring the effectiveness of these changes.

Trees – Not Trimming Related: Although their effect on reliability is significant, tree outages not related to trimming are caused by trees falling from outside of PPL Electric's rights-of-way, and generally are not controllable.

Animals: Animals account for about 26% of PPL Electric's cases of trouble. Although this represents a significant number of cases, the effect on SAIFI and CAIDI is small because nearly 92% of the number of cases of trouble is associated with individual distribution transformers. However, when animal contacts affect substation equipment, the effect is widespread and potentially can interrupt thousands of customers on multiple circuits. PPL Electric installs squirrel guards on new installations and in any existing location that has been affected by multiple animal-related interruptions.

Vehicles: Although vehicles cause a small percentage of the number of cases of trouble, they account for a large percentage of customer interruptions and customer minutes, because main distribution lines generally are located along major thoroughfares with higher traffic densities. In addition, vehicle-related cases often result in extended repair times to replace broken poles. Service interruptions due to vehicles are on the rise as a result of an increasing number of drivers and vehicles on the road. PPL Electric has a program to identify and relocate poles that are subject to multiple vehicle hits.

Equipment Failure: Equipment failure is one of the largest single contributors to the number of cases of trouble, customer interruptions and customer minutes. However, approximately 40% of the cases of trouble, 39% of the customer interruptions and 46% of the customer minutes attributed to equipment failure are weather-related and, as such, are not considered to be indicators of equipment condition or performance.

Nothing Found: This description is recorded when the responding crew can find no cause for the interruption. That is, when there is no evidence of equipment failure, damage, or contact after a line patrol is completed. For example, during heavy thunderstorms, when a line fuse blows or a single-phase OCR locks open and when closed for test, the fuse holds, or the OCR remains closed, and a patrol reveals nothing.

(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.)

| Inspection & Maintenance Goals/Objectives | Annual | 3rd Q | uarter | Year- | to-date |
|---|---------|---------|---------|---------|---------|
| Inspection & Maintenance Goals/Objectives | Budget | Budget | Actual | Budget | Actual |
| Transmission | | | | | |
| Transmission C-tag poles (# of poles) | 240 | 65 | 92 | 179 | 224 |
| Transmission arm replacements (# of sets) | 1,200 | 356 | 458 | 898 | 1,042 |
| Transmission lightning arrester installations (# of sets) | 24 | 10 | 10 | 19 | 28 |
| Foot patrols (# of miles) | 1,350 | 0 | 74 | 1,350 | 1,195 |
| Transmission air break switch inspections (# of) | 60 | 12 | 8 | 42 | 40 |
| Transmission tree trimming (# of linear feet) | 408,929 | 100,000 | 144,755 | 328,929 | 364,067 |
| Transmission herbicide (# of acres) | 5,002 | 3,302 | 3,356 | 5,002 | 4,849 |
| Substation | | | | | |
| Substation batteries (# of activities) | 833 | 87 | 31 | 818 | 827 |
| Circuit breakers (# of activities) | 3,195 | 700 | 684 | 2,478 | 2,402 |
| Substation inspections (# of activities) | 3,439 | 827 | 740 | 2,626 | 2,615 |
| Transformer maintenance (# of activities) | 2,109 | 397 | 417 | 1,687 | 1,567 |
| Distribution | · | | | | |
| Distribution C-tag poles replaced (# of poles) | 2,232 | 541 | 535 | 1,747 | 2,114 |
| C-truss distribution poles (# of poles) | 384 | 121 | 94 | 242 | 434 |
| Capacitor (MVAR added) | 80 | 10 | 24 | 71 | 79 |
| OCR replacements (# of) | 510 | 78 | 61 | 467 | 530 |
| Oil Switch replacements (# of) | 60 | 17 | 32 | 45 | 67 |
| Distribution air break switch inspections (# of) | 258 | 65 | 37 | 194 | 197 |
| Distribution pole inspections (# of poles) | 79,831 | 29,936 | 34,406 | 59,873 | 77,485 |
| Distribution line inspections (# of miles) | 3,000 | 750 | 958 | 2,250 | 3,507 |
| Group Relamping (# of lamps) | 18,500 | 4,625 | 3,718 | 13,875 | 12,881 |
| Test sections of underground distribution cable | 800 | 200 | 200 | 600 | 662 |
| Distribution tree trimming (# of miles) | 4,667 | 931 | 1,350 | 4,006 | 4,109 |
| Distribution herbicide (# of acres) | 1,325 | 750 | 513 | 1,150 | 666 |
| LTN manhole inspections (# of) | 407 | 114 | 139 | 323 | 327 |
| LTN vault inspections (# of) | 594 | 130 | 172 | 427 | 454 |
| LTN network protector overhauls (# of) | 82 | 14 | 31 | 69 | 61 |
| LTN reverse power trip testing (# of) | 108 | 27 | 29 | 81 | 68 |

(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.)

. . .

The following table provides the operation and maintenance expenses for PPL Electric, as a whole, which includes the work identified in response to Item (6).

| | 3rd Q | uarter | Year- | to-date |
|----------------------------|----------------------|----------------------|----------------------|----------------------|
| Activity | Budget (\$1,000s) | Actual (\$1,000s) | Budget (\$1,000s) | Actual (\$1,000s) |
| Provide Electric Service | 3,681 | 3,757 | 9,972 | 10,771 |
| Vegetation Management | 5,648 | 9,605 | 14,544 | 17,850 |
| Customer Response | 15,981 | 18,093 | 40,050 | 46,811 |
| Reliability & Maintenance | 15,310 | 14,716 | 45,755 | 45,398 |
| System Upgrade | 2,054 | 1,233 | 6,006 | 3,783 |
| Customer Services/Accounts | 18,698 | 19,089 | 54,932 | 54,403 |
| Others | 30,786 | 23,957 | 85,584 | 82,842 |
| Total O&M Expenses | 92,158 | 90,450 | 256,843 | 261,858 |

(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.)

The following table provides the capital expenditures for PPL Electric, as a whole, which includes transmission and distribution ("T&D") activities.

| | 3 rd Qı | ıarter | Year-to-date | |
|---------------------------|----------------------|----------------------|----------------------|----------------------|
| | Budget (\$1,000s) | Actual (\$1,000s) | Budget (\$1,000s) | Actual (\$1,000s) |
| New Service/Revenue | 24,593 | 20,184 | 65,835 | 63,869 |
| System Upgrade | 15,190 | 10,023 | 46,207 | 26,054 |
| Reliability & Maintenance | 14,261 | 13,276 | 35,823 | 40,251 |
| Customer Response | 967 | 1,780 | 2,087 | 3,466 |
| Other | 2,190 | 2,648 | 6,571 | 5,176 |
| Total | 57,201 | 47,911 | 156,523 | 138,816 |

(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).

The following table shows the dedicated staffing levels as of the end of the quarter. Job descriptions are provided in Appendix C.

| Transmission and Distribution (T&D) | | | | |
|-------------------------------------|-----|--|--|--|
| Lineman Leader | 77 | | | |
| Journeyman Lineman | 144 | | | |
| Lineman | 82 | | | |
| Helper | 112 | | | |
| Troubleman | 55 | | | |
| T&D Total | 470 | | | |
| Electrical | | | | |
| Leaders | 42 | | | |
| Journeyman | 90 | | | |
| Electricians | 56 | | | |
| Helpers | 51 | | | |
| Electrical Total | 239 | | | |
| Overall Total 709 | | | | |

Appendix A

PPL Electric Utilities Corporation Worst Performing Circuit Definition

PPL Electric uses a Circuit Performance Index (CPI) to define the worst performing circuits on its system. The CPI covers about 1,100 feeders across the PPL Electric service area.

The CPI is derived using the following statistics and weighting factors:

- Cases of Trouble 9 33%
- CAIDI 30%

2 6. 3

• SAIFI - 37%

Major Events, momentary interruptions, and planned prearranged jobs are excluded.

The CPI values are obtained by multiplying the individual feeder statistics by coefficients based on the 5-year period, 1996-2000. Average values over this period were:

- Cases of Trouble 16.6 per feeder per year
- CAIDI 140 minutes
- SAIFI 0.834 per customer per year

A hypothetical feeder with Cases of Trouble, CAIDI, and SAIFI values equal to the 5-year averages would have a CPI value of 100. Any variations in the values of Cases of Trouble, CAIDI, or SAIFI would affect the CPI values in accordance with the weighting factors.

⁹ Cases of trouble are the number of sustained customer service interruptions.

Appendix B

PPL Electric Utilities Corporation Service Interruption Definitions

3 1 1 B

<u>Trouble Definitions:</u> After field investigations and repairs are complete, PPL Electric linemen report the cause of each case of trouble. This information is electronically recorded as a "cause code" number when the job record is closed. PPL Electric cause codes are subdivided into three general classifications: Controllable, Non-Controllable and Public. The definitions of the cause codes are:

| 10 – Improper Design | Controllable | When an employee or agent of PPL Electric is responsible for an error of commission or omission in the engineering or design of the distribution system. (Facility Records personnel use only) |
|-------------------------------------|----------------------|--|
| 11 – Improper Installation | Controllable | When an employee or agent of PPL Electric is responsible for an error of commission or omission in the construction or installation of the distribution system. (Facility Records personnel use only) |
| 12 – Improper Operation | Controllable | When an employee or agent of PPL Electric is responsible for an error of commission or omission in the operation or maintenance of the distribution system. (Facility Records personnel use only) |
| 30 – Trees – Inadequate Trimming | Controllable | Outages resulting from the lack of adequate tree trimming (within the Right of Way). |
| 35 – Trees – Not Trim Related | Non- Controllable | Outages due to trees, but not related to lack of or proper maintenance tree trimming. This includes trees falling into PPL Electric facilities from outside the right-of-way, danger timber blown into facilities, and trees or limbs cut or felled into facilities by a non-employee. |
| 40 – Animals | Controllable | Any outage caused by an animal directly or indirectly coming in contact with PPL Electric facilities. This includes birds, squirrels, raccoons, snakes, cows, etc. |
| 41 – Vehicles | Public | When cars, trucks or other types of vehicles or their cargoes strike facilities causing an interruption. |
| 51 – Contact/Dig-in | Public | • When work in the vicinity of energized overhead facilities results in interruptions due to accidental contact by cranes, shovels, TV antennas, construction equipment (lumber, siding, ladders, scaffolding, roofing, etc.). |
| | | When contact is made by a non-employee with an underground facility causing interruption. |

Appendix B

| 60 – Equipment Failure | Controllable | Outages resulting from equipment failures caused by corrosion or contamination from build-up of materials, such as cement dust or other pollutants. |
|---|----------------------|---|
| | | Outages resulting from a component wearing out due to age or exposure, including fuse tearing or breaking. |
| | | Outages resulting from a component or substance comprising a piece of equipment failing to perform its intended function. |
| | | Outages resulting from a failure that appears to be the result of a manufacturer's defect or cannot be described by any other code indicating the specific type of failure. |
| 80 – Scheduled Prearranged ¹⁰ | Controllable | • Interruptions under the control of a PPL Electric switchman or direction of a PPL Electric System Operator for the purpose of performing scheduled maintenance, repairs, and capacity replacements for the safety of personnel and the protection of equipment. |
| | | • Includes requests from customers for interruption of PPL Electric facilities. |
| 85 – Forced Prearranged | Non- Controllable | Interruptions under the control of a PPL Electric switchman or direction of a PPL Electric System Operator for the purpose of dropping load or isolating facilities upon request during emergency situations. |
| | | • Interruptions which cannot be postponed or scheduled for a later time, and include situations like load curtailment during system emergencies, and requests of civil authorities such as fire departments, police departments, civil defense, etc. for interruption of PPL Electric facilities. |

¹⁰ Interruptions under the control of a PPL Electric switchman or the direction of a PPL Electric System Operator for the purpose of isolating damaged facilities to make repairs are reported using the initial cause of the damage when the interruption is taken <u>immediately</u>, but are reported as scheduled prearranged when the interruption is <u>postponed</u>.

Appendix B

| 90 – Other – Controllable (Lineman provides explanation) | Controllable | Interruptions caused by phase to phase or phase to neutral contacts, resulting from sleet or ice dropping off conductors, galloping conductors, or any other phase to phase or phase to neutral contact where weather is a factor. |
|---|----------------------|---|
| | | • Interruptions resulting from excessive load that cause that facility to fail. |
| | | When restoration of service to a facility, which had been interrupted for repairs or other reasons, causes an additional interruption to another facility which had not been involved in the initial interruptions. |
| 96 – Nothing Found | Non- | When no cause for the interruption can be found. |
| | Controllable | When there is no evidence of equipment failure, damage, or contact after line patrol is completed. This could be the case during a period of heavy T&L when a line fuse blows or a single phase OCR locks open. |
| | | When closed for test, the fuse holds or the OCR remains closed. A patrol of the tap reveals nothing. |
| 98 – Other Public (Lineman provides explanation) | Public | All outages resulting from gunfire, civil disorder, objects thrown, or any other act intentionally committed for the purpose of disrupting service or damaging company facilities. |
| 99 – Other – Non- Controllable (Lineman provides explanation) | Non- Controllable | Any outage occurring because of a fire, flood, or a situation that develops as a result of a fire or flood. Do not use when facilities are de-energized at the request of civil authorities. |
| | | When an interruption is caused by objects other than trees, such as kites, balls, model airplanes, roofing material, and fences, being accidentally blown or thrown into overhead facilities. |
| | | All interruptions caused by contact of energized equipment with facilities of other attached companies or by trouble on customer owned equipment. |



Robert R. Stoyko Vice President - Electric Distribution



UGI Utilities, Inc. Hanover Industrial Estates 400 Stewart Road Wilkes Barre, PA 18706-1495

(570) 830-1222 Telephone (570) 830-1190 Fax rstoyko@ugi.com

November 1, 2006

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



RE: Quarterly Electric System Reliability Report 12 Months Ending September 30, 2006

Dear Secretary McNulty:

Pursuant to the Commission's Final Rulemaking Order addressing Electric Service Reliability Regulations (52 Pa. Code §§57.191 - 57.197) at Docket Nos. L-00030161 and M-00991220, UGI Utilities, Inc. - Electric Division ("UGI") hereby files an original and six copies of its Quarterly System Reliability Report. This report contains SAIDI, SAIFI, and CAIDI results on a 12-month rolling basis for the period ending September 30, 2006 along with the raw data from the same period. Also included is a breakdown of outages by cause for the 12 months ending September 30, 2006. The actual statistics continue to be favorable to both the benchmark and standard adopted for UGI.

The Office of Consumer Advocate, the Office of Small Business Advocate, the Bureau of Audits, and the Bureau of Conservation, Economics and Energy Planning have each been served with copies of this filing.

Questions related to the attached report should be directed to Ms. Abigail J. Hemmerich at (610) 796-3431 or email ahemmerich@ugi.com.

Kindly acknowledge receipt of this filing by date stamping the enclosed copy of this letter and returning it in the enclosed stamped, self-addressed envelope.

Sincerely,

Robert R. Stoyko Vice President - Electric Distribution Attachment

Self Unity Comment



cc: <u>FEDERAL EXPRESS</u>

Irwin A. Popowsky
Office of Consumer Advocate
555 Walnut St.
5th Floor, Forum Place
Harrisburg, PA 17101-1921

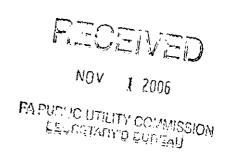
William R. Lloyd Office of Small Business Advocate Suite 1102, Commerce Bldg. 300 North Second St. Harrisburg, PA 17101

Thomas E. Sheets
Bureau of Audits
Pennsylvania Public Utility Commission
Commonwealth Keystone Bldg.
3rd Floor, F East
Harrisburg, PA 17101

Darren Gill
Supervisor of Electric Reliability
Bureau of Conservation, Economics and Energy Planning
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120



UGI Utilities, Inc. – Electric Division System Reliability Report: Quarterly Update



November 1, 2006

UGI Utilities, Inc. – Electric Division System Reliability Report

§ 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.

No major events occurred during the preceding quarter.

§ 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.

The 12 month rolling reliability results for UGI's service area are as follows:

| | SAIFI | SAIDI | CAIDI |
|---------------------------------|-------|-------|-------|
| 12-Month Standard | 1.12 | 256 | 228 |
| 12-Month Benchmark | 0.83 | 140 | 169 |
| 12 months Ended September, 2006 | 0.78 | 84 | 108 |

Note:

SAIFI – System Average Interruption Frequency Index SAIDI – System Average Interruption Duration Index

CAIDI - Customer Average Interruption Duration Index

Raw Data: October 2005 - September 2006

| Month | SI | TCI | TCB | TMCI |
|----------|-----------|--------------|---------------|----------------|
| Oct-2005 | 45 | 5,703 | 61,787 | 524,327 |
| Nov-2005 | 63 | 6,240 | 61,827 | 717,080 |
| Dec-2005 | 33 | 562 | 61,876 | 93,771 |
| Jan-2006 | 55 | 4,232 | 61,946 | 664,701 |
| Feb-2006 | 44 | 8,426 | 61,990 | 775,329 |
| Mar-2006 | 19 | 589 | 61,952 | 31,327 |
| Apr-2006 | 52 | 3,580 | 61,881 | 395,664 |
| May-2006 | 61 | 1,797 | 61,834 | 340,322 |
| Jun-2006 | 83 | 6,969 | 61,842 | 746,175 |
| Jul-2006 | 61 | 755 | 61,780 | 144,081 |
| Aug-2006 | 61 | 5,937 | 61,829 | 475,143 |
| Sep-2006 | <u>52</u> | <u>3,273</u> | <u>61,869</u> | <u>281,956</u> |
| TOTAL | 629 | 48,063 | 61,868 * | 5,189,876 |

UGI Utilities, Inc. – Electric Division System Reliability Report

SI: Sustained Interruptions
TCI: Total Customers Interrupted

TCB: Total Customer Base (*12-month arithmetic average)

TMCI: Total Minutes Customer Interruption

Note: There were no major events excluded from the numbers used in calculating the indices.

SAIFI

The 12-month rolling SAIFI index decreased 4% from 0.81 in our last quarterly report to 0.78 for the period ending September 2006.

Severe storms during May and June 2006 resulted in downed power lines and a number of distribution line pole washouts. UGI's 12-month rolling SAIFI and SAIDI indices continue to reflect the impact of these service interruptions. Additionally, UGI continues to experience a significant number of failures of the A. B. Chance fuse cutout.

SAIDI

The SAIDI value for the 12 months ending September 2006 is 84. This result is 12.5% lower than results reported through June 2006 and tracking well below UGI's benchmark level of 140.

CAIDI

The CAIDI result of 108 for the 12-month reporting period ending September, 2006 is 8% lower than last reported.

UGI Utilities, Inc. – Electric Division System Reliability Report

§57.195(e)(5)—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 the 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.

Outage by Cause: October 2005 - September 2006

| Cause | % of Total Incidents | Number of Interruptions | Customers Interrupted | Minutes Interrupted |
|--------------------|-------------------------|----------------------------|--------------------------|------------------------|
| Animal | 12.08% | 76 | 3,640 | 204,663 |
| Company Agent | 0.32% | 2 | 60 | 1,144 |
| Construction Error | 0.48% | 3 | 21 | 3,489 |
| Customer Problem | 1.11% | 7 | 22 | 4,881 |
| Equipment Failure | 37.84% | 238 | 11,712 | 1,057,917 |
| Lightning | 9.22% | 58 | 4,647 | 702,896 |
| Motor Vehicle | 4.45% | 28 | 6,248 | 480,548 |
| Other | 0.79% | 5 | 19 | 2,115 |
| Public | 2.23% | 14 | 4,267 | 227,010 |
| Structure Fire | 0.48% | 3 | 58 | 4,967 |
| Trees | 22.26% | 140 | 13,842 | 1,840,515 |
| Unknown | 3.82% | 24 | 1,484 | 143,087 |
| Weather/Ice | 0.16% | 1 | 7 | 1,890 |
| Weather/Wind | <u>4.77%</u> | <u>30</u> | <u>2,036</u> | <u>514,754</u> |
| TOTAL | 100.00% | 629 | 48,063 | 5,189,876 |

Proposed Solutions to Identified Problems:

Thirty-eight percent of the outages reported above resulted from equipment failure. A significant portion of these equipment failures are attributed to a problem with the A. B. Chance fuse cutouts utilized on the UGI system. As discussed in previous reports, UGI has implemented a replacement program to actively identify and replace these defective parts. The replacement work effort is ongoing.



Brian D. Crowe

Director

Rates & Regulatory Affairs

Telephone 215.841.5761

Fax 215.841.6333

www.exeloncorp.com

brian.crowe@peco-energy.com

An Exelon Company

PECO Energy Company 2301 Market Street Philadelphia, PA 19103

Mail To: P.O. Box 8699 Philadelphia, PA 19101-8699

November 1, 2006





FedEx

Mr. James McNulty, Secretary Pennsylvania Public Utility Commission Commonwealth Keystone Building 400 North Street Second Floor Harrisburg, Pennsylvania 17120

Re: PUC Docket No. L-00030161

Rulemaking Re Amending Electric Service Reliability Regulations at

52 Pa. Code Chapter 57

Dear Secretary McNulty:

In accordance with Electric Service Reliability Regulations at 52 Pa. Code Chapter 57, enclosed are an original and six copies of PECO's 2006 Quarterly Reliability Report for the period ending September 30, 2006.

Because portions of the report contain sensitive and proprietary information, PECO is filing two versions of the report, one public and one proprietary. PECO requests that the proprietary report, which has been separated and clearly marked with a "Confidential and Proprietary" header on each page, be kept confidential, pursuant to commission order of March 20, 2006.

If you have any further questions regarding this matter, please call me at 215-841-5316.

Sincerely,

cc: Office of Consumer Advocate

Bua) lum

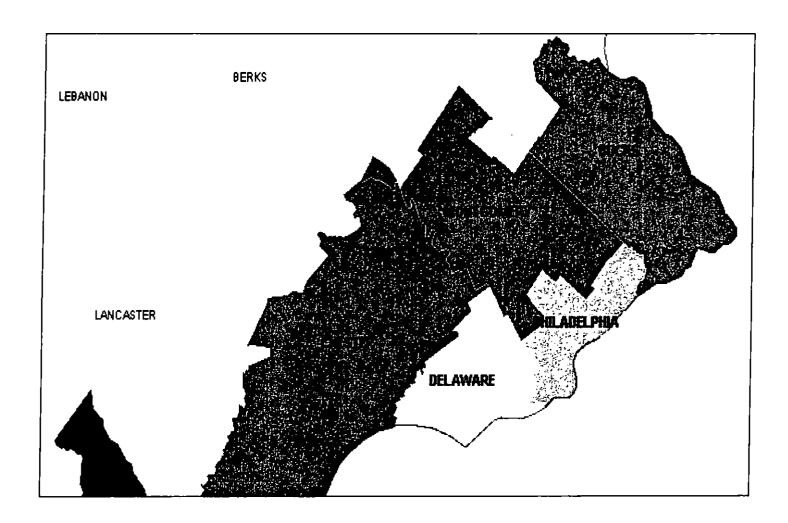
Office of Small Business Advocate

enclosures

SAN/mtg

59

PECO Energy Company Quarterly Reliability Report For Period Ending September 30, 2006



November 1, 2006



PECO Energy ("PECO") Quarterly Reliability Report for the Period Ending September 30, 2006 filed with the Pennsylvania Public Utility Commission.

<u>Submitted per Rulemaking Re: Amending Electric Service, Docket No. L-00030161 Reliability Regulations at 52 Pa.Code Chapter 57</u>

Section 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 wind and lightning storm occurred on July 18, 2006 with service interruptions first reported at 6:36 p.m. The storm affected over 480,000 customers. Full customer service restoration was complete on July 24, 2006, at 6:45 p.m. The majority of outages occurred in Chester and Montgomery counties although all counties in the PECO service territory were affected. More than 3,600 employees including 1,000 Peco Field employees, 1,000 contract employees, 488 tree trimmers, 1,000 Peco back office employees and 220 workers from foreign utilities were involved in the restoration process. The storm contained winds in excess of 70 miles per hour and more than 6,500 lightning strikes.

Section 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."

| PECO Customers | Sustained Customer Interruptions | Customer | Momentary Customer Interruptions | | SAIFI | CAIDI | SAIDI | MAIFI |
|-------------------|--|-----------|--|-------------|-------|-------|-------|-------|
| 1,630,831 | 2,187,728 | 4,775,892 | 1,196,573 | 286,553,522 | 1.34 | 131 | 176 | 0.73 |

Data reflects 12 months ending 9/30/2006

| PECO Benchmarks and Rolling 12-Month Standards | | | | | | |
|--|-------|-------|-------|------|--|--|
| | SAIFI | CAIDI | SAIDI | MAIF | | |
| Benchmark | 1.23 | 112 | 138 | N/A | | |
| Rolling 12-Month Standard | 1.48 | 134 | 198 | N/A | | |

SAIFI, CAIDI, and SAIDI are above their respective benchmarks, but below the standards established on May 7, 2004. No benchmark or standard was established for MAIFI.

PECO experienced large storms in January and June of 2006 that were not major events by PUC criteria. These storms combined to affect over 300,000 customers, increasing SAIFI by 0.20 and also increasing CAIDI and SAIDI.

