PECO
An Exelon Company

**Brian D. Crowe**
Director Retail Rates

PECO Energy Company
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Philadelphia, PA 19103

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Telephone 215.841.5316
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L-00030161

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MAY 11 2007

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

May 11, 2007

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

Dear Secretary McNulty:

As a follow-up to Darren Gill's request for additional information regarding our response to the storms that occurred during April 13-17, we have compiled the following information and have attached a chart detailing the number of customers off by hour.

**WEATHER CONDITIONS**

This was one of the more challenging weather events that our service territory has experienced. It included *heavy* rain, followed by a *long* period of high winds. The conditions were exacerbated by leaves now on trees. Actual measurements observed during the event showed numerous times where sustained winds were anywhere from mid-20 mph winds to mid 30-mph winds, with gusts exceeding 50 mph. The saturated soil conditions plus long period of significant winds contributed to outages continuously occurring over a three-day period with a high incidence of uprooted trees damaging distribution wires, poles, cross arms and other equipment.

**CUSTOMER RESTORATION PERIOD**

The total number of our customers affected was 130,631. Of those affected, 97,799 fell into the "sustained" category and 32,832 fell into the "momentary" category. Unlike thunderstorms, which affect an area for a relatively short time and then depart, as noted above, this was a situation where the service territory was impacted by a continuous, heavy wind event. The most severe weather caused a substantial spike in outages (from about 5K to 40K over a four-hour period starting at 04:00 Monday, April 16, 2007). Extra crews were brought on the system, starting on April 15, 2007, to cover all shifts – 24 hours a day, 7 days a week – for the duration of the storm.

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**BACK-UP CREWS**

MAMA (Mid Atlantic Mutual Assistance) calls were conducted during this event to determine needs and availability of crews. Since all MAMA companies were affected, it was necessary for PECO to obtain local contractor resources. Once it was evident that additional assistance was needed *beyond* local contractors, PECO reached out to contractors with crews located in areas such as northern NJ, NY and MI (in the latter case, they supplied personnel from a subsidiary located in FL). The total numbers utilized to assist in restoration included 323 contractors and 261 tree trimmers.

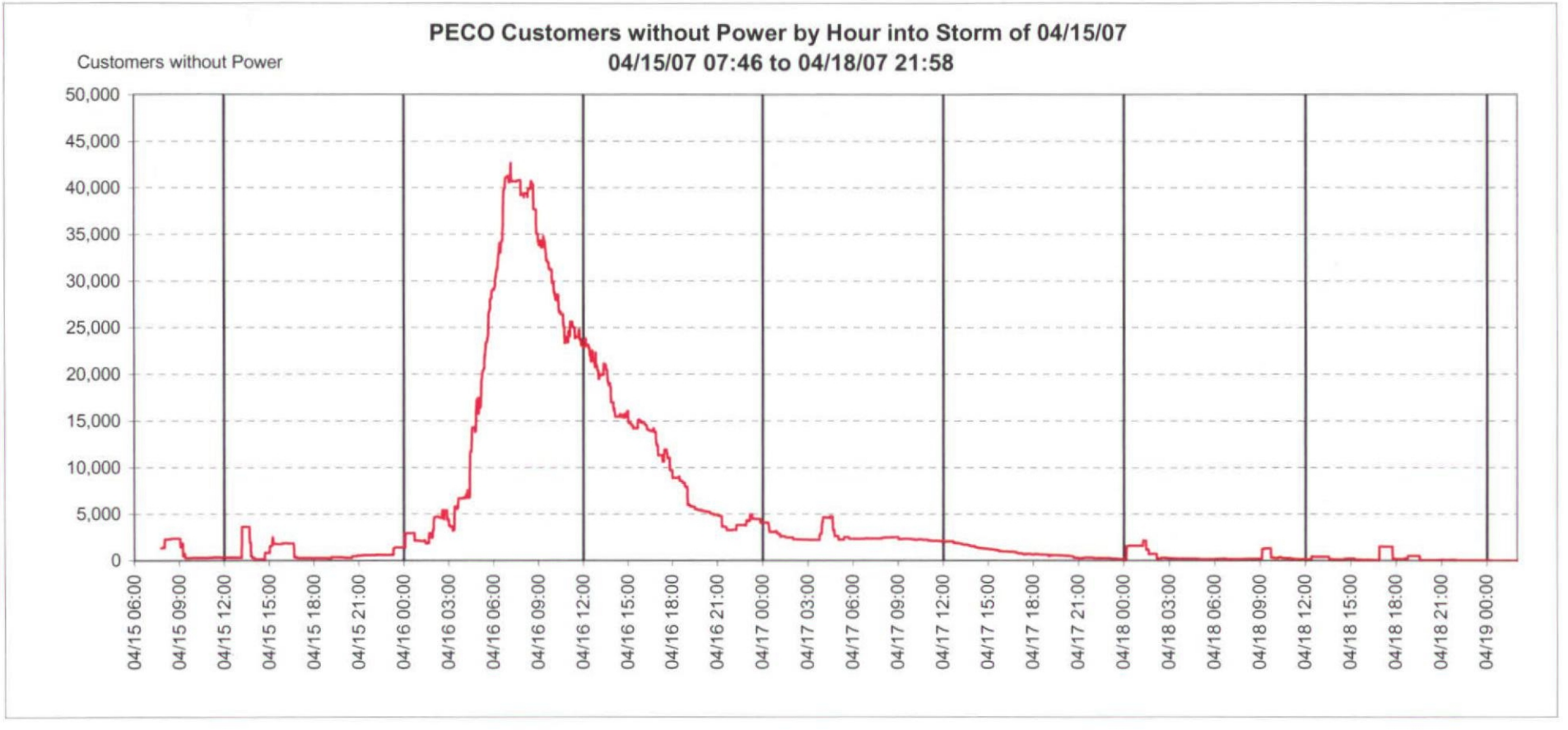
If you have any questions please contact me at 215-841-5316.