Section 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."

PECO's worst performing 5% circuits for 2006 are selected based on rolled up customer interruptions – a count of all customer interruptions on a given circuit and on other circuits for which it is a source, due to outages on the given circuit in a 12 month period. This measure is oriented toward its contribution to system SAIFI. In addition, circuits with a history of repeat appearance on worst performing lists, or with high circuit SAIFI, were selectively included in the 5% list.

Worst circuits and the rolling 12-month reliability index values requested are shown in Appendix A.

Section 57.195(e)(4) "Specific remedial efforts taken and planned for the worst performing 5% of the circuits as identified in paragraph (3)."

Remedial efforts taken or planned to date for PECO's worst performing 5% of circuits are shown in Appendix B.

Section 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 included."

| 12 Months Ending September 30, 2006 | | | | | | |
|-------------------------------------|------------------|-----------------------|-------------------------|--------------------------|---------------------|--|
| Cause | Cases of Trouble | % Cases of Trouble | Customer* Interruptions | % Customer Interruptions | Customer Minutes | |
| Animal Contact | 1,298 | 8.9% | 57,694 | 2.6% | 4,176,883 | |
| Contact / Dig In | 287 | 2.0% | 43,999 | 2.0% | 2,971,661 | |
| Equipment Failure | 4,832 | 32.9% | 669,735 | 30.6% | 72,052,158 | |
| Lightning | 1,151 | 7.8% | 212,405 | 9.7% | 31,779,244 | |
| Transmission / Substation | 10 | 0.1% | 31,784 | 1.5% | 3,906,287 | |
| Vegetation - Broken / Uprooted | 2,485 | 16.9% | 561,045 | 25.6% | 97,097,049 | |
| Vegetation - In-growth | 2,198 | 15.0% | 186,120 | 8.5% | 32,115,404 | |
| Vehicles | 375 | 2.6% | 116,982 | 5.3% | 8,897,918 | |
| Unknown | 661 | 4.5% | 123,731 | 5.7% | 10,763,356 | |
| Other | 1,368 | 9.3% | 184,233 | 8.4% | 22,793,561 | |

^{*}The data supplied is the number of interrupted customers for each interruption event summed for all events, also known as customer interruptions. A customer interrupted by three separate trouble cases represents three customer interruptions, but only one customer interrupted.

The largest contributors to customer interruptions were equipment failure and tree-related interruptions. The leading groups within the equipment failure category were aerial equipment and underground equipment. Most customer interruptions caused by trees came from broken branches and tree trunks or uprooted trees (75%), as opposed to ingrowth (25%).

Section 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)."

| Predictive and Preven | ntive Maintena | nce Program | – status as | of 9/30/06 | |
|--|-------------------------------|-------------|-------------|------------|--------------------------|
| | 3 rd Quarter Tasks | | YTD Tasks | | 2006 Total Planned |
| | Planned | Complete | Planned | Complete | |
| Manhole Inspections (Number of manholes inspected) | 915 | 1059 | 2196 | 2379 | 2491 |
| Circuit Patrol & Thermography (Number of circuits inspected) | 220 | 122 | 691 | 877 | 739 |
| Recloser Inspections (Number of reclosers inspected) | 18 | 21 | 244 | 282 | 249 |
| Center City Network Inspections (Number of maintenance tasks performed (e.g. visual inspection, functional testing) | 0 | 0 | 190 | 252 | 318 |
| T&S Maintenance (Number of maintenance tasks performed (e.g. visual inspection, predictive/diagnostic maintenance, preventive maintenance) for a variety of substation components) | 934 | 956 | 2720 | 3094 | 4017 |
| T&S Testing (Number of maintenance tasks performed (e.g. calibration, trip test) | 325 | 283 | 723 | 832 | 1097 |
| Totals | 2412 | 2441 | 6764 | 7716 | 8911 |

| | 3 rd Quarter Miles | | YTD Miles | | 2006 Total Planned |
|---------------------------------------|-------------------------------|----------|-----------|----------|-----------------------|
| | Planned | Complete | Planned | Complete | |
| Distribution Lift and Manual Trimming | 896 | 777 | 2,077 | 2,039 | 2,991_ |
| Transmission Trimming and Removals | 50 | 53 | 140 | 148 | 199 |
| Totals | 946 | 830 | 2,217 | 2,187 | 3,190 |

Section 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.)

| | Budgeted 3 rd Quarter | Actual 3 rd Quarter | Budgeted Year-to-Date | Actual Year-to-Date |
|--------------------------|-------------------------------------|-----------------------------------|--------------------------|------------------------|
| New Business Connections | \$695,353 | \$522,598 | \$2,123,547 | \$1,973,366 |
| Capacity Expansion | \$133,202 | (\$1,848) | \$1,623,736 | \$865,258 |
| System Performance* | \$5,065,437 | \$3,284,805 | \$16,192,762 | \$5,057,891 |
| Facility Relocation | \$570,136 | \$642,213 | \$1,585,210 | \$2,227,242 |
| Maintenance | \$28,690,732 | \$32,951,219 | \$87,369,192 | \$96,245,298 |
| Total** | \$35,154,860 | \$37,398,987 | \$108,894,447 | \$106,369,055 |

See Appendix C for category definitions.

Section 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.)

| | Budgeted 3 rd Quarter | Actual 3 rd Quarter | Budgeted Year-to-Date | Actual Year-to-Date |
|--------------------------|-------------------------------------|-----------------------------------|--------------------------|------------------------|
| New Business Connections | \$15,922,366 | \$11,238,410 | \$49,026,534 | \$39,620,107 |
| Capacity Expansion | \$11,520,099 | \$14,701,219 | \$54,492,060 | \$47,586,934 |
| System Performance | \$10,973,578 | \$3,557,976 | \$27,132,556 | \$12,705,125 |
| Facility Relocation | \$2,755,868 | \$2,319,708 | \$7,625,642 | \$5,362,935 |
| Maintenance | \$13,725,814 | \$14,878,658 | \$40,132,032 | \$50,663,997 |
| Total * | \$54,897,725 | \$46,695,971 | \$178,408,824 | \$155,939,098 |

See Appendix C for category definitions.

Section 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 (e.g., lineman, technician and electrician)."

PECO's full-time trade staff as of October 1st 2006 was as follows:

| Aerial Lineman | 378 |
|--|-----|
| Underground Lineman | 60 |
| Transmission / Substation Mechanics, Operators | 85 |
| Energy Technicians | 94 |
| Aerial Foreman | 55 |
| Underground Foreman | 18 |
| Transmission / Substation Foreman | 30 |
| Total | 720 |

^{*}The anticipated turnover of both aerial and underground mechanics has not been realized; therefore, the second underground line school that was reported to the PUC in the 1st quarter will not be held until 2007.

Contact Persons:

Richard M. Cornforth
Manager, T&D Reliability
(215) 841-5843
richard.cornforth@peco-energy.com

Brian D. Crowe
Director, Rates & Regulatory Affairs
(215) 841-5316
brian.crowe@peco-energy.com

^{*}System Performance YTD includes (\$4,673,974) environmental remediation reserve adjustment made in March 2006.

^{**}Total actual does not include \$34,516,747 and \$41,347,586 of incremental Storm Funds for the 3rd quarter and Year-to-Date, respectively

^{*}Total actual does not include \$7,273,781 and \$8,118,129 of incremental Storm Funds for the 3rd quarter and Year-to-Date, respectively

Appendix A Rolling 12- month reliability index values for 5% worst performing circuits.

| | 12 Month | 12 Month |
|--|---------------------|-----------------------------------|
| | Rolling Customer | Rolling Momentary Customers |
| CIRCUIT ON CIRCUIT SAIFI CAIDI SAIDI MAIFI Interrupted | Hours | Interrupted |
| ANGORA 011 1,103 4.12 52 214 0.00 4,545 | 3,935 | 0 |
| ARDMORE 017 411 0.00 0 0 0.00 0 | 0 | 00 |
| BALA 136 1,583 1.01 6 7 0.00 1,603 | 173 | 0 |
| BERWYN 002 547 7.38 220 1622 3.99 4,037 | 14,786 | 2,180 |
| BLUE-GRASS 137 1,435 1.05 44 46 0.86 1,500 | 1,112 | 1,229 |
| BLUE-GRASS 144 1,460 2.05 87 178 0.83 2,993 | 4,319 | 1,214 |
| BRADFORD 341 1,580 3.56 145 517 3.68 5,622 | 13,609 | 5,821 |
| BRADFORD 342 2,213 3.08 126 387 1.10 6,807 | 14,258 | 2,429 |
| BRADFORD 344 2,435 4.11 181 744 1.42 9,998 | 30,183 | 3,454 |
| BRADFORD 346 1,118 1.48 169 250 0.02 1,652 | 4,659 | 21 |
| BROOMALL 136 1,386 2.71 97 264 0.00 3,757 | 6,093 | 0 |
| BRYN-MAWR 131 1,356 1.50 233 350 0.01 2,032 | 7,903 | 8 |
| BRYN-MAWR 143 663 6.60 96 630 0.00 4,373 | 6,964 | 0 |
| BRYN-MAWR-144 1,240 2.29 130 298 0.97 2,835 | 6,163 | 1,198 |
| BUCKINGHAM 344 1,477 2.10 108 227 2.30 3,108 | 5.587 | 3,396 |
| BUCKINGHAM-351 1,265 2.70 125 337 0.48 3,420 | 7,104 | 606 |
| BUCKINGHAM 354 1,329 0.02 173 4 0.00 33 | 95 | 0 |
| BYBERRY 143 1,976 0.95 145 138 0.00 1,874 | 4,530 | |
| CALLOWHILL 138 1,266 0.06 1406 85 0.00 77 | 1,804 | 0 |
| | 630 | 0 |
| | | 0 |
| | 1,903 | |
| | 17,623 | 0 |
| | 3,805 | 0 |
| CORNOG 001 531 2.59 295 765 6.00 1,375 | 6,769 | 3,185 |
| CRESCENTVILLE 134 1,822 1.45 85 123 0.05 2,641 | 3,737 | 84 |
| CRUM LYNNE 138 1,743 3.30 61 203 1.32 5,758 | 5,886 | 2,309 |
| DAVISVILLE 003 948 2.61 103 268 5.92 2,476 | 4,239 | 5,615 |
| | 2,242 | 1,101 |
| | 18,072 | 2,276 |
| | 8,316 | 811 |
| | 28,362 | 0 |
| | 15,213 | 1,227 |
| | 16,492 | 685 |
| | 8,973 | 1,831 |
| FOULK 142 340 2.94 45 132 0.00 999 | 746 | 0 |
| | 7,885 | 545 |
| | 5,130 | 307 |
| HARMONY 007 1,271 1.20 97 117 1.00 1,527 | 2,470 | 1,271 |
| | 7,664 | 933 |
| | 1,963 | 0 |
| HOPEWELL 000 283 1.04 115 119 0.00 293 | 563 | 0 |
| | 10,301 | 1,542 |
| HUNTING PARK 032 1,313 0.09 16 1 0.06 117 | 31 | 83 |
| | 5,164 | 0 |
| ISLAND ROAD 138 2,320 0.81 52 42 0.01 1,888 1 | 1,623 | 32 |
| JENKINTOWN 138 1,877 0.16 81 13 0.03 295 | 401 | 49 |
| JENKINTOWN 141 678 2.41 125 301 0.00 1,637 3 | 3,399 | 0 |
| JENKINTOWN 143 1,682 4.28 87 373 0.49 7,199 1 | 10,445 | 823 |
| | 6,186 | 823 |
| ENAPE 341 977 3.98 112 446 5.79 3,885 7 | 7,266 | 5,656 |

| CIRCUIT | CUSTOMERS ON CIRCUIT | 12 Month Rolling Circuit SAJFI | 12 Month Rolling Circuit CAIDI | 12 Month Rolling Circuit SAIDI | 12 Month Rolling Circuit MAIFI | 12 Month Rolling Customers Interrupted | 12 Month Rolling Customer Hours | 12 Month Rolling Momentary Customers Interrupted |
|-------------------|-------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---|--|--|
| | | | | | | | | |
| LINE 109 00 | 421 | 3.62 | 140 | 508 | 1.00 | 1,526 | 3,564 | 420 |
| LINE 131 00WO | 336 | 1.95 | 58 | 112 | 2.95 | 656 | 629 | 991 |
| LINE 145 00UP | 171 | 6.01 | 216 | 1297 | 4.00 | 1,027 | 3,695 | 684 |
| LINE 147 00PB | 890 | 3.22 | 56 | 182 | 0.00 | 2,868 | 2,701 | 0 |
| LINE 2241 | 1,329 | 2.57 | 63 | 163 | 0.00 | 3,416 | 3,614 | 0 |
| LINE 2394 | 1,797 | 2.13 | 75 | 159 | 0.00 | 3,827 | 4,765 | 1 |
| LINE 2445 | 473 | 3.01 | 58 | 175 | 0.00 | 1,423 | 1,381 | 0 |
| LINE 2471 | 1,108 | 1.96 | 100 | 196 | 0.09 | 2,176 | 3,625 | 96 |
| LINE 2682 | 1,688 | 0.16 | 163 | 27 | 0.00 | 276 | 748 | 0 |
| LINE 300CR | 2,141 | 7.67 | 107 | 821 | 0.00 | 16,422 | 29,306 | 2 |
| LINE 3336 | 1 | 0.00 | 0 | 0 | 0.00 | 0 | 0 | 0 |
| LINE 3340 | 934 | 2.54 | 214 | 544 | 0.97 | 2,369 | 8,461 | 902 |
| LINE 3600CR | 865 | 2.65 | 211 | 559 | 0.11 | 2,294 | 8,054 | 97 |
| LINE 7900 | 00 | 0.00 | 41 | 0 | 0.00 | 2 | 1 | 0 |
| LINTON 343 | 4,133 | 0.07 | 353 | 26 | 0.00 | 308 | 1,811 | 0 |
| LINTON 352 | 3,341 | 1.30 | 148 | 194 | 0.68 | 4,360 | 10,783 | 2,274 |
| LLANERCH 141 | 1,650 | 1.81 | 69 | 126 | 4.84 | 2,992 | 3,454 | 7,991 |
| LLANERCH 147 | 2,331 | 1.35 | 305 | 413 | 0.05 | 3,155 | 16,061 | 127 |
| LOMBARD 132 | 3,286 | 0.53 | 84 | 44 | 1.74 | 1,743 | 2,437 | 5,710 |
| LOMBARD 133 | 2,658 | 0.14 | 209 | 29 | 0.00 | 372 | 1,296 | 0 |
| LOMBARD 138 | 2,526 | 2.66 | 25 | 67 | 0.52 | 6,723 | 2,816 | 1,319 |
| MACDADE 132 | 1,634 | 1.22 | 88 | 108 | 0.00 | 1,996 | 2,932 | 0 |
| MACDADE 135 | 2,248 | 1.15 | 79 | 90 | 1.00 | 2,587 | 3,390 | 2,237 |
| MACDADE 148 | 1,584 | 2.34 | 62 | 146 | 0.00 | 3,708 | 3,841 | 0 |
| MARCUS HOOK 135 | 3 | 3.00 | 90 | 271 | 0.00 | 9 | 14 | 0 |
| MARSHALLTON 002 | 517 | 4.12 | 430 | 1770 | 0.99 | 2,129 | 15,251 | 511 |
| MATSON 131 | 847 | 7.21 | 155 | 1121 | 1.09 | 6,107 | 15,823 | 920 |
| MOSER 342 | 2,538 | 2.76 | 95 | 262 | 1.67 | 7,015 | 11,067 | 4,231 |
| NESHAMINY 142 | 1,426 | 1.64 | 133 | 218 | 0.84 | 2,339 | 5,174 | 1,201 |
| NEWLINVILLE 343 | 2,034 | 8.45 | 100 | 841 | 1.93 | 17,178 | 28,526 | 3,926 |
| NEWLINVILLE 346 | 755 | 1.63 | 205 | 334 | 4.00 | 1,233 | 4,203 | 3,020 |
| NEWLINVILLE 351 | 1,102 | 1.97 | 151 | 299 | 0.94 | 2,175 | 5,489 | 1,034 |
| NEWLINVILLE 353 | 2,101 | 6.68 | 82 | 546 | 6.04 | 14,041 | 19,103 | 12,680 |
| NEWLINVILLE 354 | 2,574 | 5.27 | 197 | 1039 | 3.53 | 13,565 | 44,584 | 9,075 |
| NORTH PHILADE 133 | 3,042 | 1.49 | 87 | 130 | 0.00 | 4,527 | 6,573_ | 0 |
| NORTH PHILADE 135 | 2,021 | 0.66 | 159 | 105 | 1.00 | 1,339 | 3,545 | 2,023 |
| NORTH WALES 362 | 1,751 | 1.77 | 151 | 267 | 3.62 | 3,104 | 7,795 | 6,347 |
| OVERBROOK 131 | 3,633 | 0.55 | 12 | 7 | 0.60 | 1,992 | 410 | 2,182 |
| PENCOYD 014 | 1,359 | 3.00 | 90 | 269 | 1.00 | 4,071 | 6,091 | 1,358 |
| PLYMOUTH 139 | 1,332 | 2.63 | 91 | 240 | 2.46 | 3,509 | 5,320 | 3,274 |
| PULASKI 131 | 4,619 | 1.05 | 53 | 56 | 0.94 | 4,845 | 4,287 | 4,335 |
| PULASKI 132 | 2,195 | 0.59 | 44 | 26 | 0.48 | 1,303 | 953 | 1,053 |
| RICHMOND 138 | 1,322 | 3.44 | 42 | 146 | 0.00 | 4,545 | 3,212 | 0 |
| RICHMOND 145 | 899 | 2.01 | 53 | 107 | 0.00 | 1,810 | 1,610 | 0 |
| ROXBOROUGH 136 | 972 | 3.86 | 84 | 325 | 1.00 | 3,755 | 5,270 | 973 |
| SAVILLE 132 | 2,483 | 1.19 | 164 | 196 | 0.00 | 2,963 | 8,102 | 0 |
| SHEEDER 000 | 435 | 9.57 | 81 | 772 | 0.00 | 4,161 | 5,599 | 1 |
| SOLEBURY 001 | 496 | 8.81 | 97 | 854 | 0.00 | 4,368 | 7,058 | 2 |
| TABOR 136 | 2,716 | 1.60 | 40 | 64 | 0.48 | 4,334 | 2,885 | 1,305 |
| UPPER DARBY 008 | 797 | 2.20 | 207 | 454 | 0.00 | 1,750 | 6,026 | 0 |
| UPPER DARBY 134 | 2,060 | 2.58 | 60 | 156 | 1.08 | 5,314 | 5,353 | 2,227 |
| UPPER DARBY 140 | 1,903 | 1,45 | 71 | 103 | 0.00 | 2,766 | 3,261 | 0 |

| CIRCUIT | CUSTOMERS ON CIRCUIT | 12 Month Rolling Circuit SAIFI | 12 Month Rolling Circuit CAIDI | 12 Month Rolling Circuit SAIDI | 12 Month Rolling Circuit MAIFI | 12 Month Rolling Customers Interrupted | 12 Month Rolling Customer Hours | 12 Month Rolling Momentary Customers Interrupted |
|------------------|-------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---|--|--|
| UPPER MERION 132 | 1,288 | 2.00 | 234 | 468 | 0.01 | 2,576 | 10,045 | 7 |
| UPPER MERION 351 | 2,687 | 3.69 | 190 | 701 | 1.16 | 9,926 | 31,378 | 3,122 |
| WANEETA 139 | 1,550 | 0.22 | 58 | 12 | 0.00 | 335 | 323 | 0 |
| WARMINSTER 141 | 1,713 | 2.79 | 58 | 162 | 0.00 | 4,773 | 4,620 | o |
| WARRINGTON 342 | 3,535 | 0.24 | 230 | 56 | 1.93 | 856 | 3,286 | 6,807 |
| WARRINGTON 343 | 2,106 | 1.09 | 128 | 140 | 0.65 | 2,293 | 4,911 | 1,360 |
| WAYNE 134 | 716 | 5.33 | 161 | 857 | 2.43 | 3,817 | 10,229 | 1,740 |
| WAYNE 146 | 1,042 | 8.52 | 210 | 1786 | 0.99 | 8,880 | 31,014 | 1,032 |
| WEST GROVE 001 | 819 | 5.15 | 69 | 356 | 0.00 | 4,216 | 4,855 | 0 |
| WHITEMARSH 142 | 918 | 1.32 | 191 | 253 | 0.01 | 1,215 | 3,871 | 12 |

^{*}The data supplied is the number of interrupted customers for each interruption event summed for all events, also known as customer interruptions. If a customer is interrupted by three separate trouble cases, they represent three customer interruptions, but only one customer interrupted.

Appendix B Remedial efforts taken and planned for 5% worst performing circuits as of 9/31/06 ANGORA 011 Completed Inspected circuit visually and with thermographic Perform regularly scheduled tree clearance camera Completed reliability corrective workorders Inspected selected areas of circuit for vegetation issues and corrected as needed Installed wildlife protection Installed additional fuses ARDMORE 017 Completed Planned Install faulted circuit indicators **BALA 136** Completed Planned Completed reliability corrective workorders Perform regularly scheduled tree clearance Installed 3-phase recloser **BERWYN 002 Planned** Completed Inspected circuit visually and with thermographic Perform regularly scheduled tree clearance camera Upgraded fusing Remediate supply circuit **BLUE GRASS 137** Completed **Planned** Completed reliability corrective workorders Replaced cable **BLUE GRASS 144** Completed Planned Completed reliability corrective workorders Replaced underground cable Installed additional fuses **BRADFORD 341** Completed Planned Inspected/maintained reclosers Equip breakers for automatic switching Completed reliability corrective workorders Inspected circuit visually and with thermographic camera **3RADFORD 342** Completed Planned Completed reliability corrective workorders Upgrade lightning protection Inspected circuit visually and with thermographic camera Repaired recloser Replaced transformers 3RADFORD 344 Completed Planned Completed reliability corrective workorders Inspected circuit visually and with thermographic camera Replaced cable Inspected selected areas of circuit for vegetation issues and corrected as needed Completed Planned **IRADFORD 346** Installed 3 phase recloser Installed additional fuses