Sincerely,

Brian D. Crowe
Director
Retail Rates

cc: Darren Gill, Supervisor, Electric Reliability, Bureau of CEEP

enclosures


PECO Customers without Power by Hour into Storm of 04/15/07
04/15/07 07:46 to 04/18/07 21:58
Customers without Power
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
04/15 06:00
04/15 09:00
04/15 12:00
04/15 15:00
04/15 18:00
04/15 21:00
04/16 00:00
04/16 03:00
04/16 06:00
04/16 09:00
04/16 12:00
04/16 15:00
04/16 18:00
04/16 21:00
04/17 00:00
04/17 03:00
04/17 06:00
04/17 09:00
04/17 12:00
04/17 15:00
04/17 18:00
04/17 21:00
04/18 00:00
04/18 03:00
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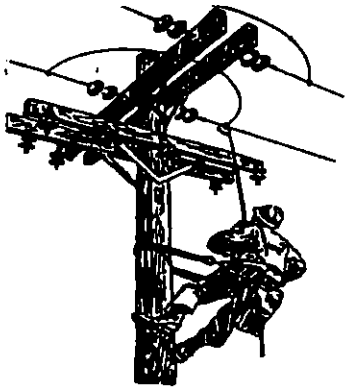
04/18 15:00
04/18 18:00
04/18 21:00
04/19 00:00




# CITIZENS' ELECTRIC COMPANY

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


July 19, 2007

ORIGINAL

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

L-00030161

Dear Mr. McNulty,

Enclosed please find an original and six copies of the Second Quarter, 2007 Reliability Report for Citizens' Electric Company.

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

DOCUMENT FOLDER

Sincerely,

John A. Kelchner, PE
Vice President, Engineering & Operations

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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

cc: Pennsylvania Office of Consumer Advocate
Pennsylvania Office of Small Business Advocate
Darren Gill (via email)



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Citizens' Electric Company
Quarterly Service Reliability Report
Second Quarter, 2007

Prepared by John A. Kelchner, PE
Vice President of Engineering & Operations
570-522-6143
kelchnerj@citizenselectric.com

April 24, 2007

**§ 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.**

On May 10th, a strong thunderstorm with frequent lightning moved through the area causing equipment damage and outages. While winds were not excessive during this storm, the lightning associated with it was significant. Crews reported observing a large number of strikes as the storm moved across our territory. This storm was approved for exclusion as a Major Event on June 6th.

| Date | Time First Call Received | Duration of Event (Minutes) | # of Customers Affected | Cause |
|---|---|---|---|---|
| 5/10/2007 | 3:59 PM | 247 | 882 | Weather |

**§ 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 | 0.29 | 0.21 | 0.27 |
| SAIDI | 19 | 21 | 38 |
| CAIDI | 64 | 105 | 141 |

| Total # of Customers Served | # of Interruptions | # of Customers Affected | Customer Minutes |
|---|---|---|---|
| 6,716 | 69 | 1,981 | 126,804 |

The following outages were submitted 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 |
|---|---|---|
| 3/19/2007 | 947 | 98,488 |
| 5/10/2007 | 882 | 46,904 |

**§ 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 | 26 | 37.7 | 448 | 20,008 |
| Equipment | 17 | 24.6 | 223 | 24,841 |
| Off R/W Trees | 2 | 2.9 | 27 | 1,035 |
| Weather | 15 | 21.7 | 395 | 27,833 |
| Vehicle | 4 | 5.8 | 809 | 48,099 |
| Other | 5 | 7.2 | 79 | 4,988 |
| Total | 69 | | 1981 | 126,804 |

**Discussion**

The largest contribution of interruption minutes this quarter came from vehicles. The most significant of these was an outage on June 17th when a vehicle left the roadway at 1:06 AM and struck a pole, breaking it and interrupting service to 311 customers. Most customers were restored in 84 minutes. On June 19th, a concrete truck working in a residential area snagged a telephone line and broke a pole. This interrupted service to 480 customers. 446 of these customers were restored within 27 minutes.

We are continuing to aggressively install wildlife protection in an effort to reduce animal induced outages.

Orange & Rockland
a conEdison, inc. company
(845) 577-3341

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

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July 20, 2007

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

Attention: Secretary James J. McNulty

Re: Second Quarter 2007 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 Second Quarter 2007 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.

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

Very truly yours,

Timothy Garvin

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

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# Pike County Light and Power Company

# (Orange and Rockland Utilities, Inc.)

# Quarterly Reliability Report

Second Quarter 2007

**§ 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.**

## 2nd Quarter 2007 Major Events

| Date | Time | Circuit | Cause | Duration | Customers Affected | Cust Min of Interruption |
|---|---|---|---|---|---|---|
| 6/27/2007 | 7:58 PM | L7-6-34 | Lightning | 100 min. | 2,204 | 220,400 |

## 2nd Quarter 2007 Pre-Arranged Outages

| Date | Time | Circuit | Duration | Customers Affected | Cust Min of Interruption |
|---|---|---|---|---|---|
| 6/21/2007 | 9:56 AM | 104-03-13 | 112 min. | 91 | 10,192 |

**§ 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.**

## Interruption Data Rolling 12-Month Data

| Year | Quarter | Customers Served | Interruptions | Customers Affected | Customer Min of Interruptions |
|---|---|---|---|---|---|
| 2006 | 3rd Qtr | 4,444 | 68 | 5,613 | 666,434 |
| 2006 | 4th Qtr | 4,461 | 66 | 5,192 | 736,870 |
| 2007 | 1st Qtr | 4,470 | 59 | 4,780 | 560,420 |
| 2007 | 2nd Qtr | 4,477 | 57 | 3,176 | 510,914 |

## Performance Ratios - Rolling 12-Month Data

| | Frequency SAIFI | Restoration CAIDI (Min) | Duration SAIDI (Min) |
|---|---|---|---|
| Benchmark | .61 | 174 | 106 |
| Rolling 12 Month Standard | 0.83 | 235 | 195 |

| Year | Qtr | Frequency SAIFI | Restoration CAIDI | Duration SAIDI |
|---|---|---|---|---|
| 2006 | 3rd Qtr | 1.26 | 119 | 150 |
| 2006 | 4th Qtr | 1.16 | 142 | 165 |
| 2007 | 1st Qtr | 1.07 | 117 | 125 |
| 2007 | 2nd Qtr | 0.71 | 161 | 114 |