Repaired switches

Completed reliability corrective workorders

| BROOMALL 136 | Completed | Planned |
|---------------|---|--|
| | Completed reliability corrective workorders | |
| • | Installed 3-phase reclosers | |
| | Installed single phase reclosers | |
| | Inspected selected areas of circuit for vegetation | 1 |
| | issues and corrected as needed | <u> </u> |
| BRYN MAWR 131 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Completed reliability corrective workorders | |
| | Installed wildlife protection | |
| | Installed single phase reclosers | |
| BRYN MAWR 143 | Completed | Planned |
| | Replaced recloser | Complete reliability corrective workorders |
| | Inspected circuit visually and with thermographic camera | |
| | Installed additional phases | |
| _ | Replaced cable | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| RYN MAWR 144 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Inspected/repaired recloser operation | |
| | Inspected motor operated switch | |
| | Installed faulted circuit indicators | |
| UCKINGHAM 344 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | Complete reliability corrective workorders |
| | Inspected/repaired recloser operation | |
| UCKINGHAM 351 | Completed | Planned |
| | Inspected/repaired recloser operation | |
| | Completed reliability corrective workorders | |
| | Inspected selected areas of circuit for vegetation | |
| | issues and corrected as needed | |
| | Inspected circuit visually and with thermographic camera | |
| - | Replaced recloser | |
| UCKINGHAM 354 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | |
| | Inspected selected areas of circuit for vegetation | |
| | issues and corrected as needed | |
| | Performed scheduled recloser maintenance | |
| | Installed single phase recloser | |
| | | |
| | | · · · · · · · · · · · · · · · · · · · |

| BYBERRY 143 | Completed | Planned |
|------------------|---|--|
| | Completed reliability corrective workorders | |
| CALLOWHILL 138 | Completed | Planned |
| | Completed reliability corrective workorders | Perform regularly scheduled tree clearance |
| | Inspected circuit visually and with thermographic camera | |
| CALLOWHILL 142 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | Perform regularly scheduled tree clearance |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Completed reliability corrective workorders | |
| | Upgraded switches | |
| CEDARBROOK 132 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | |
| | Completed regularly scheduled tree clearance | |
| | Replaced underground cable | |
| | Completed reliability corrective workorders | |
| CEDARBROOK 138 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Replaced transformer | |
| | Inspected circuit visually and with thermographic camera | |
| | Inspected/maintained reclosers | |
| | Completed regularly scheduled tree clearance | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| CHICHESTER 139 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | |
| | Upgraded switches | |
| CORNOG 001 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | |
| | Completed reliability corrective workorders | |
| - | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| RESCENTVILLE 134 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Inspected circuit visually and with thermographic camera | |
| | Completed regularly scheduled tree trimming | |
| | Installed additional fuses | |
| | Installed 3-phase recloser | |
| | Installed single phase reclosers | |

| Completed | Planned |
|---|--|
| Inspected selected areas of circuit for vegetation | |
| issues and corrected as needed | |
| Inspected/maintained reclosers | |
| Completed reliability corrective workorders | |
| Installed single phase reclosers | |
| Completed | Planned |
| Completed reliability corrective workorders | |
| Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| Performed regularly scheduled tree clearance | |
| Completed | Planned |
| Inspected circuit visually and with thermographic camera | |
| Completed reliability corrective workorders | |
| Completed | Planned |
| Installed wildlife protection | |
| Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| Completed reliability corrective workorders | |
| | |
| | Planned |
| Inspected circuit visually and with thermographic | |
| <u> </u> | |
| | |
| | |
| | |
| | , |
| | Planned |
| | Complete reliability corrective workorders |
| | Install single-phase reclosers |
| Inspected circuit visually and with thermographic camera | |
| Installed 3 phase reclosers | |
| Inspected selected areas of circuit for vegetation | |
| - | Planned |
| | T tallitou |
| | |
| · · · · · · · · · · · · · · · · · · · | |
| Inspected circuit visually and with thermographic | |
| Installed wildlife protection | |
| Performed regularly scheduled tree clearance | |
| | |
| Installed three phase recloser | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed Inspected/maintained reclosers Completed reliability corrective workorders Installed single phase reclosers Completed Completed reliability corrective workorders Inspected selected areas of circuit for vegetation issues and corrected as needed Performed regularly scheduled tree clearance Completed Inspected circuit visually and with thermographic camera Completed reliability corrective workorders Completed vegetation Inspected selected areas of circuit for vegetation issues and corrected as needed Completed reliability corrective workorders Upgraded fuses Completed Inspected circuit visually and with thermographic camera Inspected selected areas of circuit for vegetation issues and corrected as needed Completed reliability corrective workorders Performed regularly scheduled tree clearance Installed 3 phase reclosers Completed Completed reliability corrective workorders Completed regularly scheduled tree clearance Inspected circuit visually and with thermographic camera Installed 3 phase reclosers Inspected selected areas of circuit for vegetation issues and corrected as needed Completed regularly scheduled tree clearance Inspected selected areas of circuit for vegetation issues and corrected as needed Completed Completed reliability corrective workorders Inspected selected areas of circuit for vegetation issues and corrected as needed Inspected circuit visually and with thermographic camera Installed wildlife protection |

| FLINT 146 | Completed | Planned |
|----------------|---|--|
| | Completed reliability corrective workorders | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Inspected circuit visually and with thermographic camera | |
| | Installed wildlife protection | |
| | Performed regularly scheduled tree clearance | |
| | Inspected/maintained reclosers | |
| | Upgraded lightning protection | |
| FOULK 131 | Completed | Planned |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | Install 3-phase reclosers |
| | | Install switch |
| | | Complete reliability corrective workorders |
| FOULK 142 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | |
| | Completed reliability corrective workorders | |
| FURNACE 000 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | Install single-phase reclosers |
| | Performed regularly scheduled tree clearance | |
| | Installed new supply circuit | |
| | Completed reliability corrective workorders | |
| HAGYS 004 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | Upgrade fusing |
| | Completed reliability corrective workorders | Complete reliability corrective workorders |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | Perform regularly scheduled tree clearance |
| HARMONY 007 | Completed | Planned |
| iAidiioiti ooi | Completed reliability corrective workorders | 1 Idialou |
| | Inspected circuit visually and with thermographic camera | |
| | Remediated supply circuit | |
| IEATON 131 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | Perform regularly scheduled tree clearance |
| | Upgraded switches | |
| | Completed reliability corrective workorders | |
| | Installed additional fuses | |
| | | |

| HEATON 133 | Completed | Planned |
|------------------|--|---|
| | Inspected circuit visually and with thermographic camera | |
| | Installed single phase reclosers | |
| | Inspected/maintained reclosers | |
| | Performed regularly scheduled tree clearance | |
| | Inspected selected areas of circuit for vegetation | |
| <u> </u> | issues and corrected as needed | |
| | Completed reliability corrective workorders | |
| HOPEWELL 000 | Completed | Planned |
| | Remediated supply circuit | |
| <u> </u> | Completed reliability corrective workorders | |
| | Inspected circuit visually and with thermographic camera | |
| HOWELL 002 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Inspected selected areas of circuit for vegetation | |
| | issues and corrected as needed | |
| | Performed regularly scheduled tree clearance | |
| | Remediated supply circuit | · · · · · · · · · · · · · · · · · · · |
| | Inspected circuit visually and with thermographic | |
| | camera | |
| HUNTING PARK 032 | Completed | Planned |
| | Inspected selected areas of circuit for vegetation | |
| _ | issues and corrected as needed | |
| | Inspected circuit visually and with thermographic camera | |
| | Completed reliability corrective workorders | |
| SLAND ROAD 136 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | |
| | Installed underground cable | • |
| | Completed reliability corrective workorders | |
| | Inspected selected areas of circuit for vegetation | |
| | issues and corrected as needed | |
| | Installed additional fuses | |
| SLAND ROAD 138 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Inspected selected areas of circuit for vegetation | |
| | issues and corrected as needed | |
| | Inspected circuit visually and with thermographic camera | |
| | Installed additional fusing | |
| | Installed wildlife protection | |
| | | |
| | | |

| JENKINTOWN 138 | Completed | Planned |
|----------------|---|--|
| | Completed reliability corrective workorders | |
| | Installed single phase recloser | |
| | | - |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | n |
| - | | |
| JENKINTOWN 141 | Completed regularly scheduled tree clearance Completed | Planned |
| PERKINIOWN 141 | Replaced cable | Complete reliability corrective workorden |
| | Installed additional fuses | Complete reliability corrective workdider |
| | Inspected circuit visually and with thermographic | |
| | camera | |
| | Completed regularly scheduled tree clearance | |
| | Inspected selected areas of circuit for vegetation | 1 |
| | issues and corrected as needed | |
| ENKINTOWN 143 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Installed single phase recloser | |
| | Completed regularly scheduled tree clearance | |
| ANE 001 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Remediated supply circuit | |
| ENAPE 341 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Inspected circuit visually and with thermographic camera | |
| | Inspected/repaired reclosers | |
| | Completed regularly scheduled tree clearance | |
| | Upgraded wildlife protection | |
| NE 109 00 | Completed | Planned Planned |
| | Inspected circuit visually and with thermographic camera | |
| | Installed wildlife protection | |
| <u></u> | Completed reliability corrective workorders | |
| NE 131 00WO | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | |
| | Completed reliability corrective workorders | |
| | Completed recloser inspections | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| NE 145 00UP | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | Repair switch |
| | Performed regularly scheduled tree clearance | Complete reliability corrective workorders |
| | Upgraded fusing | |
| | | |

| LINE 147 00PB | Completed | Planned |
|---------------|---|--|
| | Inspected/repaired reclosers | Repair switches |
| | Completed reliability corrective workorders | Complete reliability corrective workorders |
| | Inspected circuit visually and with thermographic camera | C |
| | Improved recloser grounding | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | 1 |
| LINE 2241 | Completed | Planned |
| | Completed reliability corrective workorders | Perform regularly scheduled tree clearance |
| | Inspected circuit visually and with thermographic camera | |
| | Installed wildlife protection | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Installed faulted circuit indicators | |
| | Upgraded lightning protection | |
| LINE 2394 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Upgraded fusing | |
| | Installed additional fuses | |
| ·- | Installed wildlife protection | |
| LINE 2445 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | Install automatic transfer switches |
| LINE 2471 | Completed | Planned |
| | Repaired underground cable | |
| | Upgraded transformer | |
| LINE 2682 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | Perform regularly scheduled tree clearance |
| | Completed reliability corrective workorders | |
| | Upgraded fuses | <u>.</u> - |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| INE 300CR | Completed | Planned |
| INE SOOK | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Installed 3-phase recloser | - |
| INE 3336 | Completed | Planned |
| | Replaced switch | |
| | Inspected circuit visually and with thermographic camera | Install 3-phase reclosers |
| | Completed reliability corrective workorders | |
| | | |

| LINE 3340 | Completed | Planned |
|--------------|--|--|
| | Completed reliability corrective workorders | |
| | Inspected selected areas of circuit for vegetation | 1 |
| | issues and corrected as needed | |
| | Inspected /repaired switch | |
| | Inspected recloser | |
| LINE 3600CR | Completed | Planned |
| | Inspected selected areas of circuit for vegetation | Perform regularly scheduled tree clearance |
| | issues and corrected as needed | |
| | Installed additional fuses | |
| | Completed reliability corrective workorders | |
| | Install single phase recloser | |
| LINE 7900 | Completed | Planned |
| | Completed reliability corrective workorders | |
| LINTON 343 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Inspected selected areas of circuit for vegetation | |
| | issues and corrected as needed | |
| | Inspected/ repaired recloser operation | |
| | Replaced cable | |
| | Replaced recloser | |
| LINTON 352 | Completed | Planned |
| | Completed reliability corrective workorders | Complete reliability corrective workorders |
| | Inspected circuit visually and with thermographic | |
| | camera | |
| | Replaced recloser | |
| | Repaired cable | |
| | Replaced transformer | |
| | Inspected selected areas of circuit for vegetation | |
| | issues and corrected as needed | |
| LANERCH 141 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Installed single phase recloser | |
| | Upgraded wildlife protection | |
| | Installed additional fuses | ·· |
| | Inspected circuit visually and with thermographic camera | |
| LANERCH 147 | Completed | Planned |
| | Completed reliability corrective workorders | |
| OMBARD 132 | Completed | Planned |
| <u> </u> | Upgraded switch | Perform regularly scheduled tree clearance |
| | Installed additional fuses | |
| | Completed reliability corrective workorders | |
| | Inspected circuit visually and with thermographic | |
| | camera | |
| - | Inspected selected areas of circuit for vegetation | |
| | issues and corrected as needed | |
| | | |

| LOMBARD 133 | Completed | Planned |
|-----------------|---|--|
| | Inspected selected areas of circuit for vegetation | Perform regularly scheduled tree clearance |
| , | issues and corrected as needed | |
| | Upgraded transformer | |
| | Replaced cable | |
| | Inspected circuit visually and with thermographic camera | |
| | Installed additional fuses | |
| | Completed reliability corrective workorders | |
| | Inspected reclosers | |
| LOMBARD 138 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | Perform regularly scheduled tree clearance |
| | Upgraded switches | |
| | Completed reliability corrective workorders | |
| | Replaced underground cable | |
| MACDADE 132 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Performed regularly scheduled tree clearance | |
| MACDADE 135 | Completed | Planned |
| | Upgraded wildlife protection | |
| | Inspected circuit visually and with thermographic camera | |
| | Replaced transformer | |
| | Completed regularly scheduled tree clearance | |
| MACDADE 148 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | Install single phase reclosers |
| | Performed regularly scheduled tree clearance | Complete reliability corrective workorders |
| | Upgraded wildlife protection | |
| MARCUS HOOK 135 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | |
| | Completed reliability corrective workorders | |
| | Tested customer relays | |
| MARSHALLTON 002 | Completed | Planned |
| | Remediated supply circuit | Inspect/repair breaker control |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Inspected circuit visually and with thermographic camera | |
| | Completed reliability corrective workorders | |
| | | |
| | | |

| MATSON 131 | Completed | Planned |
|-----------------|---|--|
| | Completed reliability corrective workorders | Complete reliability corrective workorders |
| | Replaced primary wires | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Upgraded wildlife protection | |
| - | Installed 3-phase reclosers | |
| MOSER 342 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Inspected/tested reclosers | |
| · · · · | Inspected/repaired switches | |
| | Repaired reclosers | _ |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Installed 3 phase recloser | |
| NESHAMINY 142 | Completed | Planned |
| | | Install switches |
| NEWLINVILLE 343 | Completed | Planned |
| | | Install 3-phase recloser |
| | Inspected circuit visually and with thermographic camera | Complete reliability corrective workorders |
| NEWLINVILLE 346 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | Complete reliability corrective workorders |
| | | Install 3-phase recloser |
| NEWLINVILLE 351 | Completed | Planned |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | , tallieu |
| | Completed reliability corrective workorders | |
| NEWLINVILLE 353 | Completed | Planned |
| | Replaced three-phase recloser | |
| | Completed reliability corrective workorders | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| IEWLINVILLE 354 | Completed | Planned |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Inspected circuit visually and with thermographic camera | |
| | Upgraded transformers | |
| | | |

| NORTH PHILADELPHIA | Completed | Planned |
|---------------------------------------|--|---|
| J | Completed reliability corrective workorders | |
| | Inspected circuit visually and with thermographic camera | |
| _ | Inspected/tested reclosers | |
| | Inspected/repaired switch | |
| NORTH PHILADELPHIA 135 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Inspected circuit visually and with thermographic camera | |
| | Inspected/repaired reclosers | |
| · · · · · · · · · · · · · · · · · · · | Installed switch | |
| NORTH WALES 362 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | Complete reliability corrective workorders |
| | Repaired switch | |
| | Upgraded lightning protection | |
| | Completed reliability corrective workorders | |
| | Replaced reclosers | |
| OVERBROOK 131 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Inspected circuit visually and with thermographic camera | |
| , | Automated switching of recloser | |
| PENCOYD 014 | Completed | Planned |
| | nspected circuit visually and with thermographic camera | Inspect selected areas of circuit for vegetation issues and correct as needed |
| | | Perform regularly scheduled tree clearance |
| | | Replace underground cable |
| | nstalled faulted circuit indicators | |
| PLYMOUTH 139 | Completed | Planned |
| | nspected/tested reclosers | Perform regularly scheduled tree clearance |
| | Completed reliability corrective workorders | |
| | Jpgraded wildlife protection | |
| | Jpgraded lightning protection | |
| PULASKI 131 | Completed | Planned |
| | Completed reliability corrective workorders | Perform regularly scheduled tree clearance |
| | nspected circuit visually and with thermographic amera | |
| f | nspected selected areas of circuit for vegetation such as such as needed | |
| ļı | nspected/tested reclosers | |
| | | |

| PULASKI 132 | Completed | Planned Planned |
|----------------|---|---|
| 1 | Completed reliability corrective workorders | Perform regularly scheduled tree clearance |
| 7 | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Upgraded fusing | |
| RICHMOND 138 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | Inspect selected areas of circuit for vegetation issues and correct as needed |
| | Completed reliability corrective workorders | Complete reliability corrective workorders |
| | | Upgrade fusing |
| RICHMOND 145 | Completed | Planned |
| | Upgraded switches | |
| | Completed reliability corrective workorders | |
| | Completed regularly scheduled tree trimming | |
| | Inspected circuit visually and with thermographic camera | |
| | Installed additional fuses | |
| ROXBOROUGH 136 | Completed | Planned |
| - | Completed reliability corrective workorders | Perform regularly scheduled tree clearance |
| | Inspected circuit visually and with thermographic camera | |
| | Upgraded switches | |
| SAVILLE 132 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Installed three-phase reclosers | |
| · | Completed reliability corrective workorders | |
| SHEEDER 000 | Completed | Planned |
| | Remediated supply circuit | |
| | Inspected circuit visually and with thermographic camera | |
| | Performed regularly scheduled tree clearance | |
| | Installed additional fuses | |
| | Completed reliability corrective workorders | |
| SOLEBURY 001 | Completed | Planned |
| | Inspected circuit visually and with thermographic C camera | Complete reliability corrective workorders |
| | Completed reliability corrective workorders | |
| | Installed switch | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| ABOR 136 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Inspected/tested recloser | |
| | Installed wildlife protection | |
| | Upgraded switches | |
| | <u> </u> | |

| | Completed | Planned |
|--------------------|---|---|
| UPPER DARBY 008 | Completed reliability corrective workorders | Complete reliability corrective workorde |
| | Inspected circuit visually and with thermographic camera | |
| | Installed additional fuses | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| UPPER DARBY 134 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Installed single phase recloser | |
| | Upgraded fuses | |
| | Inspected/tested recloser | |
| | Inspected selected areas of circuit for vegetation | |
| | issues and corrected as needed | |
| JPPER DARBY 140 | Completed | Planned |
| | Inspected circuit visually and with thermographic camera | |
| | Installed three-phase reclosers | <u></u> |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Completed reliability corrective workorders | |
| PPER MERION 132 | Completed | Planned |
| | Inspected/maintained reclosers | Install 3-phase recloser |
| | Installed single phase recloser | |
| | Installed additional fuses | |
| | Installed wildlife protection | |
| | Completed reliability corrective workorders | |
| | Performed regularly scheduled tree clearance | |
| PPER MERION 351 | Completed | Planned |
| T CIT INCITION OOT | Replaced load center | 1 10011100 |
| | Inspected circuit visually and with thermographic camera | |
| | Replaced switching module | |
| | Completed reliability corrective workorders | |
| | Performed regularly scheduled tree clearance | |
| ANEETA 139 | Completed | Planned |
| _ | Inspected circuit visually and with thermographic camera | |
| | Completed reliability corrective workorders | |
| | Installed additional fuses | |
| ARMINSTER 141 | Completed | Planned |
| | , , , , , , , , , , , , , , , , , , , | Inspect selected areas of circuit for vegetation issues and correct as needed |
| | | Upgrade lightning protection |
| | | Complete reliability corrective workorders |

| WARRINGTON 342 | Completed | Planned |
|-----------------------|---|--|
| | Completed reliability corrective workorders | |
| | Inspected circuit visually and with thermographic camera | c |
| | Inspected/maintained reclosers | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Upgraded lightning protection | |
| WARRINGTON 343 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Inspected circuit visually and with thermographic camera | |
| | Inspected/tested reclosers | |
| | Upgraded lightning protection | |
| WAYNE 134 | Completed | Planned |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| | Installed 3-phase reclosers | |
| _ | Installed single phase reclosers | |
| | Completed reliability corrective workorders | |
| | Upgraded fusing | |
| | Installed aerial faulted circuit indicators | |
| | Completed regularly scheduled tree clearance | |
| WAYNE 146 | Completed | Planned |
| | Completed regularly scheduled tree clearance | |
| <u> </u> | Completed reliability corrective workorders | |
| | Installed single phase recloser | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| WEST GROVE 001 | Completed | Planned |
| | Completed reliability corrective workorders | |
| | Inspected selected areas of circuit for vegetation issues and corrected as needed | |
| VHITEMARSH 142 | Completed | Planned |
| | | Complete reliability corrective workorders |
| | Inspected circuit visually and with thermographic camera | |
| <u> </u> | Upgraded switches | |

Appendix C

New Business Connections

This work category includes all the facility work required to add a new customer or to increase the load to an existing customer. The facility work will include the facilities required to directly connect the customer to the system and the upgrade/replacement of any existing facility to serve the requested additional load.

Capacity Expansion

This work category includes only capacity work generated by the system design engineer to prevent system failure and to assure the delivery of voltage as specified in the tariff. The addition of new substations and substation enlargements for future load growth will also be included in this project.

System Performance

This work category includes projects designed to upgrade, modify or improve the performance of the distribution system. Also included in this category are indirect costs in support of all categories and one-time accounting adjustment items.

Facility Relocation

This work category includes all requests for relocation of PECO facilities including municipal as well as customer related relocation requests.

Maintenance

This work category includes work performed to repair and restore equipment to its normal state of operation, along with planned preventive maintenance work such as visual and thermographic inspections and tree trimming around transmission and distribution lines.

Storm Fund

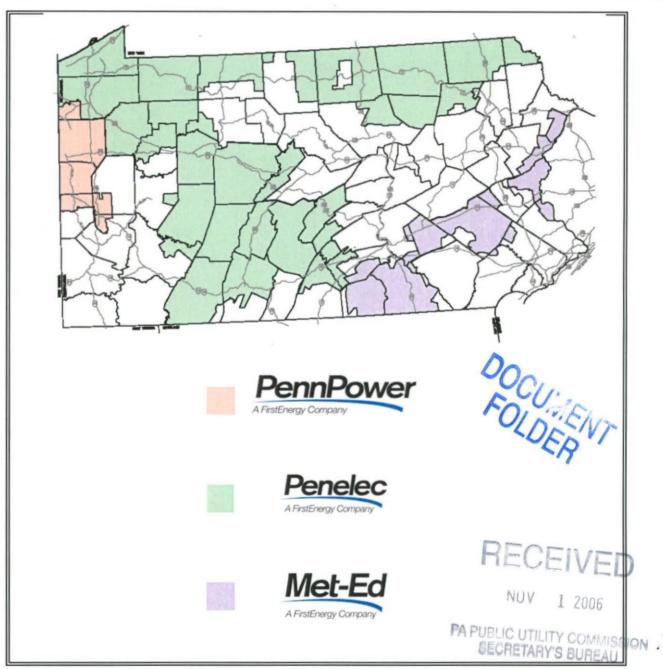
Incremental costs (primarily overtime, contractors, mutual assistance, and meals) incurred while responding to major storms (storms that meet customer outage and duration criteria).

FirstEnergy,

L-00030161

Joint 3rd Quarter 2006 Service Reliability Report –
Pennsylvania Power Company,
Pennsylvania Electric Company, and
Metropolitan Edison Company
Pursuant to 52 PA Code §57.195(e)









76 South Main Street Akron, Ohio 44308

November 1, 2006

James J. McNulty, Secretary Pennsylvania Public Utility Commission P.O. Box 3265 Harrisburg, PA 17120

Re: Joint 3rd Quarter 2006 Reliability Report - Pennsylvania Power Company, Pennsylvania Electric Company, and Metropolitan Edison Company pursuant to 52 PA Code §57.195(e)

Dear Secretary McNulty:

Enclosed for filing on behalf of the Pennsylvania Power Company, Pennsylvania Electric Company, and Metropolitan Edison Company (collectively, "Companies") are an original and six (6) copies of its Joint 3rd Quarter 2006 Reliability Report – Public Version.

On December 22, 2004, the Companies filed an Application for Protective Order at Docket No. L-000301061. The Application was granted, allowing the Companies to file a proprietary version of the quarterly reliability report. The Proprietary Version of this report is being filed under a separate letter.

Sincerely, Euc Dickson/sl

Eric Dickson

Director, Operations Services

Enclosures

RECEIVED

NOV 1 2006

PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

Joint 3rd Quarter 2006 Service Reliability Report – Pennsylvania Power Company, Pennsylvania Electric Company and Metropolitan Edison Company

The following Joint Report is filed on behalf of Pennsylvania Power Company ("Penn Power"), Pennsylvania Electric Company ("Penelec"), and Metropolitan Edison Company ("Met-Ed"), collectively referred to as the Companies for the period ending third quarter 2006.

For purposes of this Joint Report, all reliability reporting is based upon the Pennsylvania Public Utility Commission's definitions for momentary outages and major events pursuant to 52 PA Code § 57.192.

<u>Section 57.195(e)(1):</u> 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.

Major Events

On September 12 and 29, 2006, Met-Ed submitted formal Request(s) for Exclusion of Major Outage for Reliability Reporting Purposes to the Pennsylvania Public Utility Commission. The following table provides a summary of the information with respect to these events:

| FirstEnergy Company | Customers Affected | Major Event | | Customer Minutes | Description | Commission Approval Status | |
|------------------------|-----------------------|-----------------|----------------------------|---------------------|---|----------------------------------|--|
| | | Duration | 47 hours 24 minutes | | | | |
| Met-Ed | 77,239 | Start Date/Time | July 18, 2006 4:57 p.m. | 13,484,600 | Lightning, Heavy Rain, Strong Winds | Approved Sep 22, 2006 | |
| | | End Date/Time | July 20, 2006 4:21 p.m. | | | | |
| | | Duration | 72 hours 47 minutes | | | | |
| Met-Ed | 53,738 | Start Date/Time | Sep 1, 2006 11:10 p.m. | 15,908,642 | Heavy Rain, Gusting Winds | Approved Oct 18, 2006 | |
| | | End Date/Time | Sep 4, 2006 11:57 p.m. | | | | |

<u>Section 57.195(e)(2):</u> 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.

Reliability Index Values

Reliability Improvement by All Companies

| 3Q 2006 | Po | Penn Power | | | Penelec | | | Met-Ed | | | |
|---|-----------|----------------------|--------------------|-----------|----------------------|--------------------|-------------|----------------------|--------------------|--|--|
| (12-Mo Rolling) | Benchmark | 12-Month Standard | 12-Month Actual | Benchmark | 12-Month Standard | 12-Month Actual | Benchmark | 12-Month Standard | 12-Month Actual | | |
| SAIFI | 1.12 | 1.34 | 1.27 | 1.26 | 1.52 | 1.62 | 1.15 | 1.38 | 1.67 | | |
| CAIDI | 101 | 121 | 118 | 117 | 141 | 121 | 117 | 140 | 118 | | |
| SAIDI | 113 | 162 | 150 | 148 | 213 | 197 | 135 | 194 | 198 | | |
| Customers Served (2) | | 158,403 | • | | 592,460 | | | 531,623 | | | |
| Number of Sustained Interruptions | | 3,434 | | | 13,051 | | | 9,610 | | | |
| Customers Affected | 200,934 | | | 962,566 | | | 888,591 | | | | |
| Customer Minutes | 2 | 23,706,410 |) | 1 | 16,942,266 | | 105,134,528 | | | | |

⁽a) Represents the average number of customers served during the reporting period.

Summary of Reliability Improvement over 2nd Quarter

Penn Power

SAIFI 15% improvement over 12-Month Rolling Actual for 2Q 2006.

5% better than Commission's 12-Month Standard.

CAIDI 13% improvement over 12-Month Rolling Actual for 2Q 2006.

2% better than Commission's 12-Month Standard.

SAIDI <u>26% improvement over 12-Month Rolling Actual for 2Q 2006.</u>

7% better than Commission's 12-Month Standard.

Peneleç

SAIFI <u>9% improvement</u> over 12-Month Rolling Actual for 2Q 2006.

CAIDI 12% improvement over 12-Month Rolling Actual for 2Q 2006.

14% better than Commission's 12-Month Standard.

SAIDI <u>20% improvement</u> over 12-Month Rolling Actual for 2Q 2006.

8% better than Commission's 12-Month Standard.

Met-Ed

SAIFI 7% improvement over 12-Month Rolling Actual for 2Q 2006.

CAID1 16% better than Commission's 12-Month Standard.

SAIDI 5% improvement over 12-Month Rolling Actual for 2Q 2006.

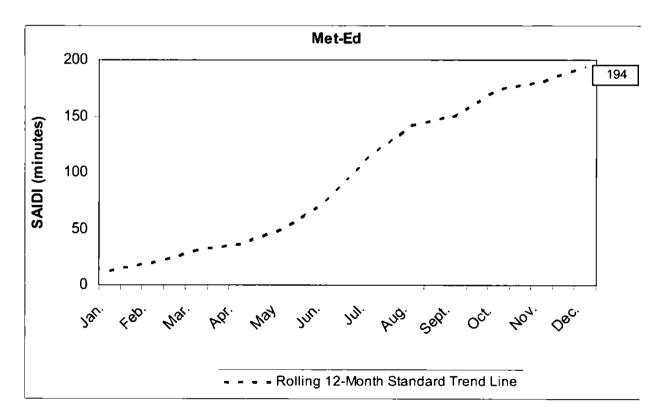
SAIDI Trend Charts

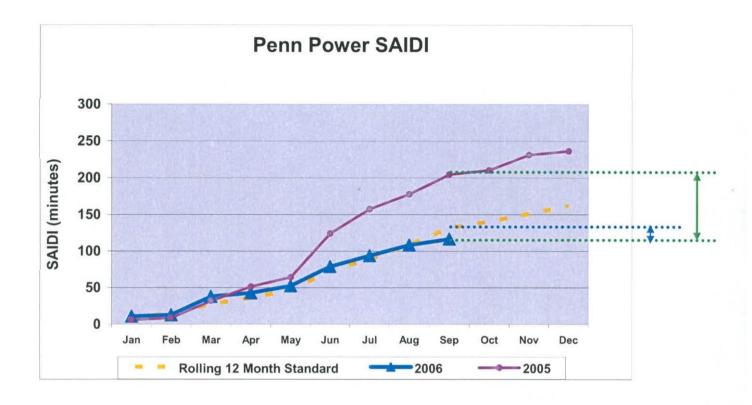
The Companies' year-to-date SAIDI and SAIFI values increase throughout the year and can be plotted on a periodic basis to determine how each company is performing in comparison to prior years, or in comparison to a desired trend line. This plot provides a much-enhanced visualization of the progress the Companies are making in comparison to reviewing tabular lists of index values and targets.

The Companies have trended year-to-date SAIDI for 2006, as shown below, such that each Company's performance can be readily compared to both SAIDI performance from the previous year, as well as the Commission's Rolling 12-Month Standard.

Normalized Trend

The normalized trend line is a slight modification to a straight-line trend, taking into consideration the three-year historical performance of each Company, with higher SAIDI accumulation (customer minutes of interruption) during the summer storm months, and lower SAIDI accumulation in the winter months. For example, Met-Ed's 3-year historical performance indicates the Company would expect to accumulate more SAIDI in June through August (approximately 30 minutes per month) than in November through December (approximately 10 minutes per month). As shown in the Met-Ed chart below, the Commission's 12-Month Rolling Standard of 194 is plotted using this normalized trending approach.

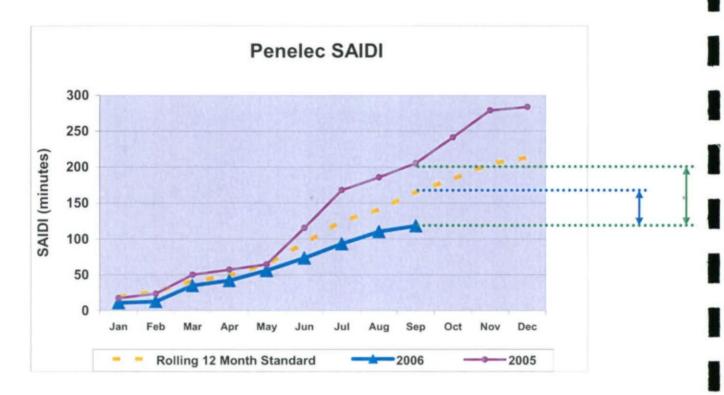


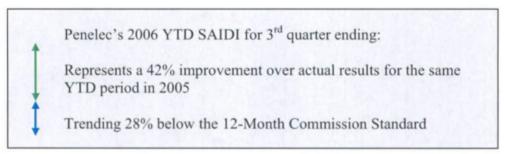


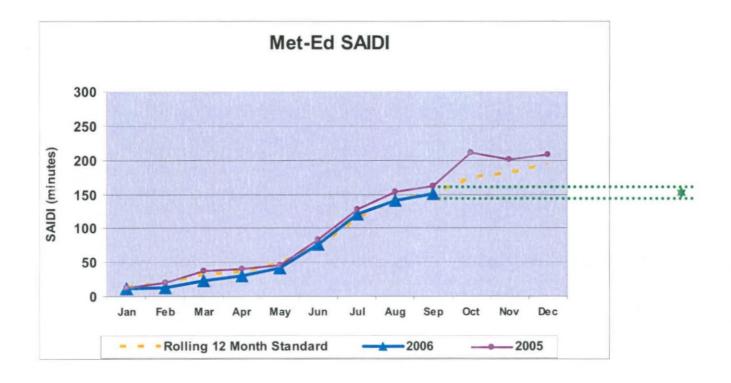
Penn Power's 2006 YTD SAIDI for 3rd quarter ending:

Represents a 44% improvement over actual results for the same YTD period in 2005

Trending 11% below the Commission's 12-Month Standard







Met-Ed's 2006 YTD SAIDI for 3rd quarter ending:

★ Represents a 7% improvement over actual results for the same YTD period in 2005.

Trending to achieve the Commission's 12-Month Standard at year-end 2006.

<u>Section 57.195(e)(3):</u> 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.

Worst Performing Circuit - Reliability Indices

The Companies define their 5% worst performing circuits based on SAIDI. FirstEnergy uses SAIDI as a measure of circuit performance. The SAIDI index is a measure of the total customer minutes of distribution outages on the circuit. Beginning in 2006, distribution circuits are ranked based on SAIDI contribution to the overall Company SAIDI (customer minutes).

Penn Power 5% Worst Performing Circuits

| Circuit Rank | Substation | Circuit Desc | Average Customers (1) | Outages (2) | Lockouts (3) | Customer Minutes (4) | Customers Affected (5) | SAIDI Impact Rank (6) | SAIDI (7) | SAIFI (7) | CAIDI (7) | MAIFI (7) |
|-----------------|------------|-----------------|-----------------------------|----------------|-----------------|----------------------------|------------------------------|--------------------------------|--------------|--------------|--------------|--------------|
| 1 | Seneca | W-700 | 1,284 | 43 | 1 | 824,890 | 6,615 | 5.21 | 642 | 5.15 | 125 | 4.35 |
| 2 | Hartstown | W-126 | 2,204 | 117 | 0 | 821,355 | 5,090 | 5.19 | 373 | 2.31 | 161 | 5.61 |
| 3 | Mercer | W-167 | 1,228 | 46 | 0 | 571,138 | 2,236 | 3.61 | 465 | 1.82 | 255 | 2.83 |
| 4 | Koppel | D-532 | 1,260 | 41 | 0 | 533,061 | 2,119 | 3.37 | 423 | 1.68 | 252 | 0.17 |
| 5 | Репту | W-156 | 1,053 | 70 | 0 | 531,339 | 2,288 | 3.35 | 505 | 2.17 | 232 | 1.47 |
| 6 | Jamestown | W-162 | 1,065 | 62 | 0 | 515,494 | 3,406 | 3.25 | 484 | 3.20 | 151 | 7.59 |
| 7 | Stoneboro | W-130 | 1,420 | 62 | 0 | 499,384 | 2,212 | 3.15 | 352 | 1,51 | 232 | 2.70 |
| 8 | Hermitage | W-260 | 2,400 | 52 | 0 | 412,857 | 2,679 | 2.61 | 172 | 1.12 | 154 | 1.89 |

- (1) Average number of customers served by the circuit for the 12-month period.
- (2) Number of unique outages experienced by one or more customers on the circuit during the period, due to distribution outage causes.
- (3) Number of circuit lockouts during the period.
- (4) Total customer minutes of outage during the period due to distribution outage causes.
- (5) Number of customer outages during the period due to distribution outage causes.
- (6) Impact of the distribution outages on this circuit to Penn Power's SAIDI.
- (7) Distribution circuit SAIDI, SAIFI, CAIDI and MAIFI 12-Month Rolling due to distribution outage causes.

Penelec 5% Worst Performing Circuits

| Circuit Rank | Substation | Circuit Desc | Average Customers (1) | Outages (2) | Lockouts (3) | Customer Minutes (4) | Customers Affected (5) | SAIDI Impact Rank (6) | SAIDI (7) | SAIFI (7) | CAIDI (7) | MAIFI (7) |
|-----------------|------------------------|-----------------|-----------------------------|----------------|-----------------|----------------------------|------------------------------|--------------------------------|--------------|--------------|--------------|--------------|
| 1 | Philipsburg | 00162-22 | 3,292 | 83 | 0 | 2,767,904 | 8,968 | 4.67 | 841 | 2.72 | 309 | 7.42 |
| 2 | Philipsburg | 00164-22 | 2,353 | 59 | 1 | 1,981,006 | 13,477 | 3.34 | 842 | 4.91 | 171 | 17.45 |
| 3 | Crown | 00319-51 | 1,333 | 70 | 2 | 1,541,059 | 6,146 | 2.60 | 1,156 | 4.61 | 251 | 7.36 |
| 4 | Union City | 00206-43 | 3,986 | 111 | 1 | 1,426,966 | 13,036 | 2.41 | 358 | 2.82 | 127 | 17.54 |
| 5 | Warren S | 00220-41 | 3,089 | 82 | 0 | 1,398,145 | 10,542 | 2.36 | 453 | 3.39 | 133 | 1.40 |
| 6 | Springboro | 00237-52 | 3,113 | 85 | 0 | 1,363,938 | 17,342 | 2.30 | 438 | 5.57 | 79 | 9.06 |
| 7 | Boyer | 00583-31 | 1,569 | 23 | 1 | 1,266,889 | 4,519 | 2.14 | 807 | 2.88 | 280 | 1.07 |
| 8 | Philipsburg | 00149-22 | 996 | 33 | 2 | 1,101,033 | 3,357 | 1.86 | 1,105 | 2.97 | 372 | 10.07 |
| 9 | Hammett | 00502-31 | 1,576 | 53 | 1 | 1.033.818 | 4,782 | 1.74 | 656 | 3.03 | 216 | 18.16 |
| 10 | Madera | 00166-22 | 2,260 | 75 | 2 | 979,895 | 7,281 | 1.65 | 434 | 2.77 | 157 | 20.82 |
| 11 | Dubois | 00137-23 | 2,775 | 89 | 0 | 928,488 | 7,961 | 1.57 | 335 | 2.83 | 118 | 21.68 |
| 12 | Samuel Rea Car Shop | 00031-71 | 2,324 | 54 | 2 | 861,765 | 7,216 | 1.45 | 371 | 3.08 | 120 | 8.59 |
| 13 | Rolling Meadows | 00310-31 | 3,197 | 42 | 0 | 835,460 | 5,531 | 1,41 | 261 | 1.70 | 153 | 7.93 |
| 14 | Grover | 00527-63 | 1,169 | 80 | 1 | 774,087 | 7,791 | 1.31 | 662 | 5.87 | 113 | 6.17 |
| 15 | Columbia Crossroads | 00763-63 | 549 | 32 | 2 | 659,681 | 2,704 | 1,11 | 1,202 | 4.93 | 244 | 12.55 |
| 16 | Emlenton | 00322-51 | 466 | 22 | 1 | 656,138 | 1,782 | 1.11 | 1,408 | 3.82 | 368 | 5.15 |
| 17 | Shawville | 00153-21 | 1,144 | 39 | 1 | 635,140 | 5,062 | 1.07 | 555 | 3.66 | 152 | 6.47 |
| 18 | Church | 00426-34 | 683 | 17 | 2 | 626,545 | 1,710 | 1.06 | 917 | 2.50 | 366 | 6.08 |
| 19 | Edinboro | 00420-34 | 1,869 | 48 | 1 | 609,116 | 8,361 | 1.03 | 326 | 4.47 | 73 | 1.27 |
| 20 | Tionesta SW St | 00498-51 | 1,122 | 51 | 0 | 590,343 | 4,983 | 1.00 | 526 | 3.25 | 162 | 11.05 |
| 21 | Hammett | 00504-31 | 1,303 | 34 | 3 | 576,626 | 6,270 | 0.97 | 443 | 4.76 | 93 | 2.96 |
| 22 | Piney | 00523-51 | 1,202 | 49 | 1 | 573,798 | 3,563 | 0.97 | 477 | 2.96 | 161 | 5.91 |
| 23 | Bellwood N | 00635-22 | 1,131 | 35 | 2 | 559,100 | 5,725 | 0.94 | 494 | 5.06 | 98 | 4.00 |
| 24 | Madera | 00167-22 | 1,674 | 40 | 4 | 554,576 | 4,268 | 0.94 | 331 | 2.54 | 130 | 7.54 |
| 25 | Somerset | 00013-12 | 1,996 | 56 | 0 | 544,007 | 3,656 | 0.92 | 273 | 1.66 | 164 | 26.17 |
| 26 | Boyer | 00584-31 | 1,751 | 22 | 1 | 540,047 | 2,067 | 0.91 | 308 | 1.18 | 261 | 0.00 |
| 27 | Erie South | 00259-31 | 2,384 | 37 | 0 | 536,099 | 4,155 | 0.90 | 225 | 1.74 | 129 | 28.27 |
| 28 | Green Garden | 00224-31 | 2,060 | 25 | 0 | 523,992 | 4,523 | 0.88 | 254 | 2.20 | 116 | 0.00 |
| 29 | Eldred | 00119-42 | 898 | 19 | 2 | 512,568 | 3,502 | 0.87 | 571 | 3.90 | 146 | 5.14 |
| 30 | Page Rd | 00445-43 | 657 | 37 | 2 | 511,102 | 2,379 | 0.86 | 778 | 3.62 | 215 | 10.04 |
| 31 | Riverside | 00150-81 | 1,186 | 27 | 2 | 511,012 | 5,835 | 0.86 | 431 | 4.92 | 88 | 7.01 |
| 32 | Somerset | 00016-12 | 1,326 | 47 | 0 | 505,471 | 3,236 | 0.85 | 381 | 2.33 | 163 | 12.59 |
| 33 | Mansfield | 00559-63 | 535 | 29 | 2 | 470,961 | 2,450 | 0.79 | 880 | 4.56 | 193 | 7.20 |
| 34 | Thompson | 00436-65 | 1,323 | 69 | 0 | 470,842 | 6,954 | 0.79 | 356 | 4.99 | 71 | 23.73 |
| 35 | Mansfield | 00558-63 | 731 | 32 | 1 | 467,785 | 2,452 | 0.79 | 640 | 3.13 | 205 | 2.18 |
| 36 | Meadville | 00471-52 | 334 | 5 | 4 | 455,753 | 1,676 | 0.77 | 1,365 | 5.02 | 272 | 2.99 |
| 37 | Fallen Timbers | 00693-22 | 519 | 17 | 2 | 455,185 | 1,174 | 0.77 | 877 | 2.26 | 388 | 12.01 |
| 38 | Powell Ave | 00513-31 | 1,858 | 30 | 1 | 439,200 | 3,528 | 0.74 | 236 | 1.88 | 126 | 2.05 |
| 39_ | Ralphton | 00015-12 | 1,170 | 57 | 2 | 423,746 | 6,250 | 0.72 | 362 | 4.98 | 73 | 13.01 |
| 40 | Lucerne | 00091-13 | 1,904 | 40 | 1 | 419,359 | 5,013 | 0.71 | 220 | 2.63 | 84 | 5.18 |
| 41 | Rachel Hill | 00049-11 | 2,286 | 22 | 0 | 402,852 | 2,364 | 0.68 | 176 | 1.03 | 170 | 6.45 |
| 42 | Northeast | 00592-31 | 1,567 | 65 | 1 | 399,156 | 3,428 | 0.67 | 255 | 2.19 | 116 | 6.53 |

Penelec 5% Worst Performing Circuits

| Circuit Rank | Substation | Circuit Desc | Average Customers (1) | Outages (2) | Lockouts (3) | Customer Minutes (4) | Customers Affected (5) | SAIDI Impact Rank (6) | SAIDI (7) | SAIFI (7) | CAIDI (7) | MAIFI (7) |
|-----------------|--------------------|-----------------|-----------------------------|----------------|-----------------|----------------------------|------------------------------|--------------------------------|--------------|--------------|--------------|--------------|
| 43 | Pennmar | 00002-12 | 936 | 28 | 2 | 390,863 | 3,690 | 0.66 | 418 | 3.87 | 108 | 9.69 |
| 44 | E Sayre | 00518-61 | 615 | 28 | 0 | 388,646 | 1,330 | 0.66 | 632 | 2.16 | 292 | 1.48 |
| 45 | Reed St | 00549-31 | 957 | 9 | 5 | 388,566 | 5,619 | 0.66 | 406 | 5.87 | 69 | 0.99 |
| 46 | Marienville | 00328-51 | 1,255 | 39 | 0 | 385,114 | 2,026 | 0.65 | 307 | 1.61 | 190 | 17.18 |
| 47 | Tiffany | 00440-65 | 1,233 | 34 | 0 | 382,505 | 3,088 | 0.65 | 310 | 1.55 | 200 | 12.73 |
| 48 | Lake Como | 00787-65 | 962 | 47 | 0 | 380,168 | 2,190 | 0.64 | 395 | 2.19 | 180 | 57.45 |
| 49 | E Pike | 00095-13 | 3,470 | 31 | 0 | 375,602 | 2,670 | 0.63 | 108 | 0.77 | 141 | 3.40 |
| 50 | Ralphton | 00014-12 | 1,682 | 38 | 1 | 371,534 | 3,041 | 0.63 | 221 | 1.81 | 122 | 2.54 |
| 51 | Clearfield | 00148-21 | 1,681 | 57 | 0 | 370,749 | 2,181 | 0.63 | 221 | 1.29 | 171 | 8.00 |
| 52 | Rolling Meadows | 00249-31 | 2,214 | 23 | 0 | 369,621 | 1,783 | 0.62 | 167 | 0.81 | 207 | 1.00 |
| 53 | Lawrenceville | 00632-63 | 653 | 17 | 3 | 362,109 | 2,661 | 0.61 | 555 | 4.08 | 136 | 2.04 |
| 54 | Madera | 00147-22 | 1,086 | 36 | 2 | 357,569 | 1,971 | 0.60 | 329 | 1.81 | 181 | 5.72 |
| 55 | Knox | 00323-51 | 1,347 | 48 | 0 | 355,217 | 1,593 | 0.60 | 264 | 1.18 | 223 | 54.94 |
| 56 | Madera | 00165-22 | 629 | 35 | 1 | 355,170 | 2,091 | 0.60 | 565 | 3.32 | 170 | 13.69 |
| 57 | Moss Creek | 00049-72 | 520 | 16 | 2 | 350,961 | 1,757 | 0.59 | 675 | 3.38 | 200 | 7.10 |
| 58 | Morgan St | 00479-52 | 1,458 | 10 | 1 | 349,953 | 2,510 | 0.59 | 240 | 1.72 | 139 | 1.00 |
| 59 | Saxton | 00625-73 | 1,394 | 25 | 0 | 349,829 | 3,733 | 0.59 | 251 | 2.68 | 94 | 7.88 |

⁽¹⁾ Average number of customers served by the circuit for the 12-month period.

⁽²⁾ Number of unique outages experienced by one or more customers on the circuit during the period, due to distribution outage causes.

⁽³⁾ Number of circuit lockouts during the period.

⁽⁴⁾ Total customer minutes of outage during the period due to distribution outage causes.

⁽⁵⁾ Number of customer outages during the period due to distribution outage causes.

⁽⁶⁾ Impact of the distribution outages on this circuit to Penelec's SAIDI.

⁽⁷⁾ Distribution circuit SAIDI, SAIFI, CAIDI and MAIFI 12-Month Rolling due to distribution outage causes.

Met-Ed 5% Worst Performing Circuits

| Circult Rank | Substation | Circuit Pesc | Average Customers (1) | Outages (2) | Lockouts (3) | Customer Minutes (4) | Customers Affected (5) | SAIDI Impact Rank (6) | SAIDI (7) | SAIFI (7) | CAIDI (7) | MAIFI (7) |
|-----------------|---------------|-----------------|-----------------------------|----------------|-----------------|----------------------------|------------------------------|--------------------------------|--------------|--------------|--------------|--------------|
| 1 | Fox Hill | 00816-3 | 3,556 | 55 | 5 | 2,594,596 | 20,386 | 4.88 | 730 | 5.73 | 127 | 3.98 |
| 2 | N Bangor | 00826-3 | 3,023 | 95 | 4 | 2,539,370 | 20,686 | 4.78 | 840 | 5.71 | 147 | 2.95 |
| 3 | Barto | 00705-1 | 1,885 | 89 | 2 | 2,194,689 | 11,329 | 4.13 | 1,164 | 6.01 | 194 | 2.04 |
| 4 | Shawnee | 00895-3 | 3,431 | 59 | 1 | 2,108,858 | 9,689 | 3.97 | 615 | 2.77 | 222 | 6.12 |
| 5 | Shawnee | 00822-3 | 2,130 | 52 | 4 | 1,674,102 | 9,485 | 3.15 | 786 | 4.45 | 177 | 6.44 |
| 6 | Pleasantville | 00142-1 | 846 | 40 | 0 | 1,556,883 | 2,153 | 2.93 | 1,840 | 2.54 | 723 | 0.76 |
| 7 | Shawnee | 00860-3 | 3,112 | 46 | 1 | 1,445,645 | 11,951 | 2.72 | 465 | 3.84 | 121 | 4.03 |
| 8 | Birchwood | 00622-3 | 1,713 | 64 | 1 | 1,376,001 | 7,753 | 2.59 | 803 | 4.51 | 178 | 5.17 |
| 9 | E Topton | 00724-1 | 1,346 | 45 | 1 | 1,241,912 | 5,044 | 2.34 | 923 | 3.74 | 246 | 4.45 |
| 10 | Birdsboro | 00756-1 | 1,327 | 80 | 2 | 1,227,227 | 8,453 | 2.31 | 925 | 4.24 | 218 | 7.23 |
| 11 | Carsonia | 00764-1 | 2,838 | 46 | 3 | 1,199,798 | 10,832 | 2.26 | 423 | 3.82 | 111 | 2.35 |
| 12 | Newberry | 00576-4 | 2,276 | 117 | 1 | 1,135,721 | 7,024 | 2.14 | 499 | 3.08 | 162 | 24.65 |
| 13 | Mohnton | 00123-1 | 652 | 12 | 1 | 1,134,613 | 2,078 | 2.13 | 1,740 | 3.19 | 546 | 2.04 |
| 14 | Birchwood | 00623-3 | 2,410 | 57 | 1 | 1,073,605 | 7,212 | 2.02 | 445 | 2.99 | 149 | 8.62 |
| 15 | Yorkana | 00708-4 | 2,596 | 92 | 3 | 1,039,459 | 11,194 | 1.96 | 400 | 4.20 | 95 | 6.45 |
| 16 | Friedensburg | 00769-1 | 1,965 | 76 | 1 | 1,019,375 | 4,465 | 1.92 | 519 | 2.27 | 228 | 7.40 |
| 17 | Mountain | 00740-4 | 2,348 | 57 | 0 | 1,012,239 | 8,080 | 1.90 | 431 | 3.30 | 131 | 3.09 |
| 18 | Birdsboro | 00757-1 | 1,867 | 69 | 2 | 967,498 | 6,062 | 1.82 | 518 | 2.27 | 228 | 5.31 |
| 19 | N Lebanon | 00712-2 | 2,221 | 54 | 5 | 893,004 | 13,400 | 1.68 | 402 | 5.99 | 67 | 18.06 |
| 20 | S Hamburg | 00743-1 | 1,172 | 41 | 0 | 870,250 | 3,277 | 1.64 | 743 | 2.80 | 266 | 4.88 |
| 21 | Barto | 00706-1 | 2,373 | 96 | 1 | 862,326 | 4,937 | 1.62 | 363 | 2.08 | 175 | 4.27 |
| 22 | Northwood | 00643-3 | 1,415 | 25 | 4 | 829,147 | 5,164 | 1.56 | 586 | 3.65 | 161 | 8.03 |
| 23 | N Temple | 00542-1 | 661 | 28 | 0 | 816,290 | 2,239 | 1.54 | 1,235 | 3.39 | 365 | 0.96 |
| 24 | Baldy | 00736-1 | 908 | 40 | 0 | 791,388 | 2,800 | 1.49 | 872 | 3.08 | 283 | 2.01 |
| 25 | Delabole | 00036-3 | 525 | 11 | 1 | 790,869 | 1,022 | 1.49 | 1,506 | 1.95 | 774 | 0.00 |
| 26 | Leesport | 00811-1 | 1,480 | 50 | 0 | 773,388 | 4,063 | 1.45 | 523 | 2.75 | 190 | 8.64 |
| 27 | W Reading | 00525-1 | 956 | 12 | 1 | 765,611 | 2,155 | 1.44 | 801 | 1.79 | 446 | 3.03 |
| 28 | Bern Church | 00789-1 | 1,408 | 69 | 0 | 754,834 | 2,825 | 1.42 | 536 | 1.88 | 285 | 2.06 |
| 29 | Shawnee | 00899-3 | 1,801 | 45 | 0 | 724,391 | 2,745 | 1.36 | 402 | 0.85 | 473 | 1.98 |
| 30 | Bath | 00873-3 | 2,084 | 32 | 1 | 724,237 | 5,590 | 1.36 | 348 | 1.99 | 175 | 0.45 |
| 31 | Pine Lane | 00713-1 | 557 | 17 | 2 | 685,726 | 1,980 | 1.29 | 1,231 | 3.49 | 352 | 1.02 |
| 32 | Bernville | 00786-1 | 1,844 | 68 | 0 | 679,506 | 5,259 | 1.28 | 369 | 1.82 | 202 | 2.72 |
| 33 | Windsor | 00316-4 | 983 | 23 | 2 | 678,372 | 3,392 | 1.28 | 690 | 2.97 | 232 | 7.96 |
| 34 | Clearfield | 00632-3 | 892 | 40 | 2 | 677,412 | 3,397 | 1.27 | 759 | 3.81 | 199 | 0.00 |
| 35 | Shawnee | 00837-3 | 1,205 | 39 | 3 | 674,958 | 7,143 | 1.27 | 560 | 4.61 | 121 | 7.04 |
| 36 | Adamstown | 00754-1 | 1,004 | 41 | 0 | 649,870 | 942 | 1.22 | 647 | 0.94 | 690 | 4.02 |

⁽¹⁾ Average number of customers served by the circuit for the 12-month period.