**§ 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.**

Second Quarter 2007
Cause Analysis
Rolling 12 Months Data
*Excludes Storms, Major Events, Pre-Arrranged

| Cause | # of Interruptions | % of Total Interruptions | Customers Affected | % of Customers Affected | Customer Minutes | % of Customer Minutes |
|---|---|---|---|---|---|---|
| Animal Contact | 4 | 7% | 568 | 18% | 64,500 | 13% |
| Tree Contact | 27 | 47% | 1,206 | 38% | 297,389 | 58% |
| Overload | - | - | - | - | - | - |
| Work Error | - | - | - | - | - | - |
| Equip. Failure | 9 | 16% | 348 | 11% | 38,243 | 7% |
| Non-Comp Acc. | 7 | 12% | 482 | 15% | 43,519 | 9% |
| Custmr Problem | - | - | - | - | - | - |
| Lightning | 4 | 7% | 273 | 9% | 30,130 | 6% |
| Unknown-Other | 6 | 11% | 299 | 9% | 37,133 | 7% |
| All Causes | 57 | | 3,176 | | 510,914 | |

**Paul E. Russell**
Associate General Counsel

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

**FEDERAL EXPRESS**

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July 30, 2007

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JUL 30 2007

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

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

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**Re: PPL Electric Utilities Corporation**
**Quarterly Reliability Report for the**
**Period Ended June 30, 2007**
**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 June 30, 2007. 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 July 30, 2007, 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/dlw

Paul E. Russell

Enclosures

cc: Elizabeth H. Barnes, Esquire
Mr. Darren Gill

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ORIGINAL

PPL Electric Utilities

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



*July 2007*

(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 events during this quarter that met the criteria for a major event.

(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 June 30, 2007.

| | |
|---|---|
| **SAIFI (Benchmark = 0.98; Rolling 12-month Std. = 1.18)** | 1.201 |
| **CAIDI (Benchmark = 145; Rolling 12-month Std. = 174)** | 163 |
| **SAIDI (Benchmark = 142; Rolling 12-month Std. = 205)** | 196 |
| **MAIFI[1]** | 6.646 |
| **Average Number of Customers Served[2]** | 1,366,205 |
| **Number of Sustained Customer Interruptions (Trouble Cases)** | 22,392 |
| **Number of Customers Affected[3]** | 1,641,460 |
| **Customer Minutes of Interruptions** | 267,917,125 |
| **Number of Customer Momentary Interruptions** | 9,079,958 |

During the 2nd quarter, there were three (3) PUC-reportable storms (≥2,500 customers interrupted for ≥6 hr.) and nine (9) storms that were not reportable, but which did require opening one or more area emergency centers to manage restoration efforts. Current storm experience remains extraordinary compared to historical norms.