⁽²⁾ Number of unique outages experienced by one or more customers on the circuit during the period, due to distribution outage causes.

⁽³⁾ Number of circuit lockouts during the period.

⁽⁴⁾ Total customer minutes of outage during the period due to distribution outage causes.

⁽⁵⁾ Number of customer outages during the period due to distribution outage causes.

⁽⁶⁾ Impact of the distribution outages on this circuit to Met-Ed's SAIDI.

⁽⁷⁾ Distribution circuit SAIDI, SAIFI, CAIDI and MAIFI 12-Month Rolling due to distribution outage causes.

<u>Section 57.195(e)(4):</u> Specific remedial efforts taken and planned for the worst performing 5% of the circuits identified in paragraph (3).

Worst Performing Circuit – Remedial Action

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed | |
|----------|------------|---------|--|--|---------------------------------------|--------|
| | | | Performance driven by two vehicle accidents lockout due to a non-preventable tree caused non-preventable tree-caused outage during a | d outage during a windstorm an | | |
| | | | Complete full-cycle tree clearing in 2006 | Complete | Feb-06 | |
| 1 | Seneca | W-700 | W-700 | Review two circuit fuses and one recloser location and completed reliability improvement work | Complete | Sep-06 |
| | | | Field reviewed the section of circuit served by the recloser station impacted by recent tree caused outage | Complete | Sep-06 | |
| _ | | | Reliability improvement work for recloser location | To be completed 1Q 2007 | | |
| | | | Performance driven by two outages downstre were caused by two line failures. | eam of a recloser station. The re | ecloser outages | |
| | | | Field review of the section of circuit served by the recloser station | Complete | May-06 | |
| 2 | Hartstown | W-126 | Complete reliability improvement work for the section of circuit served by the recloser station | To be completed by end of 4Q 2006. One section completed 8/14/06, another section is in progress | | |
| | | | Complete full-cycle tree clearing in 2006 | To be completed 4Q 2006 | | |
| | | | Performance driven by one long non-prevent | able tree outage during a sever | e storm. | |
| 3 | Mercer | W-167 | Complete full-cycle tree clearing in 2007 | Under contract | | |
| | | | Field review of the section of circuit served by the recloser station | To be completed Nov 2006 | | |
| 4 | Koppel | D-532 | Performance driven by 2 long duration non-p | reventable tree outages near th | e substation. | |
| | | | Field review of the main feed | To be completed Nov 2006 | | |
| | | | Performance driven by one very long non-pre by line failure. | eventable tree outage and two o | outages caused | |
| 5 | Perry | W-156 | Complete reliability improvement work on the main feed and at two fuse locations | Complete | Jun-06 | |
| | | | Complete reliability improvement work at five fuse locations | To be completed 4Q 2006 | | |
| 6 | Jamestown | W-162 | Performance driven by a long duration vehicl recloser station. | le accident caused outage down | stream of a | |
| <u> </u> | Jamestown | 44-102 | Field review of the section of circuit served by the recloser station | To be completed Nov 2006 | | |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
|----------|-------------------|---------|---|--|---------------------------------------|
| | | | Performance driven by two long duration out due to a brush fire catching a pole on fire, aff | | and another |
| - | | 144 400 | Field review of the section of circuit served by the recloser station | Complete | May-06 |
| , | 7 Stoneboro W-130 | VV-13U | Complete reliability improvement work for the section of circuit served by the recloser station | To be completed by end of 4Q 2006. One section completed 7/28/06, another section is in progress | |
| <u> </u> | Hermitage | W-260 | Performance driven by one long duration out station during a windstorm. | age due to a line failure affectin | g one recloser |
| • | | | Field review of the section of circuit served by the recloser station | To be completed Nov 2006 | |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
|------|-------------|----------|--|---------------------------------|---------------------------------------|
| | | | Performance was driven by outages caused | by crossarm failure and non-pre | ventable trees. |
| | | | Repaired damage to line caused by non- preventable tree and replaced crossarms | Complete | Mar-06 |
| 1 | Philipsburg | 00162-22 | Review tree conditions and complete trimming identified | Complete | Mar-06 |
| | | | Install radio controlled switches | Complete | Mar-06 |
| | | | Replace cutouts and arresters | Complete | Mar-06 |
| | | | Engineering circuit coordination review | Complete | Apr-06 |
| | <u></u> | | Install reclosers | Complete | Apr-06 |
| | | | Performance was driven by outages caused | by non-preventable trees and c | rossarms failure. |
| | | | Repaired damage to line caused by non- preventable tree and replacement of crossarms | Complete | Mar-06 |
| 2 | Philipsburg | 00164-22 | Engineering circuit coordination review | Complete | Dec-05 |
| | Timpobolg | 00104-22 | Review tree conditions and complete trimming identified | Complete | Mar-06 |
|] | | | Install reclosers | Complete | Mar-06 |
| | | | Complete full-cycle tree clearing in 2006 | Complete | Sep-06 |
| | | | Replace poles | Complete | Арг-06 |
| | | | Performance was driven by minor storm dan caused damage. | preventable tree | |
| | | l | Repaired damage to line caused by non- preventable tree and repaired conductor | Complete | Jun-06 |
| 3 | Crown | 00319-51 | Engineering circuit coordination review | Complete | Jan-06 |
| | | | Install reclosers | To be completed 4Q 2006 | |
| | | | Complete full-cycle tree clearing in 2006 | To be completed 4Q 2006 | |
| | | | Install main line tap fuses | To be Completed 4Q 2006 | |
| | | | Performance was driven by outages caused caused damage. | by minor storms and non-preve | ntable tree |
| , | I I - i Già | 00206-43 | Repaired damage to line caused by non- preventable tree and minor storm | Complete | Mar-06 |
| 4 | Union City | 00206-43 | Install reclosers | Complete | Dec-05 |
| | | | Engineering circuit coordination review | Complete | Mar-06 |
| | | | Review tree conditions and completed trimming identified | Complete | May-06 |
| | | | Performance was driven by failed insulators outages. | and cutouts and non-preventabl | e tree caused |
| | 5 Warren S | 00000 44 | Repaired damage to line caused by non- preventable tree and replaced failed insulators and cutouts | Complete | Mar-06 |
| 5 | | 00220-41 | Engineering circuit coordination review | Complete | Mar-06 |
| | | | Install main line tap fuses | Complete | Арг-06 |
| | | | Review tree conditions and completed trimming identified | Complete | Apr-06 |
| | | | Install reclosers | Complete | Oct-06 |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed | |
|------|--|----------|--|-------------------------|---------------------------------------|--|
| 6 | Springboro | 00237-52 | Performance was driven by equipment failure. | | | |
| | | | Install main line tap fuses | Complete | Dec-05 | |
| | | | Engineering circuit coordination review | Complete | Oct-05 | |
| | | | Install reclosers | Complete | Feb-06 | |
| | | | Review tree conditions and completed trimming identified | Complete | Jun-06 | |
| | | | Complete full-cycle tree clearing in 2007 | Under contract | | |
| | | | Install radio controlled switches | Complete | Jun-06 | |
| | Boyer | 00583-31 | Performance was driven by equipment failures and non-preventable tress caused damage. | | | |
| | | | Repaired damage to line caused by non- preventable tree and replaced equipment | Complete | Jun-06 | |
| 7 | | | Engineering circuit coordination review | Complete | Dec-05 | |
| | | | Install reclosers | Complete | Dec-05 | |
| | | | Review tree conditions and completed trimming identified | Complete | Jun-06 | |
| | | | Performance was driven by outages caused by non-preventable trees and conductor failure. | | | |
| , | Philipsburg | 00149-22 | Repaired damage to line caused by non- preventable tree and repaired failed conductor | Complete | Jun-06 | |
| 8 | | | Review tree conditions and completed trimming identified | Complete | Mar-06 | |
| | | | Engineering circuit coordination review | Complete | Oct-06 | |
| | | | Install reclosers | To Be Completed 4Q 2006 | | |
| | | | Install switch | To Be Completed 4Q 2006 | | |
| | | | Install radio control on existing switch | To Be Completed 1Q 2007 | | |
| | Hammett | 00502-31 | Performance was driven by minor storm damage, broken crossarms and failed primary conductor. | | | |
| | | | Completed minor storm damage repairs and replaced broken crossarms and failed | Complete | Dec-05 | |
| 9 | | | Engineering circuit coordination review | Complete | Jan-06 | |
| | | | Review tree conditions and completed trimming identified | Complete | Jun-06 | |
| | | | Install main line tap fuses | To Be Completed 4Q 2006 | 3411-00 | |
| | | | Install reclosers | To Be Completed 4Q 2006 | | |
| | <u>. </u> | | Performance was driven by outages caused by conductor failure and non-preventable trees. | | | |
| | Madera | 00166-22 | Repaired conductor | Complete | Mar-06 | |
| | | | Repaired damage to line caused by non- preventable tree | Complete | Mar-06 | |
| 10 | | | Engineering circuit coordination review | Complete | Nov-05 | |
| | | | Review tree conditions and completed trimming identified | Complete | Mar-06 | |
| | | | Install main line tap fuses | Complete | Mar-06 | |
| | | | Install reclosers | Complete | Mar-06 | |
| | | | Complete full-cycle tree clearing in 2007 | Under contract | | |
| | | | Install radio controlled switches | Complete | Apr-06 | |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
|------|------------------------|----------|--|---------------------------------------|---------------------------------------|
| 11 | Dubois | 00137-23 | Performance was driven by non-preventable tree caused damage, cutout and arrester failure and lightning. | | |
| | | | Repaired damage to line caused by non- preventable tree and lightning and replaced cutout and arrester | Complete | Mar-06 |
| | | | Install recloser | Complete Complete | Jan-06 |
| | | | Engineering circuit coordination review | Complete | Apr-06 |
| | | | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Install main line tap fuses | To be completed 4Q 2006 | |
| | | Ì | Performance was driven by failed equipment, animal contact, and circuit overload. | | |
| 12 | Samuel Rea Car Shop | 00031-71 | Balance load on circuit in field | Complete | Aug-06 |
| | | | Replace pole | Complete | May-06 |
| | | | Performance was driven by two failed underg | · · · · · · · · · · · · · · · · · · · | may 00 |
| | Dalling | | · · · · · · · · · · · · · · · · · · · | ï | Mar OC |
| 13 | Rolling Meadows | 00310-31 | Engineering circuit coordination review | Complete | Mar-06 |
| | | | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Replace failed underground cable | To be completed 4Q 2006 | |
| | | | Performance was driven by minor storm dam and equipment failures. | age and outages due to non-pr | eventable trees |
| | Grover | 00527-63 | Repaired damage to line caused by minor storm and non-preventable tree and replaced equipment | Complete | Jun-06 |
| | | | Engineering circuit coordination review | Complete | Dec-05 |
| | | | Install main line tap fuses | Complete | Dec-05 |
| 14 | | | Install reclosers | Complete | Dec-05 |
| | | | Replace poles and insulators | Complete | Dec-05 |
| | | | Review tree conditions and completed trimming identified | Complete | Jul-06 |
| | | | Install switch | To be completed 4Q 2006 | |
| | | | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Install radio control on existing switch | To Be Completed 1Q 2007 | |
| | Columbia Crossroads | 00763-63 | Performance was driven by blown fuses, vehicle caused damage and failed insulators. | | |
| | | | Completed vehicle-caused damage replaced fuses and insulators | Complete | Oct-05 |
| 45 | | | Circuit patrol | Complete | Nov-05 |
| 15 | | | Install reclosers | Complete | Dec-05 |
| | | | Engineering circuit coordination review | Complete | Mar-06 |
| | | | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Install transformer for back feed capability | To be completed 4Q 2006 | |
| | Emlenton | 00322-51 | Performance was driven by failed transformers and non-preventable tree caused damage. | | |
| 16 | | | Repaired damage to line caused by non- preventable tree and replaced transformers | Complete | Nov-05 |
| | | | Review tree conditions and completed trimming identified | Complete | Mar-06 |
| | | | Engineering circuit coordination review | Complete | May-06 |
| | | | Install main line tap fuses | Complete | Jun-06 |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
|------|-------------------|----------|--|--------------------------------|---------------------------------------|
| | Shawville | 00153-21 | Performance was driven by non-preventable tree caused outages. | | |
| 17 | | | Repaired damage to line caused by non- preventable tree | Complete | Mar-06 |
| | | | Install radio controlled switch | Complete | Nov-05 |
| | | | Review tree conditions and completed trimming identified | Complete | Маг-06 |
| | | | Engineering circuit coordination review | Complete | Sep-06 |
| | | | Install main line tap fuses | To be completed 4Q 2006 | |
| | | | Complete full-cycle tree clearing in 2006 | Complete | Sep-06 |
| | | | Install reclosers | To be completed 4Q 2006 | |
| | Church | 00426-34 | Performance was driven by minor storm damage, failed cutouts and crossarms and non- preventable tree caused damage. | | |
| | | | Repaired damage to line caused by minor storm and non-preventable tree and | | |
| 18 | | | replaced failed cutouts and crossarms | Complete | Nov-05 |
| | | | Engineering circuit coordination review | Complete | Oct-06 |
| | | | Install reclosers | To be completed 4Q 2006 | |
| | | | Complete full-cycle tree clearing in 2006 | Complete | May-06 |
| | | | Install main line tap fuses | To be completed 4Q 2006 | |
| | Edinboro | 00420-34 | Performance was driven by animal contact as | nd non-preventable tree caused | damage. |
| | | | Repaired damage to line caused by non- preventable tree | Complete | Jun-06 |
| 19 | | | Review tree conditions and completed trimming identified | Complete | Jun-06 |
| | | | Install animal guards | To be completed 4Q 2006 | |
| | | | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Install main line tap fuses | To be completed 4Q 2006 | |
| | Tionesta SW St | 00498-51 | Performance was driven by failed conductor and cutouts and non-preventable tree caused damage. | | |
| | | | Engineering circuit coordination review | Complete | Feb-06 |
| 20 | | | Review tree conditions and completed trimming identified | Complete | Mar-06 |
| | | | Install main line tap fuses | To be completed 4Q 2006 | |
| | | | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Install reclosers | To be completed 4Q 2006 | |
| | Hammett | 00504-31 | Performance was driven by minor storm damage; broken crossarms and non-preventable tree caused damage. | | |
| 21 | | | Repaired damage to line caused by minor storm and non-preventable tree and replaced broken crossarms | Complete | Feb-06 |
| | | | Engineering circuit coordination review | Complete | Jan-06 |
| | | | Review tree conditions and completed trimming identified | Complete | Jun-06 |
| | | | Install reclosers | To be completed 4Q 2006 | |
| | Piney | 00523-51 | Performance was driven by summer heat load. | | |
| 22 | | | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Installed upgraded fusing | Complete | Aug-06 |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
|------|-----------------|----------|--|--------------------------------|---------------------------------------|
| | | | Performance was driven by failed equipment | and animal contact. | |
| 23 | Bellwood N | 00635-22 | Replaced insulators and arresters | Complete | Jun-06 |
| | | | Install animal guards | To be completed 4Q 2006 | |
| | | | Performance was driven by failed conductor damage. | and insulators and non-prevent | able tree caused |
| | | | Repaired damage to line caused by non- preventable tree, repaired failed conductor and replaced insulators | Complete | Mar-06 |
| 24 | Madera | 00167-22 | Install radio controlled switch | Complete | Nov-05 |
| | | | Install reclosers | Complete | Mar-06 |
| | | | Engineering circuit coordination review | To be completed 4Q 2006 | |
| | | | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Install main line tap fuses | To be completed 4Q 2006 | |
| | 1 | | Performance driven by minor storm damage. | <u> </u> | |
| 25 | Somerset | 00013-12 | Repaired damage to line caused by minor storm | Complete | May-06 |
| | Boyer | 00584-31 | Performance was driven by coordination issu | 10S. | |
| 26 | | | Engineering circuit coordination review | Complete | Feb-06 |
| 26 | | | Install main line tap fuses | To be completed 4Q 2006 | |
| | | | Install reclosers | To be completed 4Q 2006 | |
| | | | Performance was driven by coordination issu | ies. | * |
| | | 00259-31 | Review tree conditions and completed trimming identified | Complete | Mar-06 |
| 27 | Erie S | | Engineering circuit coordination review | Complete | Mar-06 |
| - | | | Install reclosers | Complete | Jun-06 |
| | | | Reconductor / Convert 4 kV to 34.5 kV Load transfer was done in lieu of reconductoring identified in previous report | Complete | Aug-06 |
| | | | Performance was driven by summer heat loa | nd | |
| 28 | Green Garden | 00224-31 | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Installed upgraded fusing | Complete | Aug-06 |
| | | | Performance was driven by customer contact | t. | |
| 29 | Eldred | 00119-42 | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Engineering circuit review | To be completed 4Q 2006 | |
| | | | Performance was driven by non-preventable | tree caused damage. | |
| | | | Review tree conditions and completed trimming identified | Complete | Mar-06 |
| 30 | Page Rd | 00445-43 | Engineering circuit coordination review | Complete | Feb-06 |
| | | | Install main line tap fuses | Complete | Jun-06 |
| | | | Complete full-cycle tree clearing in 2006 | To be completed 4Q 2006 | 22.1 00 |
| | | | Install reclosers | Complete | Jun-06 |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
|------|------------|--------------|--|---------------------------------|---------------------------------------|
| | | | Performance was driven by minor storm dan | nage, equipment failure and car | pole accident. |
| 31 | Riverside | 00150-81 | Repaired pole from car pole accident | Complete | Sep-06 |
| 31 | Riverside | 00150-61 | Repaired damage to line caused by minor storm and replaced conductor and broken pole | Complete | May-06 |
| 32 | Somerset | 00016-12 | Performance was driven by failed equipment | | |
| JZ | Somerset | 00010-12 | Replaced cutouts | Complete | Apr-06 |
| | | | Performance was driven by failed equipment | and loss of supply. | |
| 33 | Mansfield | 00559-63 | Replaced insulators | Complete | May-06 |
| | | | Review for protection issues | To be completed 4Q 2006 | n' |
| | | | Performance was driven by non-preventable | trees. | |
| 34 | Thompson | 00436-65 | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Review tree conditions and completed trimming identified | Complete | Oct-06 |
| 35 | Mansfield | 00558-63 | Performance was driven by various equipme | nt failures. | |
| 55 | Mariancia | 00000-00 | Review circuit for protection | To be completed 4Q 2006 | |
| | | | Performance was driven by underground fail | ures. | |
| 36 | Meadville | 00471-52 | Complete full-cycle tree clearing in 2006 | To be completed 4Q 2006 | |
| | | | Install underground cable | To be completed 4Q 2006 | |
| | | 00693-22 | Performance was driven by minor storm dan | nage. | |
| 37 | Failen | | Complete full-cycle tree clearing in 2007 | Under contract | |
| | Timbers | | Repaired damage to line caused by minor storm | Complete | Jun-06 |
| | | | Performance was driven by blown fuses and | non-preventable tree caused d | amage. |
| | | | Repaired line and transformer failure | Complete | Jul-06 |
| | | | Engineering circuit coordination review | Complete | Dec-05 |
| 38 | Powell Ave | Ave 00513-31 | Review tree conditions and completed trimming identified | Complete | Jan-06 |
| | | | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Install Reclosers | Complete | Mar-06 |
| | | | Performance was driven by minor storm and | non-preventable tree caused d | amage. |
| 39 | Ralphton | 00015-12 | Complete full-cycle tree clearing in 2006 | To be completed 4Q 2006 | |
| | | | Repaired damage to line caused by non- preventable tree and minor storm | Complete | May-06 |
| | | | Performance was driven by heat and coording | nation. | |
| 40 | Lucerne | 00091-13 | Complete full-cycle tree clearing in 2006 | Complete | Aug-06 |
| | | | Balanced load on circuit in field, changed fuse and added additional fuse | Complete | Aug-06 |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
|------|-------------------------|----------|--|-----------------------------------|---------------------------------------|
| | - | | Performance was driven by non-preventable resulting from a logger. | tree caused damage and tree c | aused damage |
| | | | Repaired damage to line caused by non- preventable tree and tree-caused damage resulting from a logger | Complete | Oct-05 |
| 41 | Rachel Hill | 00049-11 | Install reclosers | Complete | Jan-06 |
| | | | Engineering circuit coordination review | Complete | Mar-06 |
| | | | Complete full-cycle tree clearing in 2006 | Complete | Jun-06 |
| | | | Install main line tap fuses | To be completed 4Q 2006 | |
| | - | | Performance was driven non-preventable tre | <u> </u> | |
| | | | Review tree conditions and completed trimming identified | Complete | Apr-06 |
| 42 | Northeast | 00592-31 | Engineering circuit coordination review | Complete | Mar-06 |
| | | | Install reclosers | To be completed 4Q 2006 | |
| | | | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Install main line tap fuses | To be completed 4Q 2006 | |
| | | | Performance was driven by minor storm and | non-preventable tree damage. | |
| | | | Completed minor storm damage repairs | Complete | Jun-06 |
| 43 | Penmar | 00002-12 | Complete full-cycle tree cleaning in 2006 | To be completed 4Q 2006 | |
| | | | Review tree conditions and complete trimming identified | To be completed 4Q 2006 | |
| | - | | Performance was driven by non-preventable | tree damage. | |
| 44 | E Sayre | 00518-61 | Complete full-cycle tree clearing in 2006 | Complete | Sep-06 |
| | 2 dayid | | Review tree conditions and complete trimming identified | Complete | May-06 |
| 45 | B40t | 00540.04 | Performance was driven by equipment failure | e. | |
| 45 | Reed St | 00549-31 | Replaced dead-end insulators | Complete | Sep-06 |
| | _ | | Performance was driven by non-preventable | tree caused damage. | |
| 46 | Marienville Marienville | 00328-51 | Complete full-cycle tree clearing in 2006 | Complete | Sep-06 |
| 40 | Manenville | 00328-31 | Review tree conditions and complete trimming identified | To be completed 4Q 2006 | 39,00 |
| | | | Performance was driven by loss of supply an | <u>'</u> | damage. |
| 47 | Tiffany | 00440-65 | Review tree conditions and complete trimming identified | Complete | Aug-06 |
| | | | Performance was driven by protection issues | s and a loss of supply event. | |
| 48 | Lake Como | 00787-65 | Engineering circuit coordination review | Complete | Mar-06 |
| | | | Install reclosers | Complete | Mar-06 |
| | | | Performance was driven by animal contact a | 1 - | |
| 49 | E Pike | 00095-13 | Install animal guards | Complete | May-06 |
| | | | Complete full-cycle tree clearing in 2007 Replace conductor | Under contract Complete | May-06 |
| | | | Performance was driven by non-preventable | <u> </u> | iviay-∪o |
| | | | | T T | |
| 50 | Ralphton | 00014-12 | Complete full-cycle tree clearing in 2006 Review tree conditions and complete trimming identified | To be completed 4Q 2006 Complete | Sep-06 |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed | | | |
|------|--------------------|----------|---|--|---------------------------------------|--|--|--|
| 51 | 54 015-14 00448.34 | | Performance was driven by equipment failure | Performance was driven by equipment failure and non-preventable trees. | | | | |
| 31 | Clearfield | 00148-21 | Repaired spacer cable Complete | | Jun-06 | | | |
| | | | Performance was driven by equipment failure | | | | | |
| 52 | Rolling Meadows | 00249-31 | Complete full-cycle tree clearing in 2007 | Under contract | l | | | |
| | | | Replaced failed cutouts | Complete | Aug-06 | | | |
| | <u> </u> | | Performance was driven by tornado and mind | or storm damage and failed insu | ulators. | | | |
| 53 | Lawrenceville | 00632-63 | Engineering circuit coordination review | Complete | Feb-06 | | | |
| | | | Install reclosers | Complete | Mar-06 | | | |
| | | | Performance was driven by a failed insulator | and non-preventable tree caus | ed damage. | | | |
| | | | Repaired damage to line caused by non- preventable tree and replaced failed insulator | Complete | Mar-06 | | | |
| 54 | Madera | 00147-22 | Install radio controlled switches | Complete | Mar-06 | | | |
| | | | Engineering circuit coordination review | Complete | Sep-06 | | | |
| | | | Install reclosers | To be completed 4Q 2006 | | | | |
| | | | Complete full-cycle tree clearing in 2007 | Under contract | | | | |
| | | | Install main line tap fuses | To be completed 4Q 2006 | | | | |
| | Knox | 00323-51 | Performance was driven by failed cutouts and non-preventable tree caused | | outages. | | | |
| | | | Engineering circuit coordination review | Complete | Dec-05 | | | |
| | | | Install main line tap fuses | Complete | Dec-05 | | | |
| 55 | | | Install reclosers | Complete | Dec-05 | | | |
| | | | Replace poles and insulators | Complete | Dec-05 | | | |
| ļ. | | | Complete full-cycle tree clearing in 2006 | To be completed 4Q 2006 | 1 | | | |
| _ | | | Review tree conditions and complete trimming identified | Complete | Mar-06 | | | |
| | | | Performance was driven by minor storm dam | age and non-preventable trees | | | | |
| 56 | Madera | 00165-22 | Complete full-cycle tree clearing in 2007 | Under contract | , | | | |
| | | | Review tree conditions and complete trimming identified | Complete | Jun-06 | | | |
| | | | Performance was driven by minor storm dam | age and non-preventable trees | | | | |
| 57 | Moss Creek | 00049-72 | Review tree conditions and complete trimming identified | Complete | Jun-06 | | | |
| | | | Performance was driven by failed equipment | | | | | |
| | Momo- St | 00470.50 | Replace cutouts | Complete | Apr-06 | | | |
| 58 | Morgan St | 00479-52 | Complete full-cycle tree clearing in 2006 | Complete | Sep-06 | | | |
| | | | Engineering circuit coordination review | Complete | Oct-06 | | | |
| _ | ' | <u> </u> | Performance was driven by non-preventable | <u> </u> | | | | |
| 59 | Saxton | 00625-73 | Review tree conditions and completed trimming identified | Complete | Jun-06 | | | |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
|------|---------------|---------|---|---------------------------------|------------------------------------|
| | | | Equipment failure, line failure, and Trees relations | ted outages account for 77% of | total customer |
| | | | Converted 3 areas from 4.8 kV to 34.5 kV | Completed | Dec-05 |
| 1 | Fox Hill | 00816-3 | Convert 2 areas from 4.8 kV to 34.5 kV | To be completed 2Q 2007 | ĺ |
| | | | Complete full-cycle tree clearing in 2006 | Completed | Jan-05 |
| | | | Installed recloser | Completed | Nov-05 |
| | | | Install two 3 phase reclosers | To be completed 4Q 2006 | |
| | | | Tree, vehicle, equipment and line failure outa | ges account for 85% of total cu | stomer minutes. |
| 2 | N Bangor | 00826-3 | Installed additional fusing | Completed | Nov-05 |
| ۷ | N bangoi | 00020-3 | Complete full-cycle tree clearing in 2006 | To be completed 4Q 2006 | |
| | | | Install 3 phase recloser | Completed | Sep-06 |
| | | | Tree caused outages represent 72% of total of | customer minutes | * |
| | | | Fuse upgrade | Complete | Nov-05 |
| | | | Mainline switch upgrade | Complete | Jan-06 |
| | | | Replace pole | Complete | Jan-06 |
| 3 | Barto | 00705-1 | Review tree conditions and complete trimming identified | Complete | Aug-06 |
| | | | Install fuse/bypass switch | Complete | Sep-06 |
| | | | Install animal protection | Complete | Sep-06 |
| | | | Complete full-cycle tree clearing in 2006 | To be completed 4Q 2006 | |
| | | | Install and upgrade fusing | To be completed 4Q 2006 | |
| | | | Install additional fuse/bypass switch | To be completed 4Q 2006 | |
| | | | Car pole accidents and tree related outages a | account for 90% of total custom | er minutes. |
| 4 | Shawnee | 00895-3 | Installed recloser | Completed | Nov-05 |
| | Shawhee | 00093-3 | Upgrade single-phase areas to 3-phase | Completed | Dec-05 |
| ; | } | | Added additional fusing | Completed | Apr-06 |
| | | | Trees and equipment failure related outages | account for 83% of total custom | er minutes. |
| 5 | Shawnee | 00822-3 | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Repair failed recloser | To be completed 4Q 2006 | |
| | | | Tree caused outages represent 84% of total of | customer minutes | <u> </u> |
| 6 | Pleasantville | 00142-1 | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Install additional tap fuses | To be completed 2Q 2007 | |
| | | | Equipment failure, car pole accidents, and ligitude customer minutes. | htning related outages account | for 84% of total |
| 7 | Chausas | 00860-3 | Complete full-cycle tree clearing in 2005 | Completed | Dec-05 |
| , | Shawnee | 00000-3 | Converted 4.8 kV to 34.5 kV | Completed | Dec-05 |
| | | | Aluminum bell insulators to be replaced on main line | Completed | Nov-05 |
| | | | Tree, equipment failure, car pole accidents, a customer minutes. | nd overloading outages accoun | t for 95% of total |
| 8 | Birchwood | 00622-3 | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Install larger single phase recloser | Completed | Mar-06 |
| | | | Installed additional fusing | Completed | Feb-06 |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
|------|------------|--------------|---|-------------------------------|------------------------------------|
| | | | 5 outages represent 88% of the total customer minutes. Outage causes: Regulator probler broken cutout/arrester, downed poles in high winds, vehicle accident and spacer cable problem during high winds/rain. | | |
| | | | Replace lightning arresters | Complete | Jun-06 |
| | | | Install additional tap fuses | Complete | Nov-06 |
| | | | Replace regulator | Complete | Oct-05 |
| | | 00704.4 | Install animal guard | Complete | Dec-05 |
| 9 | E Topton | 00724-1 | Replace cutout and arrester | Complete | Jan-06 |
| | | | Install disconnect switches | Complete | Mar-06 |
| | | | Install fault indicators | Complete | Mar-06 |
| | | | Install additional tap fuses | To be completed 4Q 2006 | |
| | | | Replace crossarms | To be completed 4Q 2006 | |
| | | | Install additional lightning arresters | To be completed 4Q 2006 | |
| | | | Reconfigure circuit to minimize exposure | To be completed 4Q 2007 | |
| | | | 4 outages represent 63% of the total custome (pole), trees (2) and wires down at multiple lo | | uipment problem |
| | | | Install/upgrade fusing | Complete | Jan-06 |
| | Birdsboro | boro 00756-1 | Pole replacements | Complete | Jan-06 |
| | | | Install animal guards | Complete | Mar-06 |
| | | | Replace group operated switch | Complete | Dec-05 |
| | | | Complete full-cycle tree clearing in 2006 | Complete | Mar-06 |
| | | | Main line patrol | Complete | Jul-06 |
| 10 | | | Crossarm / pole replacements identified on patrol | Complete | Jul-06 |
| | | | Install fuse/bypass switch | Complete | Sep-06 |
| | | | Install additional tap fuses | Complete | Oct-06 |
| | | | Review tree conditions and complete trimming identified | Complete | Oct-06 |
| | | | Widen main line right-of-way for improved access to vegetation management | To be completed in 2007 | |
| | | | Install single phase recloser | To be completed in 2007 | |
| | | | 5 outages represent 71% of total customer m vehicle accident, tree, 1 problem in undergrou problems (2 solid disconnects). | inutes. Outage Causes: forced | |
| | | | Install animal protection / underground fault indicators | Complete | Nov-05 |
| | | | Install fuse/bypass switch | Complete | Jan-06 |
| | | | Install additional fusing | Complete | Jan-06 |
| 11 | Carsonia | 00764-1 | Underground cable replacement in Elm Street Development | Complete | Mar-06 |
| | | | Pole replacement | Complete | Mar-06 |
| | | | Mainline switch upgrades | Complete | Mar-06 |
| | | | Install main line recloser | Complete | Oct-06 |
| | | | Complete full-cycle tree clearing in 2006 | To be completed 4Q 2006 | |
| | | | Install additional fusing | To be completed 4Q 2006 | |
| | | | Upgrade switches 300 to 600 ampere | To be completed 3Q 2007 | |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
|------|--------------|---------|---|---|------------------------------------|
| | _ | | Performance driven by trees caused outages. | | |
| | | | Perform preventive maintenance circuit patrol | Completed | Jul-06 |
| | | | Complete full-cycle tree clearing in 2006 | Completed | Aug-06 |
| 12 | Newberry | 00576-4 | Replace poles | Completed | Oct-06 |
| | | | Install two additional reclosers on the circuit | To be completed in 2007 |] |
| | | | Transfer portion of 576 line to 721 line | Completed | Oct-06 |
| | | | Repair tie switch | Completed | Aug-06 |
| | | | Repair equipment identified in circuit patrol | To be completed in 2007 | _ |
| | | | 2 outages represent 87% of total customer manifold winds/rain. | inutes. Outage causes: trees | and vines during |
| 40 | | 201021 | Review tree conditions and complete trimming identified | Complete | Sep-06 |
| 13 | Mohnton | 00123-1 | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Upgrade switches 300 to 600 amperes | To be completed 1Q 2007 | |
| | | | Install additional tap fuses | To be completed 1Q 2007 | |
| | | | Conductor repairs | To be completed 1Q 2007 | |
| | | | Animal, Line and equipment failure related outages account for 92% of total customer minutes. | | |
| 14 | Birchwood | 00623-3 | Install 3 phase recloser | Completed | Sep-06 |
| | | | Completed full-cycle tree clearing in 2006 | Completed | Sep-06 |
| | | | Installed additional fusing | Completed | Feb-06 |
| | | | Performance driven by tropical storm, car/pole | e accidents, and tree outages. | |
| | Yorkana | 00708-4 | Main line patrol | Completed | Jun-06 |
| 15 | | | Replace two poles on the circuit | To be completed 4Q 2006 | |
| | | | Review tree conditions and complete trimming identified | To be completed 4Q 2006 | |
| | | | 4 outages represent 61% of the total custome 2 equipment problems. | er minutes. Outage cause: 2 V | ehicle accidents, |
| | | | Upgrade tap fusing | Complete | Jan-06 |
| 16 | Friedensburg | 00769-1 | Upgrade main line fusing | Complete | Feb-06 |
| | | | Comprehensive circuit patrol | Complete | Jun-06 |
| | | | Complete full-cycle tree clearing in 2006 | In progress; 99% complete as of 9/30/06 | |
| | | | Performance driven by car/pole accident, a bi outages. | roken crossarm and animal con | tact caused |
| | | | Trimming accelerated one year | Completed | Jul-06 |
| 17 | Mountain | 00740-4 | Line maintenance patrol | Completed | Sep-06 |
| | | | Replace recloser and install animal protection | To be completed 4Q 2006 | |
| | | | Install overhead fault indicators | To be completed 4Q 2006 | |
| | | | 3 outages represent 72% of the total custome excavator error/tree. | or minutes. Outage causes: tre | e, lightning, and |
| | <u> </u> | | Completed full-cycle tree clearing in 2006 | Complete | Apr-06 |
| 18 | Birdsboro | 00757-1 | Install tap fuses | Complete | Dec-05 |
| | [| | Underground cable replacement | Complete | Apr-06 |
| | | | Install additional tap fuses | To be completed 1Q 2007 | |
| | | | Install additional main line fusing | To be completed 1Q 2007 | |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
|------|------------|---------------|---|-------------------------------------|------------------------------------|
| | | | 5 outages represent 84% of the total custome equipment problems (arrester, insulator, cutor | | hicle accident, 4 |
| | | | Arrester and insulator replacements | Complete | Dec-05 |
| | | | Overhead main line fault indicator installations | Complete | Dec-05 |
| 19 | N Lebanon | 00712-2 | Anchor and guy repairs | Complete | Feb-06 |
| | | | Upgrade main line switch | Complete | May-06 |
| | | | Recloser control upgrade | Complete | Jun-06 |
| | | | Crossarm / crossarm brace replacements | To be completed 1Q 2007 | |
| | | | Main line switch replacement | To be completed 1Q 2007 | |
| - | | | 4 outages represent 79% of the total custome tree, equipment problem (crossarm), and broken | | |
| | | | Upgrade line fuses | Complete | Nov-05 |
| 20 | S Hamburg | 00743-1 | Install main line disconnects and overhead fault indicators | To be completed 1Q 2007 | |
| | | | Pole replacements | To be completed 1Q 2007 | |
| | | | Install additional tap fuses | To be completed 1Q 2007 | |
| | | Barto 00706-1 | Tree caused outages represent 69% of the to | tal customer minutes. | |
| | Barto | | Replace poles | Complete | Jan-06 |
| | | | Replace 3-phase switch | Complete | Jan-06 |
| 21 | | | Inspect substation lightning protection | Complete | May-06 |
| | | | Install animal guards / additional fusing | Complete | Jun-06 |
| | | | Upgrade substation lightning protection | Complete | Oct-06 |
| | | | Complete full-cycle tree clearing in 2006 | To be completed 4Q 2006 | |
| | | | Lightning strikes, line failures, and falling tree minutes. | s accounted for 97% of the tota | l customer |
| 22 | Northwood | 00643-3 | Replace spacer cable | Complete by 4Q 2007 | |
| | | | Complete full-cycle tree clearing in 2006 | To be completed 4Q 2006 | |
| | l | | Install additional fusing | Complete by 4Q 2007 | |
| | | | 4 outages represent 90% of the total customs storms. | er minutes. Outage causes: Tr | rees (4) during |
| 23 | N Temple | 00542-1 | Complete full-cycle tree clearing in 2005 | Complete | Dec-05 |
| 20 | 14 Tomple | 00042 1 | Review tree conditions and complete trimming identified | Complete | Aug-06 |
| | | | Install additional tap fuse | To be completed 1Q 2007 | |
| 24 | Baldy | 00736-1 | 3 outages represent 87% of the total custome contacts (2). | er minutes. Outage causes: Tro | ee and animal |
| | | | Comprehensive circuit patrol | Complete | Jun-06 |
| | | | 95% of the total customer minutes were due t | to line failures and falling trees. | |
| 25 | Delabole | 00036-3 | Fuse re-coordination | To be completed in 2007 | |
| _0 | 25.325.0 | | Install 4 cutouts | To be completed in 2007 | |
| | | | Install single-phase recloser | To be completed in 2007 | |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
|------|--------------------|---------|---|---------------------------------|------------------------------------|
| | | | 5 outages represent 62% of the total customer minutes. Outage causes: lightning, trees (2 vehicle accident, and equipment problem (main line recloser). | | |
| | | | Pole replacements | Complete | Oct-05 |
| 20 | 1 | 00044.4 | Additional tap fuses | Complete | Nov-05 |
| 26 | Leesport | 00811-1 | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Install fuse/bypass switch | To be completed 1Q 2007 | |
| | | | Install additional tap fuses | To be completed 1Q 2007 | |
| | | | Pole replacement | To be completed 1Q 2007 | |
| | | | 1 outage represents 94% of the total custom- due to lightning. | er minutes. Outage cause: Equ | iipment damage |
| 27 | West | 00535.4 | Complete full-cycle tree clearing in 2006 | Complete | Mar-06 |
| 27 | Reading | 00525-1 | Additional animal protection | Complete | Mar-06 |
| | | | Conductor and transformer repairs | Complete | Jul-06 |
| ı | | | Install fuse/bypass switch | To be completed 1Q 2007 | |
| | | | Tree caused outages represent 55% of the to | otal customer minutes | |
| | Bern Church | | Install mainline overhead fault indicators | Complete | Mar-06 |
| 1 | | | Comprehensive circuit patrol | Complete | Jun-06 |
| 28 | | 00789-1 | Complete full-cycle tree clearing in 2006 | To be completed 4Q 2006 | |
| | | | Underground cable replacement in the Sunny Stopes development | To be completed 4Q 2006 | |
| | | | Install additional fusing | To be completed 4Q 2006 | |
| | | | Re-route circuit tap along roadway | To be completed 4Q 2006 | |
| 29 | 29 Shawnee 00899-3 | | Tree, vehicle and equipment failure related of minutes. | utages account for 93% of total | customer |
| | | | Installed additional fusing | Completed | Nov-05 |
| | | | 82% of the total customer minutes were due | to line failure and lightning. | |
| | | | Install recloser | Completed | Mar-06 |
| 30 | Bath | 00873-3 | Complete full-cycle tree clearing in 2006 | Completed | Mar-06 |
| 00 | ou | | Install 2 fused bypass structures | To be completed 4Q 2006 | |
| | | | Replace crossarms | Completed | Jun-06 |
| | | | Install additional fusing | Completed | Nov-05 |
| , | | | Tree-related outages represent 97% of the t | otal customer minutes. | |
| 31 | Pine Lane | 00713-1 | Animal guard installations | Complete | Oct-06 |
| ٥. | Time Earle | 00713-1 | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Install tap fuses | To be completed 1Q 2007 | |
| | | | 5 outages represent 71% of the total custom permanent problem locations identified durin and trees. | | |
| | | | Complete full-cycle tree clearing in 2005 | Complete | Oct-05 |
| | | | Install animal guard | Complete | Mar-06 |
| 32 | Bernville | 00786-1 | Install disconnect switches | Complete | Apr-06 |
| | | | Install fault indicators | Complete | Apr-06 |
| | | | Repair additional primary conductor | Complete | Jun-06 |
| | | | Install fuse/bypass switch | To be completed 4Q 2006 | |
| | | | Relocate off-road line section | To be completed 4Q 2006 | |
| | | | Comprehensive circuit patrol | To be completed 3Q 2007 | |

| Rank | Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
|------|--|-------------|---|-----------------------------------|------------------------------------|
| | | | Performance driven by equipment failure, lig | htning, and overload caused out | ages. |
| 33 | Windsor | 00316-4 | Re-coordinate line fuses | Completed | Jul-06 |
| | | | Perform preventive maintenance circuit patrol | To be completed 4Q 2006 | |
| | | | Equipment failures, animal contact, and ligh minutes. | tning accounted for 76% of the to | otal customer |
| 34 | Clearfield | 00000 | Complete full-cycle tree clearing in 2005 | Completed | Dec-05 |
| 34 | | eld 00632-3 | Installed fusing at various locations | Completed | Jun-06 |
| | | | Installed 6 animal guards | Completed | Jul-06 |
| | | | Replaced 2 failed transformers | Completed | Jul-06 |
| | | 00837-3 | Tree, line, and equipment failure account for | 96% of total customer minutes. | |
| 35 | Shawnee | | Complete full-cycle tree clearing in 2007 | Under contract | |
| | | | Resagged conductors | Completed | Nov-05 |
| | Tree caused outages (2) represent 73% of the total cus | | he total customer minutes. | | |
| 20 | Adamatana | 00754.4 | Review tree conditions and complete trimming identified | Complete | Aug-06 |
| 36 | Adamstown | 00754-1 | Install tap fuses | Complete | Sep-06 |
| | | | Install additional tap fuses | To be completed 3Q 2007 | |
| | | | Arrester replacements | To be completed 3Q 2007 | |

<u>Section 57.195(e)(5):</u> 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.

Outages by Cause

Outages by Cause - Penn Power

| 3Q 2006 12-Month Rolling | Penn Power | | | | |
|-----------------------------|---------------------|----------------------|-----------------------|------------------------------------|--|
| Cause | Customer Minutes | Number of Outages | Customers Affected | % Based on Number of Outages | |
| Animal | 1,147,219 | 317 | 13,956 | 9.23% | |
| Bird | 298,338 | 141 | 3,531 | 4.11% | |
| Contamination | 636 | 5 | 5 | 0.15% | |
| Customer Equipment | 63,444 | 8 | 1,123 | 0.23% | |
| Equipment Failure | 3,592,704 | 475 | 39,636 | 13.83% | |
| Fire | 97,731 | 9 | 401 | 0.26% | |
| Forced Outage | 483,616 | 59 | 10,785 | 1.72% | |
| Human Error - Company | 5,386 | 11 | 39 | 0.32% | |
| Human Error -Non-Company | 635,985 | 58 | 8,882 | 1.69% | |
| Ice | 0 | 0 | 0 | 0.00% | |
| Lightning | 1,042,059 | 234 | 5,450 | 6.81% | |
| Line Failure | 3,637,718 | 331 | 20,661 | 9.64% | |
| Object Contact with Line | 462,716 | 13 | 4,342 | 0.38% | |
| Other Electric Utility | 272 | 1 | 4 | 0.03% | |
| Other Utility-Non Electric | 220 | 1 | 1 | 0.03% | |
| Overload | 436,915 | 174 | 4,210 | 5.07% | |
| Previous Lightning | 37,013 | 22 | 294 | 0.64% | |
| Switching Error | 0 | 0 | 0 | 0.00% | |
| Trees/Non-Preventable | 5,495,807 | 416 | 31,608 | 12.11% | |
| Trees/Preventable | 81,643 | 11 | 739 | 0.32% | |
| Underground Dig-Up | 17,215 | 13 | 139 | 0.38% | |
| Unknown | 3,932,095 | 1,035 | 39,403 | 30.14% | |
| Vandalism | 1,199 | . 5 | 27 | 0.15% | |
| Vehicle | 2,118,071 | 93 | 15,397 | 2.71% | |
| Wind | 118,408 | 2 | 301 | 0.06% | |
| Total | 23,706,410 | 3,434 | 200,934 | 100.00% | |

<u>Proposed Solutions – Penn Power</u>

Unknown Outages

Since "outage-by-cause" analysis is one of the tools used to analyze and develop circuit and system reliability improvement plans, Penn Power stresses the need to accurately code outage causes; not to make educated guesses. Hence, if the troubleshooter cannot accurately identify the cause of an outage, that outage is coded with an unknown cause. To help limit the number of unknown outages, troubleshooters are directed to continue to patrol a circuit even after service has been restored, in an effort to identify the outage cause, as long as those patrols will not interfere with restoration of other customers.

Penn Power's engineering department reviews the circuits that have experienced multiple "Unknown" outages to determine if a single device may be causing the outages.

Equipment Failures

The number of equipment failures are mitigated by way of inspection and maintenance practices, such as circuit inspections and others as reported in Section 57.195(e)(6) herein. Further, distribution circuit protection coordination reviews and the enhanced circuit protection schemes that result will provide isolation of equipment failures and lessen the impact of outages to a smaller number of customers.

Penn Power's review has pointed to an increase in the number of outages from arresters and cutouts. Further analysis has identified an older gap-style and an expulsion-type arrester to be the main cause for the arrester outages and they are being replaced. Additionally, porcelain cutouts were found to be the major cause for cutout-related outages, resulting in the discontinued use of porcelain cutouts for new installations, and older porcelain cutouts are being replaced with new polymer cutouts when they fail.

Trees Non-Preventable

Penn Power's forestry department reviews the "Trees Non-Preventable" outages to see if there has been a high frequency of occurrences on the circuit. A patrol of the circuit is conducted to identify any trees that need to be trimmed or removed to avoid future outages. In addition, line and forestry department personnel patrol for danger trees as part of their daily work routine.