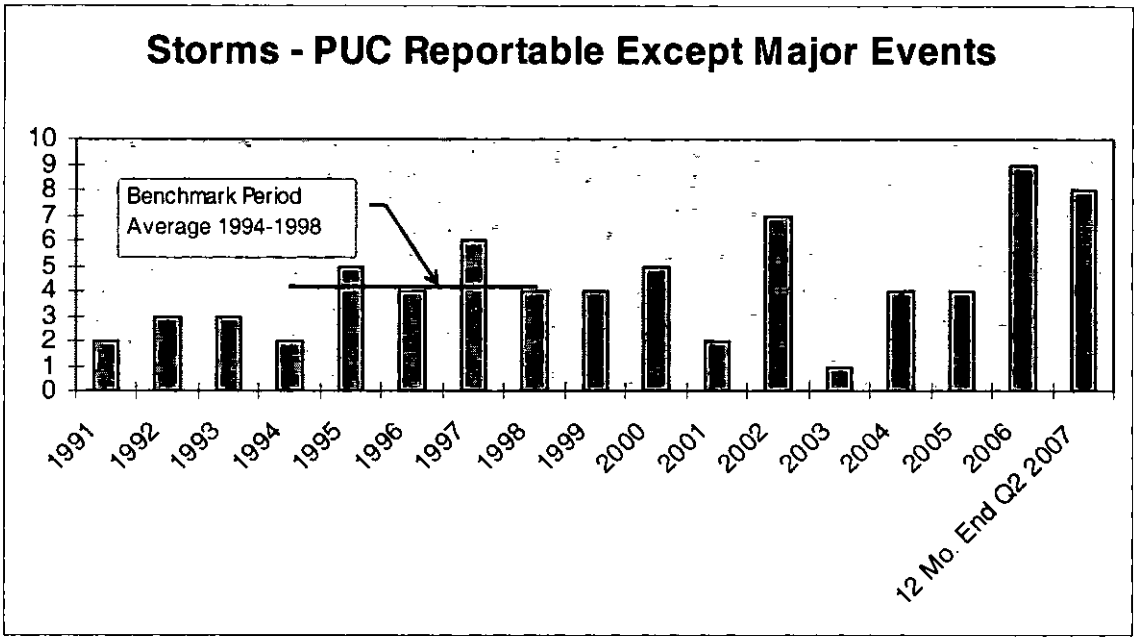
---

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

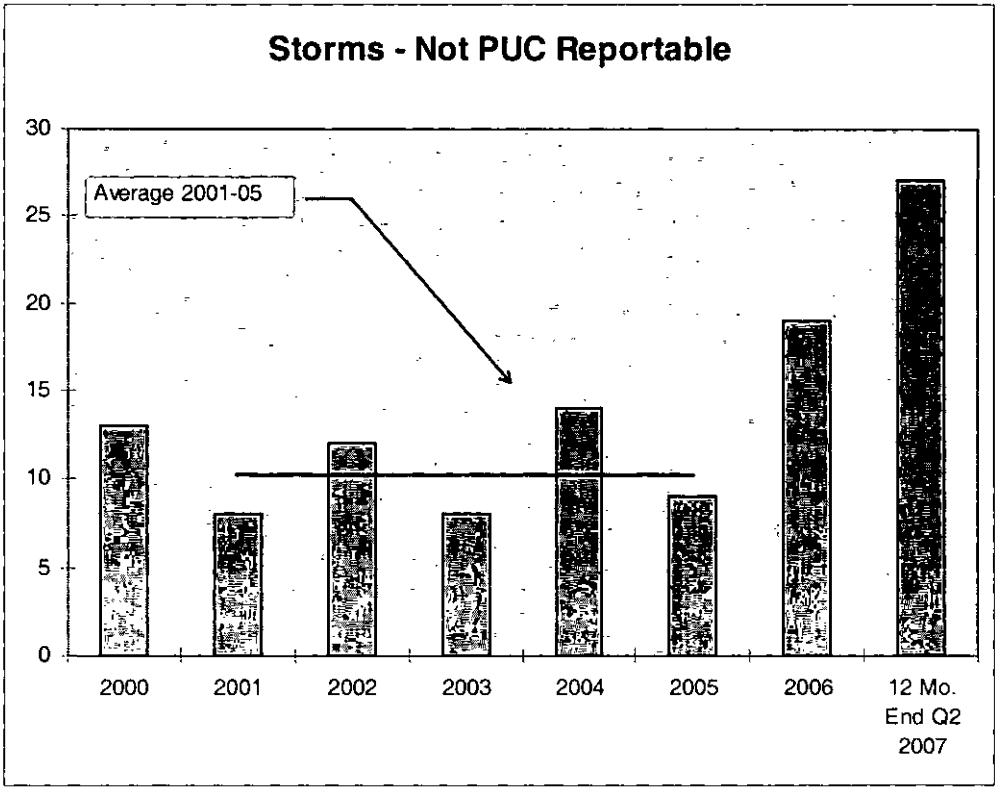
[2] PPL Electric calculates the annual indices using customers served at the end of the period. This is consistent with the method used to calculate PPL Electric's benchmarks.

[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.

Specifically, during the twelve-month reporting period, there were eight (8) PUC-reportable storms (≥2,500 customers interrupted for ≥6 hr.). This is well above the average of 4.2 storms per year during the benchmark years, 1994-1998.




In addition, there were twenty-seven (27) storms that were not reportable, but which did require opening one or more area emergency centers to manage restoration efforts. This is 165% higher than the average of 10.2 storms per year for the five years from 2001 through 2005.