Outages by Cause – Penelec

| 3Q 2006 12-Month Rolling | Penelec | | | | |
|-----------------------------|------------------|----------------------|-----------------------|------------------------------------|--|
| Cause | Customer Minutes | Number of Outages | Customers Affected | % Based on Number of Outages | |
| Animal | 3,568,134 | 1,303 | 41,617 | 9.98% | |
| Bird | 678,828 | 303 | 7,308 | 2.32% | |
| Contamination | 59,018 | 71 | 575 | 0.54% | |
| Customer Equipment | 6 264,325 | 51 | 2,810 | 0.39% | |
| Equipment Failure | 29,319,399 | 3,737 | 294,258 | 28.63% | |
| Fire | 557,450 | 59 | 4,952 | 0.45% | |
| Forced Outage | 884,047 | 166 | 20,405 | 1.27% | |
| Human Error - Company | 142,053 | 31 | 8,027 | 0.24% | |
| Human Error -Non-Company | 668,908 | 134 | 9,053 | 1.03% | |
| Ice | 637,343 | 35 | 6,069 | 0.27% | |
| Lightning | 5,772,694 | 983 | 41,466 | 7.53% | |
| Line Failure | 12,911,874 | 940 | 102,873 | 7.20% | |
| Object Contact With Line | 392,815 | 56 | 3,182 | 0.43% | |
| Other Electric Utility | 209,660 | 68 | 3,693 | 0.52% | |
| Other Utility-Non Electric | 92,326 | 9 | 807 | 0.07% | |
| Overload | 2,718,576 | 296 | 26,768 | 2.27% | |
| Previous Lightning | 156,664 | 148 | 862 | 1.13% | |
| Switching Error | 35,625 | 8 | 3,387 | 0.06% | |
| Trees/Not Preventable | 37,342,399 | 2,032 | 204,788 | 15.57% | |
| Trees/Preventable | 703,627 | 128 | 5,125 | 0.98% | |
| Underground Dig-Up | 117,925 | 80 | 872 | 0.61% | |
| Unknown | 11,460,846 | 1,926 | 124,599 | 14.76% | |
| Vandalism | 53,921 | 5 | 396 | 0.04% | |
| Vehicle | 5,695,492 | 378 | 38,154 | 2.90% | |
| Wind | 2,498,317 | 104 | 10,520 | 0.80% | |
| Total | 116,942,266 | 13,051 | 962,566 | 100.00% | |

<u>Proposed Solutions – Penelec</u>

Equipment Failure

Penelec has identified porcelain cutout failures to be a large contributor to equipment failure outages and, as such, has been replacing porcelain cutouts with polymer cutouts as a preventive measure in conjunction with existing work plans.

The number of equipment failures are further mitigated by way of inspection and maintenance practices, such as circuit inspections and others as reported in Section 57.195(e)(6) herein. In addition, distribution circuit protection coordination reviews and the enhanced circuit protection schemes that result will provide isolation of equipment failures and lessen the impact of outages to a smaller number of customers.

Trees Non-Preventable

Penelec's forestry department reviews the "Trees Non-Preventable" outages to see if there has been a high frequency of occurrences on the circuit. A patrol of the circuit is conducted to identify any dead or diseased trees that need to be trimmed or removed to avoid future outages. In addition, line and forestry department personnel patrol for danger trees as part of their daily work routine.

Unknown Outages

A high percentage of the outages coded as "Unknown Outages" required the replacement of blown fuses. The implementation of coordination and protection reviews is expected to reduce the number of these types of outages.

Outages by Cause - Met-Ed

| 3Q 2006 12-Month Rolling | Met-Ed | | | | |
|-----------------------------|------------------|----------------------|-----------------------|------------------------------------|--|
| Cause | Customer Minutes | Number of Outages | Customers Affected | % Based on Number of Outages | |
| Animal | 7,733,489 | 1,791 | 73,541 | 18.64% | |
| Bird | 221,680 | 58 | 1,850 | 0.60% | |
| Contamination | 64,599 | 24 | 545 | 0.25% | |
| Customer Equipment | 273,669 | 22 | 7,894 | 0.23% | |
| Equipment Failure | 20,079,598 | 1,962 | 219,556 | 20.42% | |
| Fire | 869,486 | 24 | 5,910 | 0.25% | |
| Forced Outage | 2,318,547 | 103 | 43,057 | 1.07% | |
| Human Error - Company | 657,774 | 43 | 15,145 | 0.45% | |
| Human Error -Non-Company | 810,432 | 80 | 5,661 | 0.83% | |
| Ice | 190,536 | 5 | 1,880 | 0.05% | |
| Lightning | 9,201,728 | 699 | 46,497 | 7.27% | |
| Line Failure | 10,023,784 | 552 | 62,898 | 5.74% | |
| Object Contact With Line | 313,435 | 22 | 6,357 | 0.23% | |
| Other Electric Utility | 66,536 | 3 | 1,986 | 0.03% | |
| Other Utility-Non Electric | 336,473 | 4 | 1,272 | 0.04% | |
| Overload | 2,560,757 | 196 | 34,090 | 2.04% | |
| Previous Lightning | 384,042 | 49 | 3,093 | 0.51% | |
| Switching Error | 0 | 0 | 0 | 0.00% | |
| Trees/Not Preventable | 21,115,169 | 1,100 | 122,624 | 11.45% | |
| Trees/Preventable | 2,516,660 | 341 | 12,866 | 3.55% | |
| Underground Dig-Up | 397,373 | 56 | 2,324 | 0.58% | |
| Unknown | 11,430,667 | 2,083 | 118,850 | 21.68% | |
| Vandalism | 3,661,330 | 26 | 23,321 | 0.27% | |
| Vehicle | 9,695,217 | 357 | 76,361 | 3.71% | |
| Wind | 211,547 | 10 | 1,013 | 0.10% | |
| Total | 105,134,528 | 9,610 | 888,591 | 100.00% | |

Proposed Solutions – Met-Ed

Unknown

Met-Ed's engineering department reviews the circuits using the SAIDI circuit evaluation process and all outage cause codes are investigated at that time. Met-Ed stresses the need to accurately code outage causes; not to make educated guesses. Hence, if the troubleshooter cannot accurately identify the cause of an outage, that outage is coded with an unknown cause. To help limit the number of unknown outages, troubleshooters conduct a thorough patrol of the circuit prior to restore of the outage.

Equipment Failure

The number of equipment failures are mitigated by way of inspection and maintenance practices, such as circuit inspections and others as reported in Section 57.195(e)(6) herein. Further, distribution circuit protection coordination reviews and the enhanced circuit protection schemes that result will provide isolation of equipment failures and lessen the impact of outages to a smaller number of customers. In addition, Met-Ed's engineering department conducts a multi-operation device review each month to identify equipment failures and equipment that is causing repetitive outages and plans accordingly to repair or replace equipment.

Animal

Animal guards are installed on equipment where a high frequency of animal-related outages are experienced. When possible, animal guards are installed at the time service is restored for the outages caused by animals. Additionally, Met-Ed requires animal guards to be installed on all new overhead and underground riser installations.

<u>Section 57.195(e)(6):</u> 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).

T&D Inspection and Maintenance Programs

| <u> </u> | | | Pe | nn Powe | er | - | Penelec | | | Met-Ed | |
|--------------|----------------------------------|---------------------|----------|-------------------------|-------------------|---------|---------|--------------------|---------|--------|----------------------|
| Inspection a | nd Maintena 2006 | nce | Planned | Com | pleted | Planned | Com | pleted | Planned | Com | pleted |
| | | | Annual | 3Q | YTD | Annual | 3Q | YTD | Annual | 3Q | YTD |
| Forestry | Transmis (Miles | | 30 | 20 | 78 ^(a) | 247 | 223 | 405 ^(a) | 115 | 41 | 54 |
| Toresay | Distribut (Miles | | 800 | 243 | 475 | 4,397 | 992 | 3,167 | 1,248 | 416 | 1,745 ^(a) |
| Transmission | Aerial Pa (2 per ye | | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 |
| Hansinission | Groundl Inspectio | | 536 | 193 | 380 | 3,356 | 1,884 | 1,884 | 618 | 510 | 510 |
| | Gener Inspection | | 1,020 | 255 | 765 | 5,505 | 1,401 | 4,131 | 2,892 | 715 | 2,162 |
| Substation | Substation Transform | ners | 125 | 13 | 125 | 768 | 149 | 767 | 301 | 118 | 214 |
| Brea | Breake | rs | 126 | 44 | 96 | 586 | 124 | 551 | 189 | 3 | 67 |
| | Relay Scheme | emes | 142 | 21 | 100 | 1,452 | 447 | 1,087 | 747 | 116 | 401 |
| | Capaci Inspecti | | 784 | 6 | 784 | 8,147 | 0 | 8,147 | 4,024 | 0 | 4,024 |
| | Pole Inspe | ctions | 12,820 | 8,130 | 11,842 | 59,798 | 0 | 24,590 | 30,150 | 1,487 | 26,594 |
| | | - | Planned | Com | pleted | Planned | Com | pleted | Planned | Com | pleted |
| | - | 1Q | 606 | 6 | 06 | 1,464 | 1,4 | 464 | 911 | g | 911 |
| Distribution | Recloser Inspection | 2Q | 606 | 6 | 606 | 1,803 | 1, | 803 | 911 | ç | 11 |
| Distribution | (inspected quarterly) | 3Q | 618 | 6 | 518 | 1,902 | 1,5 | 902 | 903 | g | 903 |
| | quarterry | 4Q | | | | | _ | · | | | |
| | Radio- Controlled Switches | 1st half 2006 | Penn Pov | Penn Power has no radio | | 832 | 83 | 32 ^(c) | 16 | | 16 |
| | (inspected twice per year) | 2nd half 2006 | | iled swite | | 915 | 2 | 89 | 17 | | 4 |

⁽a) Actual tree-trimming exceeds plan due to work from future years that has been accelerated.

- Penn Power includes 138 and 69 kV
- Penelec includes 345, 230, 138, and 115 kV
- ♦ Met-Ed includes 230, 115 and 69 kV

General Note:

Unless specified otherwise, all inspections are reported on a unit basis rather than on a location basis.

⁽b) Transmission groundline inspections:

⁽c) 741 completed in the first half of 2006 and 91 completed in 3rd guarter.

<u>Section 57.195(e)(7):</u> 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).

Budgeted vs. Actual T&D Operation & Maintenance Expenditures

| T&D O&M (3rd Quarter and YTD September 2006) | | | | | | | | |
|--|------------------------|------------|------------|------------|------------|------------------|--|--|
| Company | PUC Category | 3Q Actual | 3Q Budget | YTD Actual | YTD Budget | Annual Budget | | |
| | Corrective Maintenance | 208,082 | 234,424 | 731,222 | 791,180 | 1,048,965 | | |
| | Preventive Maintenance | 190,706 | 126,058 | 521,928 | 424,272 | 560,517 | | |
| Penn Power | Storms | (45,784) | 177,720 | 229,773 | 513,934 | 633,134 | | |
| Penn Power | Vegetation Management | 521,954 | 708,284 | 1,564,192 | 2,086,603 | 2,753,606 | | |
| ! | Miscellaneous | 1,326,306 | 505,315 | 3,216,563 | 1,805,901 | 2,453,730 | | |
| | Operations | 429,225 | 649,440 | 1,838,617 | 1,680,983 | 2,208,569 | | |
| Penn Power T | otal | 2,630,489 | 2,401,241 | 8,102,295 | 7,302,873 | 9,658,521 | | |
| | Corrective Maintenance | 1,953,947 | 1,292,592 | 5,480,713 | 3,877,776 | 5,170,367 | | |
| | Preventive Maintenance | 892,373 | 830,616 | 3,558,603 | 2,455,428 | 3,306,214 | | |
| | Storms | 804,272 | 1,340,968 | 2,056,973 | 3,613,657 | 4,516,002 | | |
| Penelec | Vegetation Management | 3,341,967 | 3,147,769 | 8,662,879 | 8,646,943 | 11,195,746 | | |
| | Miscellaneous | 3,888,276 | 3,626,484 | 8,171,328 | 11,108,824 | 14,884,096 | | |
| | Operations | 5,237,659 | 4,964,924 | 16,170,315 | 14,265,317 | 18,847,810 | | |
| Penelec Total | | 16,118,494 | 15,203,353 | 44,100,811 | 43,967,945 | 57,920,235 | | |
| - | Corrective Maintenance | 1,172,967 | 2,585,087 | 3,781,872 | 7,748,774 | 10,508,876 | | |
| | Preventive Maintenance | 541,657 | 917,681 | 2,034,391 | 2,766,286 | 3,686,071 | | |
| 88-4 F-I | Storms | 2,866,316 | 1,085,574 | 5,150,840 | 3,276,839 | 4,382,530 | | |
| Met-Ed | Vegetation Management | 2,051,543 | 2,375,916 | 7,744,930 | 7,127,747 | 9,503,663 | | |
| | Miscellaneous | 3,750,739 | 1,013,818 | 8,236,299 | 3,070,495 | 4,064,797 | | |
| | Operations | 3,671,565 | 4,040,604 | 11,193,902 | 11,784,784 | 15,790,933 | | |
| Met-Ed Total | | 14,054,787 | 12,018,680 | 38,142,234 | 35,774,925 | 47,936,870 | | |
| Grand Total | | 32,803,770 | 29,623,274 | 90,345,340 | 87,045,743 | 115,515,626 | | |

General Notes:

[•] Penn Power's O&M dollars do not include the costs associated with the O&M work conducted on the transmission assets owned by American Transmission Systems, Inc., a subsidiary of FirstEnergy Corp.

[·] See Attachment A for O&M and Capital category definitions.

O&M data is consistent with preliminary FERC data with the exception of the expenses related to PJM and MISO, of which the Companies are Transmission Owner members. Removed MISO Network services expenses from Penn Power (actual and budget).

<u>Section 57.195(e)(8):</u> 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).

Budgeted vs. Actual T&D Capital Expenditures

| Company | PUC Category | 3Q Actual | 3Q Budget | YTD Actual | YTD Budget | Annual Budget |
|---------------|-----------------------|------------|------------|-------------|-------------|------------------|
| | New Business | 2,106,258 | 1,566,935 | 5,542,276 | 4,702,226 | 6,381,253 |
| | Reliability | 837,345 | 1,096,889 | 3,749,241 | 3,287,457 | 4,411,703 |
| Penn Power | Capacity | 549,502 | 600,898 | 2,531,159 | 2,923,425 | 3,312,822 |
| (21) | Miscellaneous | 323,359 | 263,007 | 814,476 | 879,008 | 1,011,970 |
| | Forced | 770,132 | 962,817 | 2,041,097 | 2,571,858 | 3,435,830 |
| | Vegetation Management | 3,784 | 43,967 | 27,271 | 132,283 | 179,605 |
| Penn Power T | otaí | 4,590,380 | 4,534,513 | 14,705,520 | 14,496,257 | 18,733,183 |
| | New Business | 5,599,250 | 2,185,665 | 16,042,568 | 6,319,370 | 8,601,444 |
| | Reliability | 5,323,891 | 6,323,077 | 40,340,809 | 20,236,091 | 26,309,688 |
| Penelec "" | Capacity | 2,323,695 | 507,464 | 3,741,476 | 1,963,830 | 2,488,931 |
| | Miscellaneous | 1,398,765 | 3,351,406 | 4.975,742 | 10,109,937 | 13,117,619 |
| | Forced | 5,194,014 | 7,752,520 | 13,763,111 | 22,639,949 | 30,099,35 |
| | Vegetation Management | 483,277 | 398,926 | 1,177,912 | 1,183,720 | 1,594,439 |
| Penelec Total | | 20,322,892 | 20,519,058 | 80,041,618 | 62,452,897 | 82,211,47 |
| | New Business | 6,801,788 | 5,726,209 | 20,630,351 | 16,889,751 | 22,720,59 |
| | Reliability | 3,523,869 | 6,921,871 | 17,032,631 | 20,314,329 | 27,232,17 |
| Met-Ed | Capacity | 3,808,646 | 2,433,021 | 15,458,637 | 16,738,844 | 19,349,90 |
| 11101 24 | Miscellaneous | 1,105,808 | 1,520,612 | 3,634,096 | 4,332,226 | 5,399,15 |
| | Forced | 2,476,870 | 2,103,114 | 7,475,675 | 6,135,556 | 5,938,55 |
| | Vegetation Management | 174,661 | 84,595 | 361,155 | 246,627 | 331,79 |
| Met-Ed Total | | 17,891,642 | 18,789,422 | 64,592,545 | 64,657,333 | 80,972,17 |
| Grand Total | | 42,804,914 | 43,842,993 | 159,339,683 | 141,606,487 | 181,916,837 |

Penn Power's capital dollars do not include the costs associated with capital work conducted on the transmission assets owned by American Transmission Systems, Inc., a subsidiary of FirstEnergy Corp.

(b) Paneloc's higher than budgeted actual actu

General Notes:

- · See Attachment A for O&M and Capital category definitions.
- · Capital dollars are net of Contribution In Aid of Construction ("CIAC") amounts and exclude facilities costs (i.e. buildings).

⁽b) Penelec's higher than budgeted actual costs reflects its focus on completing reliability improvement projects using accelerated reliability improvement funds in both the 1st and 2nd Quarters of 2006.

<u>Section 57.195(e)(9):</u> 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).

Staffing Levels

| Penn Power | | | | | | | |
|--|-------|----|----|----|---|--|--|
| Staffing Levels - T&D Operations and Maintenance | | | | | | | |
| Line Department 1Q 2006 2Q 2006 3Q 2006 4Q 2006 | | | | | | | |
| Leader / Chief | | 32 | 32 | 31 | | | |
| Lineman | | 43 | 45 | 47 | | | |
| Substation Department | | | | | | | |
| Technician | | 6 | 6 | 6 | | | |
| Construction & Maintenance | (C&M) | 14 | 14 | 14 | | | |
| | Total | 95 | 97 | 98 | 0 | | |

| Penelec | | | | | | | |
|--|-------|-----|-----|-----|---|--|--|
| Staffing Levels - T&D Operations and Maintenance | | | | | | | |
| Line Department 1Q 2006 2Q 2006 3Q 2006 4Q 2000 | | | | | | | |
| Leader / Chief | | 153 | 146 | 143 | | | |
| Lineman | | 145 | 140 | 157 | | | |
| Substation Department | | | | | | | |
| Technician | | 0 | 0 | 0 | | | |
| Construction & Maintenance (C | &M) | 73 | 76 | 79 | | | |
| | Total | 371 | 362 | 379 | 0 | | |

Penelec Substation Technician work is performed by C&M employees.

Penelec had the following adjustments to their Line and Substation Department staff in the 3rd quarter:

- Retirements of 2 employees.
- Hired 1 graduate of the Power Systems Institute ("PSI").
- Hired 5 Linemen.
- Hired 5 Substation Technicians.
- Started 8 incumbent employees in an internal Line Apprenticeship Program.

| Met-Ed Staffing Levels - T&D Operations and Maintenance | | | | | | |
|---|-----|-----|-----|---|--|--|
| | | | | | | |
| Leader / Chief | 57 | 57 | 59 | | | |
| Lineman | 150 | 152 | 156 | | | |
| Substation Department | | | | | | |
| Technician | 16 | 14 | 15 | = | | |
| Construction & Maintenance (C&M) | 47 | 45 | 55 | - | | |
| Total | 270 | 268 | 285 | 0 | | |

Met-Ed had the following adjustments to their Line and Substation Department staff:

- Transferred 4 employees from Meter Reading into the Line Department as Apprentices and enrolled in the PSI program.
- Hired 2 Journeyman Linemen
- Started 11 incumbent employees in a Substation Apprenticeship Program.

<u>Section 57.195(e)(10):</u> Quarterly and year-to-date information on contractor hours and dollars for transmission and distribution operation and maintenance.

Contractor Expenditures

This portion of the report is confidential per docket L-000301061

<u>Section 57.195(e)(11):</u> Monthly call-out acceptance rate for transmission and distribution maintenance workers presented in terms of both the percentage of accepted calls-out 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.

Call-Out Acceptance Rate

This portion of the report is confidential per docket L-000301061

Call-Out Response

This portion of the report is confidential per docket L-000301061

Settlement Agreement Provisions

Pursuant to the Reliability Settlement Agreement at Docket No. I-00040102, two additional reporting requirements are included with the Companies' Quarterly Reliability Report:

- Connectivity Rate
- Local Reliability Meeting Updates

Settlement Provision #1: The FirstEnergy Companies will provide customer connectivity rates as part of quarterly reliability reporting to the Commission beginning with the 3rd quarter 2004 report. Each of the Companies will achieve at least a 98% connectivity rate by the end of 2005. The Companies will strive to achieve a 99% connectivity rate but will maintain at least a 98% connectivity rate. Customer connectivity is defined as the percentage calculated by dividing the number of customers that are connected to a device within the Outage Management System (OMS) by the number of billable accounts and sub-accounts (other than group billed accounts) in the customer information system. Customers connected to a device in OMS are those connected in such a way that the electrical network may be traced for outage prediction purposes from the customer to a distribution circuit breaker.

Connectivity Rate

The Companies are maintaining a connectivity rate of 98.9% or higher.

| Connectivity (%) | Penn Power | Penelec | Met-Ed |
|------------------|------------|---------|--------|
| 1Q 2006 | 99.0% | 99.0% | 99.2% |
| 2Q 2006 | 99.1% | 99.1% | 99.3% |
| 3Q 2006 | 98.9% | 99.0% | 99.2% |
| 4Q 2006 | | | _ · |

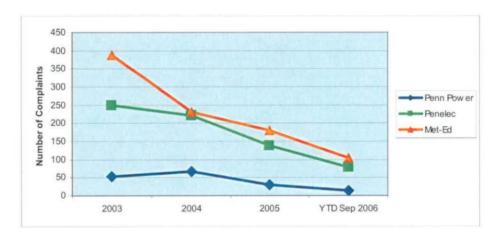
Settlement Provision #8: The FirstEnergy Companies will conduct local meetings about reliability, with notices targeted to areas previously reporting numerous power outage or reliability complaints, and which focus on updating the customers on reliability projects and circuit performance. These local meetings will begin by October 2004 and summaries of the meetings will be provided in the FirstEnergy Companies' quarterly reliability reports to the Commission. The summaries will contain a description of the action plans identified and dates for implementation of the planned actions as a result of the meetings.

Local Reliability Meetings

Companies are required under the PA Settlement Agreement (Provision #8 above) to conduct local reliability meetings within their regions. In the 3rd quarter of 2006 the Companies conducted the following number of reliability meetings: 4 for Penn Power, 1 for Penelec and 3 for Met-Ed. One additional meeting, the details for which were not available at the end of the 2nd quarter, is included for Penn Power.

The local reliability meetings have been conducted on both a reactive and proactive basis. Since the meetings commenced in November 2004, there has been a steady decline in the total number of meetings. This steady decline can potentially be attributed to the following factors:

- The reliability performance improvement demonstrated to date and as described in Section e(2) of this report.
- The Companies' increased and improved communication with customers through the utilization of reverse interactive voice response ("IVR").
- Reduction in service reliability-related customer complaints (see graph below).



Public meeting reports are provided in Attachment B1 and B2 of this report.

- Attachment B1 includes reports on meetings conducted in the 3rd quarter of 2006.
- Attachment B2 includes reports on meetings conducted previous to the 3rd quarter of 2006 and for which there are action items that are still outstanding or were completed in the 3rd quarter.

Once all action items have been completed, the meeting report will be archived and no longer attached to this quarterly report.

ATTACHMENT A

Definitions of T&D O&M and Capital Categories

Definitions of T&D O&M and Capital categories:

T&D O&M

<u>Corrective Maintenance</u> – Program or non-program O&M costs associated with the unplanned repair and maintenance of the system, which may or may not be scheduled. This excludes any capital work resulting from corrective maintenance.

<u>Preventive Maintenance</u> – Program or non-program O&M costs associated with the planned repair and maintenance of they system, which may or may not be scheduled.

Storms – Costs associated with all weather-related conditions.

<u>Vegetation Management</u> – Costs associated with planned or unplanned tree trimming and vegetation management program.

<u>Miscellaneous</u> (Misc.) – Costs associated with miscellaneous type categories that can include, but are not limited to, damage claims, joint use, and purchase and upkeep of tools.

<u>Operations</u> – O&M costs associated with the activities related to managing and directing the operations of the Company.

T&D Capital

<u>New Business</u> – Costs associated with providing service to new customers (i.e. residential, commercial, industrial, and streetlighting).

Reliability – Costs incurred to improve/reinforce the reliability of the infrastructure assets.

<u>Capacity</u> – Costs associated with projects required to improve, relieve, or correct an existing or projected voltage or thermal condition.

<u>Miscellaneous (Misc.)</u> – Costs associated with miscellaneous type categories that can include, but are not limited to, damage claims, joint use, and purchase and upkeep of tools.

<u>Forced</u> – Costs associated with projects that are required usually by federal or state regulatory bodies. This category can also include costs associated with highway and bridge projects or that are related to weather conditions.

<u>Vegetation Management</u> - Costs associated with planned or unplanned tree trimming and vegetation management program.

ATTACHMENT B1

Local Reliability Meeting Reports

Meetings Conducted in the 3rd Quarter 2006

Public Meeting Report

Meeting Information

Municipality/Group:

Jackson Township

140 Magill Road Zelienople, PA 16063

Date/Time:

Location:

June 26, 2006 at 10:00 a.m.

Penn Power Circuit:

W-732

Penn Power Attendees:

Bart L. Spagnola, Area Manager Timothy Sapienza, Line Supervisor

Public Attendees:

Richard Crown, Township Manager Gary Goehring, Township Supervisor Shirl Mawhinney, Office Administrator

Background / Issues

I arranged this meeting as a basic visit to communities to discuss issues, explain reliability work, storm process information and street lights. Tim explained the distribution upgrade work we have done this year and what is proposed for the remainder of the year. I discussed tree trimming work being done in the Jackson Township area and circuit inspections to prioritize circuits that need improvement. We also discussed work that has been completed on transmission lines in the area and how we use helicopters to find damaged and faulty equipment. We continue to install reclosers to sectionalize the circuits to minimize the amount of customers out during storms. We discussed our storm process and reviewed all the contact numbers in case of emergencies. Mr. Crown feels that our reliability and outage time has improved over the last year and is very satisfied with the service our employees provide. I left several of my business cards and thanked them for giving us their time.

Action Plan

| Item: | Assigned To: | Date Due: | Date Completed: |
|------------------------|--------------------|-----------|-----------------|
| Circuit Inspections | Jim Visingardi | | 5/06 |
| Tree Trimming - W-732 | Davey Tree Service | | 6/06 |
| Recloser Installations | Jim Visingardi | | 6/06 |

Note: This meeting was conducted in the 2nd quarter, but the report summary was not available at the end of the quarter.

Public Meeting Report

Meeting Information

Municipality/Group: Lawrence County Economic Development Corporation

Location: New Castle, Pa.

Date/Time: July 19, 2006 at 12:00 p.m.

Penn Power Circuit:

Penn Power Attendees: Bart L. Spagnola, Area Manager

Public Attendees: Linda Nitch, Director - R. Delsignor, Board President - G. Cilli,

Attorney and several other Board Members.

Background / Issues

This was a monthly Lawrence County Economic Development Board Meeting. After the meeting several board members asked about reliability and why there seems to be fewer outages this year than last year. I explained that this was due, in large part, to the work that has been done by our Line Department, as well as outside contractors on the transmission lines. I explained the process of inspecting circuits to prioritize them from best to worst performing. And that once inspected, a work order is prepared and work begins to upgrade the circuit. In the New Castle area, a lot of work has been completed over the last year to improve reliability. As of the end of the second quarter of this year capacitor inspections and replacements are complete. Transmission upgrades on circuits Y-188 and Y-107 have been completed in the New Castle Area and work on other circuits is underway. Several transmission switches have either been repaired or replaced to help restore power quickly during storms. Penn Power is continuing upgrades on our system to help improve service and reliability to our customers. The group thanked me for the update on reliability in the New Castle Area and for the work being done to help this group promote this area to prospective companies.

| Item: | Assigned To: | Date Due: | Date Completed: |
|------------------------------|--------------|-----------|-----------------|
| None Work has been completed | | | |

Public Meeting Report

Meeting Information

Municipality/Group: Neshannock Township Supervisors

Location: 3131 Mercer Road, New Castle, PA 16105

Date/Time: September 9, 2006 at 12:00 p.m.

Penn Power Circuit: Y-194

Penn Power Attendees: Bart L. Spagnola, Area Manager

Public Attendees: Gale Measel, Supervisor and John DiCola, Supervisor

Background / Issues

This meeting was scheduled at the request of Gale Measel, Township Supervisor. The concerns they have are regarding two industrial parks in the township: Northgate and RIDC. The township is working with two out-of-state companies that are in the process of relocating their operations and Neshannock Township is on their short list(s). Also, one of the existing companies in Northgate is to expand their operation to include three new furnaces. Two years ago there were outage problems in this area due to increased load in a growing community. Throughout 2005 and the first half of 2006 we have updated this circuit by increasing the wire size (to #336 wire) from our Walmo Substation into these industrial parks. We have also reviewed the entire circuit to insure that poles, insulators and cut-outs are in good condition and operating properly. In June of this year we replaced two switching motors that had given the company problems in recent storms. The work that has been completed on this circuit has improved the reliability and increased capacity to accommodate future growth. We reviewed the storm process, including contact numbers for myself and support representatives. I left a Key Account Priority Sheet with account numbers for all their services, as well as an Emergency Hot Line number if they cannot reach our support representative or me. I informed them that we have plans to upgrade our Harbor Substation to support the growth in a new industrial park that is breaking ground this month in their township. That upgrade will allow us to shift load from the existing substations supporting Northgate and RIDC to the Harbor Substation, which will be evaluated as customers locate in the new industrial park. As of this time we can provide reliable power for several additional customers. The upgrades will allow Penn Power to continue to provide reliable service to this growing community.

| Item: | Assigned To: | Date Due: | Date Completed: |
|------------------------------------|--------------|-----------|-----------------|
| None - The work has been completed | | | |

Public Meeting Report

Meeting Information

Municipality/Group: State Representative Michael Veon's Staff

Location: 1122 Seventh Avenue, Beaver Falls, P A. 15010

Date/Time: September 18, 2006 at 10:00 a.m.

Penn Power Circuit: D-536

Penn Power Attendees: Bart L. Spagnola, Area Manager

Public Attendees: Thomas Woodske, Chester Orelli, Daniel Woodske

Background / Issues

I requested this meeting after receiving a call from Representative Veon's office regarding outages in the Darlington/Chippewa area. The recent outages were the result of storms that passed through the area. I reviewed system upgrades that Penn Power has completed this year and the positive impact to reliability that these improvements have made. One of the projects completed was to add fusing devices to Circuit D-536 in Darlington. By adding these devices we can sectionalize the circuit and eliminate large numbers of customers being without service for an extended period of time. As an example, I shared that we can isolate the fault and restore most of the customers before repairs are done, thereby reducing both the number of customers affected by an outage and outage minutes. I reviewed the storm and outage response plan and the importance of customers calling the toll-free number as quickly as possible to report an outage. I requested that they explain the importance of having customers contact either a Customer Support Representative or me directly before filing a complaint so that we can address the issue promptly. Most customers are looking for an answer to a utility problem, which can be provided by one of our Customer Support Representatives or me. Before leaving I passed out my business cards and a list of contact numbers to Representative Veon's staff.

| Item: | Assigned To: | Date Due: | Date Completed: |
|--|--------------|-----------|-----------------|
| No action needed at this time | | | |
| Representative Veon has no issues with | | | |
| Penn Power or First Energy Corp. | | | |

Public Meeting Report

Meeting Information

Municipality/Group:

Mercer County Commissioner

Location:

Mercer County Courthouse

Date/Time:

September 5, 2006

Penn Power Circuit:

Various

Penn Power Attendees:

Tony Zucco - Penn Power Area Manager · Brian Beader - Mercer County Commissioner

Public Attendees:

Michelle Brooks - Mercer County Commissioner

Background / Issues

Brian Beader had met with me regarding an explanation of deregulation. Following the meeting he asked if we could talk about the storm restoration process and reliability in general. Brain's concerns included how Penn Power would address reliability/restoration efforts and what changes, if any, would occur in January 2007 as a result of POLR. I explained that, regardless of the supplier, Penn Power restoration efforts would not change and that our restoration priority is to restore customers as soon as possible. I explained that the provider/supplier is of no consequence in this process. I also took the opportunity to inform him of our tree trimming efforts, how we patrol our circuits, identify and fix conditions we find, and how we use out-of-town crews, if necessary, to restore service in a timely fashion. Brian was very appreciative of the explanation and commented on the good effort we had made this summer in "keeping the lights on".

| Item: | Assigned To: | Date Due: Date Completed: |
|------------------|--------------|---------------------------|
| Nothing required | | |

<u>Penelec</u>

Public Meeting Report

Meeting Information

Municipality/Group: Fairview Industrial Park

Location: American Turned Products
Date/Time: July 7, 2006 at 11:00 a.m.

Penelec Circuit: Fairview South Circuit
Penelec Attendees: Dan Heher & Jim Wimer

Public Attendees: Representatives from the Companies comprising the Park & ECIDA

Background / Issues

Businesses in the Fairview Industrial Park have experienced frequent outages in the 2nd quarter of 2006. The causes were due to the following: relay problems in the substation, animal caused outages, and loading problems. In addition, a new step-down bank (34.5kV to 12kV) will be brought online in the 4th quarter, which will alleviate the loading issue and improve reliability for the Fairview Industrial Park.

| Item: | Assigned To: | Date Due: | Date Completed: |
|---|--------------------|-----------|-----------------|
| Replaced a breaker in the substation, installed additional animal guards, and reviewed fuse coordination. | Line & Engineering | July '06 | July 2006 |
| Installed a new step-down bank (34.5kV to 12kV). | | 4Q | |

MetEd

Public Meeting Report

Meeting Information

Municipality/Group: Union Township

Location: 177 Center Road Douglassville, PA

Date/Time: July 31, 2006 at 9:00 a.m.

MetEd Circuit: 00756-00757

MetEd Attendees: Marybeth Smialek, Ron Mohn, Dave Hillanbrand

Public Attendees: Cindy Schweitzer Township Manager

Background / Issues

Eight customers from Union Township area contacted the Township Manager regarding frequent outages and capacity concerns. The township chose to act as the intermediary between Met-Ed and the customers. Met-Ed provided information on all outages on the two circuits serving the area as well as work that has been completed or is planned for the remainder of this year.

A two mile stretch of this circuit passes through a heavily forested and mountainous section of the national park and Pennsylvania State Forest land. The rugged area includes many large trees over 60 feet tall that overhang the right-of-way. Expansion of this right-of-way would greatly improve reliability to these customers. Approval would be required from the Pennsylvania Department of Conservation and Natural Resources and the National Park Service - U.S. Department of the Interior. It was agreed that Met-Ed would pursue obtaining this approval.

A single complaint was also discussed regarding Gordon Nairn, who had been experiencing "brown-outs".

| Item: | Assigned To: | Date Due: | Date Completed: |
|---|-------------------|-----------|-----------------|
| Serviceman to investigate and | Dave Hillandbrand | 8/7/06 | 8/1/2006 |
| remediate Mr. Nairn's concerns | | | |
| Hold meeting with US Dept of Interior | | 9/30/06 | 9/27/2006 |
| and PA Dept of Conservation and | | | |
| Natural Resources to discuss additional | | | |
| tree trimming and an access road | | | |
| through the two mile forested section | | | |
| of the circuit | | | |
| Install fuse bypass | | 1/1/07 | 9/21/2006 |
| Install 7 additional fuses | | 1/1/07 | |
| Install fuses at 16 locations | | 1/1/07 | |

<u>MetEd</u>

Public Meeting Report

Meeting Information

Municipality/Group: Springettsbury and Hellam Township

Location: Cooper Tools -3990 E. Market St. -York

Date/Time: August 11, 2006

MetEd Circuit: West Hellam Substation

MetEd Attendees: C. Wagman Engineer, S. Iseman Engr, R. Stout Manager of

Substations, Walt LaSota, Director of Operations, R. Schroth, Director

of Customer Support

Public Attendees: G. Malstrom -Cooper Tools, Galen Hake - American Hydro, M.

Lehman -Flinchbaugh Engrs, W. Tollinger-Flinchbaugh Engrs, D. Hinganbotham- New Standard Corp., J. Strine- York Water Co., J. Winters-Sunoco Corrflux, D. Gauntlett-Cooper Tools, R. Dick-Cooper Tools, S. Udit-Central York School Dist., K. Masch-Cooper Tools, L.

Melhorn-H&H Castings, R. Vanderberg-Cooper Tools

Background / Issues

On Sunday, June 18, Met-Ed experienced equipment failure at West Hellam Substation, interrupting service to customers in Springettsbury and Hellam Townships. On June 19, there was an additional failure, interrupting some of the customers a second time. Met-Ed installed a portable substation to provide power to the area, allowing us to return our delivery system to its normal configuration. On Tuesday, July 11 at approximately 12:53 p.m., the portable substation tripped off-line. After shifting a portion of the customers to alternate sources, the transformer was energized, restoring electric service to all affected customers.

Met-Ed Customer Support Representatives arranged this "town meeting" for industrial and business customers affected by these incidents to provide more detail about Met-Ed's investigation and the preventive measures that are being implemented to prevent future occurrences. Cooper Tools, one of the affected customers, hosted the meeting in their conference facility. The town meeting featured presentations by Chris Wagman and Steve Iseman of Met-Ed Customer Support; Bob Stout, Met-Ed Manager of Substation Services; Walt LaSota, Met-Ed Director of Operation Support; and Rick Schroth, Met-Ed Director of Customer Support.

| Item: | Assigned To: | Date Due: | Date Completed: |
|---|---------------------|-----------|-----------------|
| Check and correct all relay and instrument calibrations | Substation Services | 9/8/06 | 9/5/06 |
| Update all affected parties when substation is returned to its normal status. | Customer Support | 10/31/06 | |

<u>MetEd</u>

Public Meeting Report

Meeting Information

Municipality/Group: Lari-Bel Acres

Location: New Tripolli Fire House

Date/Time: September 7, 2006 at 7:00 p.m.

MetEd Circuit: 749-1

MetEd Attendees: Andy Hunter, Dennis Yerger, Marybeth Smialek

Public Attendees: 8 homeowners in development

Background / Issues

Customers have experienced 7 outages in past year; 6 of these were due to underground failures. The customers requested a meeting to determine a plan to correct the situation. The meeting was held at a local fire hall, with representations from all of the households affected. The items discussed included reliability, safety of the above ground temporary cables, repairs to the faults, voltage fluctuations and estimated meter readings, were raised at the meeting.

| Item: | Assigned To: | Date Due: | Date Completed: |
|-------------------------------------|------------------|-----------|-----------------|
| Mark temporary cable | B. Balthaser | 9/8/06 | 9/8/06 |
| Replace existing cable | B. Balthaser | 11/06 | |
| Obtain estimates for replacement of | B. Balthaser | 10/06 | 9/29/06 |
| cable | | | |
| Install Recording Volt Meter | Al Nerino | 10/06 | 10/6/06 |
| Determine cause for estimated bills | Marybeth Smialek | 9/8/06 | 9/8/06 |

ATTACHMENT B2

Local Reliability Meeting Reports

Meetings Conducted Prior to the 3rd Quarter 2006

With Updated or Outstanding Action Items

Public Meeting Report

Meeting Information

Municipality/Group: Pine Twp. Planning Commission

Location: 230 Pearce Mill Road

Wexford, Pa. 15090

Date/Time: February 13, 2006 at 7:30 p.m.

Penn Power Circuit: Richard Substation - Circuits D-743 & D-745

Penn Power Attendees: Bart L. Spagnola, Area Manager

Dave Wareham, Real Estate

Public Attendees: P. Zvolio, M. Hansen, T. Smith, V. Zappa, J. Dennison and J.

Lombardo - Planning Commission

Background / Issues

Dave Wareham, FE Real Estate, and I attended the February Pine Township Planning Commission meeting to present blueprints and design of our proposed Wexford Substation along Rt. 19. When we completed our presentation, the Chairman, P. Avolio, asked how this substation would affect the existing Richards Substation, which is 1.5 miles up the road. He mentioned that in the summer of 2005 the commercial district along Rt. 19 experienced outages that upset several businesses and residents in this area. We did see a few outages in this area as a result of trees coming down during storms. We also had one outage from equipment failure at the substation. I explained that this new substation will provide for the new growth coming to Pine Twp. and will reduce some of the load at the existing substation to improve reliability and provide power for additional growth at the southern end of the township. I also explained that from October through year-end 2005, Asplundh Tree Service cleared trees on both circuits 743 & 745 as part of the four-year Vegetation Maintenance Schedule. With tree clearing, equipment upgrades, circuit upgrades and the proposed new Wexford Substation, service reliability should improve in this area and provide for future growth. The commissioners asked several more questions before giving Penn Power tentative approval for the new substation. After the meeting the commissioners thanked us for the work completed in 2005 and the work scheduled in 2006 to improve reliability.

| Item: | Assigned To: | Date Due: | Date Completed: |
|-----------------------|--------------------------------------|-----------|-----------------|
| Circuit Tree Clearing | G. Urick, Penn Power Forestry | | December 2005 |
| Wexford Substation | J. Kaneski, FE Substation Manager | June '07 | |

Public Meeting Report

Meeting Information

Municipality/Group: Lawrence Co. Commissioners and County Planner

Location: 430 Court Street - New Castle, Pa. 16101

Date/Time: March 13, 2006 at 10:00 a.m.

Penn Power Circuit: Y-194, Y-196 and Locust St (X-45 --23kv tap)

Penn Power Attendees: Bart L. Spagnola, Area Manager

David Wareham, Real Estate

Public Attendees: Steven Craig, County Commissioner

Edward Fosnaught, County Commissioner

James Gagliano, County Planner

Background / Issues

This meeting was held at the Lawrence County Court House to discuss recent outages that have affected the North Hill urban area and the Downtown New Castle area, which includes the County Court House. The discussion centered on the length of outage time and what could be done to restore power more quickly. We have been working on a solution to shorten the length of outages in the downtown and North Hill areas. I explained that the three substations and their (10) distribution circuits in this area are currently on a transmission and sub-transmission radial. Our plan is to establish a 69 kV transmission "loop" on the west side of Penn Power's New Castle urban service area. The plan will complete the loop by closing the gap between Hillcrest Substation, Y-194 tap, and Grant Street Y-196 tap. We will be converting the Locust X-45 -- 23 kV tap to a 69 kV substation. This will allow us to switch and isolate trouble in the circuits during storms, unscheduled outages, and to restore power more quickly to a majority of the customers. The commissioners were pleased that the work is being done to upgrade and improve the system in and around the New Castle area.

Revised Work Schedule: All tree trimming on the circuits listed above has been completed. A recent review has shown improvement in reliability since the work was done. These circuits along with other circuits in the New Castle Area will be evaluated again later this year for future maintenance.

| Item: | Assigned To: | Date Due: | Date Completed: |
|---------------------------|--|-----------|-----------------|
| Engineering, if necessary | John Wittmann, Engineering Supervisor | 2007 | |
| Maintenance, if necessary | Jim Visingardi, Operations Manager | 2007 | |

Penelec

Public Meeting Report

Meeting Information

Municipality/Group: Millcreek Twp. / Erie - Amhurst Road Area Location: Millcreek Township Municipal Building

Date/Time: November 10, 2005 at 6:00 p.m.

Penelec Circuit: Rolling Meadows Amhurst URD Circuit 00513-31

Penelec Attendees: Dan Heher Area Manager, Chuck Tillburg COC Manager and Marty

Grzasko, Director of Customer Support

Public Attendees: Approximately 75 Residents of the Amhurst Rd Subdivision

Background / Issues

Amhurst Road is fed with a 34.5 kV URD Distribution system. The Customers have experienced a number of prolonged outages. Improvements were made to the system in 2002 by adding new electrical feeds to the area. As a result the electrical feed to these customers was greatly improved. However, in 2005 outages began to occur again, creating the need for reliability improvements.

| Item: | Assigned To: | Date Due: | Date Completed: |
|----------------------------------|--------------------|-----------|-----------------|
| Replace main line URD feed along | Engineering & Line | 4Q '06 | |
| Amhurst Road. | | | |

Penelec

Public Meeting Report

Meeting Information

Municipality/Group:

Port Allegany Borough

Location: Date/Time:

Port Allegany Borough November 17, 2005

Penelec Circuit:

Eldred Circuit (2 Mile - sub)

Penelec Attendees:

Russell Van Horn

Public Attendees:

Representative. Martin Causer, Borough Manager - Richard

Kallenborn, James Kaminsky, Arch Klein

Background / Issues

During the first quarter of 2005 customers and borough officials expressed concerns about momentary and extended outages. The borough also had concerns about poor communication and access to the Call Center.

As a direct result of these issues Bill Dale and engineering personnel inspected the entire Eldred circuit out of our Two-Mile substation with the initiative to address and correct the above concerns. As a result, the following work was completed and reviewed with the attendees:

- All cutouts on the circuit were replaced.
- Spurs were fused.
- Insulators and cross arms replaced as needed.
- A radio-controlled vacuum switch was installed roughly in the middle of the circuit.
- The municipal toll free number was reviewed and discussed with respect to answering priority as well as the experience level of the agents.

The engineering for this work and the required construction was completed in the 3rd quarter of 2005. It has been acknowledged and has addressed the issues originally expressed. Borough officials were satisfied with results of the meeting.

| Item: | Assigned To: | Date Due: | Date Completed: |
|-------------------------------|--------------|-----------|-----------------|
| Follow-up meeting(s) with Mr. | R Van Horn | 2Q '06 | 5/30/06 |
| Kallenborn | | 3Q '06 | 10/11/06 |

Penelec

Public Meeting Report

Meeting Information

Municipality/Group: Customers served from the Sam Rea Sub

Location: Altoona Penelec Office
Date/Time: March 30, 2006 at 6:00 p.m.

Penelec Circuit: 31-71, 2,139 customers served 32-71, 652 customers served

Penelec Attendees: Bob Chumrik, Theresa Heasley, Beverly Green, Rick Gunsallus, Clair

Ciaverella

Public Attendees: 15 customers attended the meeting. Attendance sheet is available

upon request.

Background / Issues

Circuit 31-71 is on the worst performing circuit list. Both circuits have had numerous outages and instantaneous interruptions due to the substation failure and circuit performance. Topics discussed were replacement and installation of insulators, cross arms fusing and pole replacement. The Osmose pole inspection program was discussed. Substation improvements included relaying upgrades, replaced main power transformer, and overall substation maintenance. The distribution tree trimming program was also reviewed. Letters were sent to each customer served from these circuits outlining the same information.



March 13, 2006

Dear Customer:

Penelec is aware of the concerns and inconvenience our customers experience with service interruptions. We would like to take this opportunity to share with you what actions and steps are being taken to improve reliability in your area.

Specific projects have been implemented to identify and correct problems related to your service. The circuit serving your area was patrolled by our engineering department and facilities not meeting our service level requirements have been identified for replacement or upgrade. The improvements include the installation of protection devices which will isolate the number of customers experiencing extended outages, and will keep the number of customers affected by service interruptions to a minimum. In addition these enhancements included pole and crossarm replacement along with the installation of insulators and lightning arresters.

Although there is always the possibility of electrical outages that are beyond our control, we are confident the line upgrades and improvements will strengthen our ability to respond to the outside influences that sometimes cause outages to our customers such as car pole accidents, adverse weather conditions and other such incidents.

On Thursday, March 30, 2006, at 6:00PM, we welcome you to join us at our Altoona Penelec office building to discuss the work we are undertaking to address your service reliability. Our office is located at 405 W. Plank Rd., Altoona, and the meeting will be held in our auditorium located at the front of the building. Our office complex is located directly across from the Giant Eagle store on W. Plank Rd. If you are unable to attend and would like more information please contact us at 949-6311 and leave your name and phone number and we will have a representative contact you. If you are interested in attending the meeting, please call 949-6311 to RSVP.

We appreciate the opportunity to serve your electric service needs and look forward to continuing to provide you with affordable reliable service.

Our Energy is Working for You

Sincerely,

Beverly M. Green Area Manager

| Item: | Assigned To: | Date Due: | Date Completed: |
|---|--------------|------------|-----------------|
| Bob Shoop - pole to be replaced | Operations | 5/1/06 New | |
| | | Date 10/06 | |
| Mark Hileman - pull box needs repaired/replaced | Operations | 5/15/06 | 5/11/06 |

MetEd

Public Meeting Report

Meeting Information

Municipality/Group:

Cornwall Boro, N. Cornwall Twp, and residents.

Location:

533 Zinns Mill Road

Date/Time:

October 17, 2005

MetEd Circuit: MetEd Attendees: 780-2 Dan Logar

Public Attendees:

Priscilla Miller, Mr & Mrs Joe Schott, Rep Gingrich & Zug, State Sen

Brightbill, Cornwall Boro, and N. Cornwall Twp officials.

Background / Issues

The 780-2 circuit originates from the Broad Street substation. Load growth on the circuit is causing overload concerns. The solution is to reactivate the North Cornwall substation near 533 Zinns Mill Road. The meetings were for residents near the substation property and elected officials.

| Item: | Assigned To: | Date Due: | Date Completed: |
|---|---------------|-----------|-----------------|
| Complete installation of the Substation | Greg Gillotti | 4Q '06 | |

MetEd

Public Meeting Report

Meeting Information

Municipality/Group: Several Residential Customers

Location: Red Lion, York County
Date/Time: Various Correspondence

MetEd Circuit: Windsor and School Lane Substations

MetEd Attendees: Ernie Waters, Area Manager; James Sarver, Engineer

Public Attendees: Customers in the Red Lions Area: Howard Supplee, James Gibbs,

Linda Smith, John Leber, Richard Jackson, Deb Taylor, Richard Ruff, Chris Anderson, Lamar Frey, Josephine Witman, David Humberd

Background / Issues

A sporadic, fluttering lights condition was persisting for customers in the Red Lion area. Met-Ed purchased special equipment to detect the source of the problem. The source was traced to a commercial/industrial customer and multiple pieces of equipment utilized within that customer's facility. The customer's Static VAR Compensator at their plant was inoperable. Met-Ed is assisting the customer in engaging outside expertise to repair the Static VAR Compensator.

Met-Ed initiated a group meeting of customers affected by this issue to discuss the effort being taken by the commercial/industrial customer with the assistance of Met-Ed. This group informally elected to be represented by one representative – namely Mr. Humberd.

We performed the following follow-up communication: voice message (early May), letter (mailed to each customer on May 11th), and verbal communication with Mr. Humberd (June 29th).

Met-Ed met with the specific commercial/industrial customer that is the source of the problem on September 22 and will continue to meet with them until the issue has been corrected.

| Item: | Assigned To: | Date Due: | Date Completed: |
|-------------------------------------|--------------|-----------|-----------------|
| Met-Ed will continue to communicate | Ernie Waters | Ongoing | |
| progress | | | |