*(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 circuits in the system for the 12 months ended at the current quarter[4]. An explanation of how PPL Electric defines its worst performing circuits is included in Appendix A[5].

| WPC Rank | Feeder ID | SAIFI | CAIDI | SAIDI | MAIFI[6] | Customers | Cases of Trouble[7] | Customer Minutes Interrupted | CPI |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 45102 | 1.85 | 1,674 | 3,091 | 8.15 | 182 | 7 | 562,604 | 1110 |
| 2 | 26602 | 6.15 | 177 | 1,086 | 6.03 | 2,963 | 120 | 3,216,804 | 1038 |
| 3 | 66502 | 8.75 | 209 | 1,826 | 40.74 | 737 | 38 | 1,346,085 | 973 |
| 4 | 11001 | 5.23 | 187 | 980 | 6.98 | 866 | 66 | 848,781 | 951 |
| 5 | 28302 | 4.75 | 282 | 1,338 | 9.01 | 2,810 | 87 | 3,760,364 | 937 |
| 6 | 57401 | 5.44 | 131 | 713 | 0.00 | 1,449 | 28 | 1,033,599 | 927 |
| 7 | 23604 | 1.43 | 1,744 | 2,501 | 6.01 | 2,507 | 31 | 6,270,014 | 926 |
| 8 | 46101 | 4.59 | 86 | 393 | 5.99 | 1,112 | 8 | 437,049 | 901 |
| 9 | 41101 | 4.55 | 165 | 752 | 1.02 | 1,026 | 11 | 771,739 | 894 |
| 10 | 27203 | 5.05 | 88 | 445 | 7.99 | 469 | 13 | 208,842 | 876 |
| 11 | 45101 | 2.29 | 944 | 2,163 | 8.06 | 161 | 6 | 348,249 | 867 |
| 12 | 63403 | 3.71 | 460 | 1,707 | 7.98 | 1,419 | 44 | 2,422,309 | 860 |
| 13 | 67702 | 4.25 | 152 | 644 | 5.99 | 879 | 21 | 566,432 | 854 |
| 14 | 11506 | 5.46 | 117 | 638 | 3.98 | 1,285 | 68 | 820,405 | 847 |
| 15 | 17803 | 5.82 | 109 | 633 | 11.99 | 2,493 | 71 | 1,577,763 | 845 |
| 16 | 10803 | 3.11 | 333 | 1,033 | 1.01 | 150 | 9 | 154,973 | 841 |
| 17 | 20403 | 5.28 | 131 | 692 | 0.99 | 1,885 | 58 | 1,303,852 | 823 |
| 18 | 42503 | 4.39 | 220 | 967 | 4.11 | 2,015 | 12 | 1,948,898 | 816 |
| 19 | 15701 | 3.63 | 150 | 543 | 12.04 | 2,225 | 46 | 1,208,352 | 806 |
| 20 | 64802 | 4.63 | 89 | 412 | 0.00 | 1,251 | 31 | 515,486 | 800 |
| 21 | 60104 | 5.18 | 98 | 506 | 0.00 | 2,041 | 54 | 1,033,065 | 788 |
| 22 | 47802 | 4.39 | 96 | 419 | 14.44 | 2,426 | 14 | 1,016,124 | 778 |
| 23 | 60603 | 4.79 | 141 | 676 | 3.08 | 2,083 | 69 | 1,408,600 | 773 |
| 24 | 12402 | 3.87 | 230 | 892 | 4.06 | 1,353 | 52 | 1,207,231 | 769 |

[4] One feeder (15401 with 13 customers) that the calculation method identified among the worst performing due to a data error was deleted from this listing.

[5] The new CPI calculation used for the first time in the 2nd quarter of 2007 results in higher absolute CPI values than the formula previously used. As a result, these CPI values may not be compared to those calculated prior to the 2nd quarter of 2007.

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

[7] Cases of trouble are the number of sustained customer service interruptions.

| WPC Rank | Feeder ID | SAIFI | CAIDI | SAIDI | MAIFI[6] | Customers | Cases of Trouble[7] | Customer Minutes Interrupted | CPI |
|---|---|---|---|---|---|---|---|---|---|
| 25 | 17002 | 4.22 | 145 | 611 | 14.02 | 1,264 | 34 | 772,079 | 765 |
| 26 | 23603 | 2.22 | 836 | 1,854 | 6.07 | 306 | 6 | 567,378 | 763 |
| 27 | 67401 | 3.84 | 141 | 541 | 5.04 | 1,371 | 51 | 741,309 | 704 |
| 28 | 60802 | 3.66 | 129 | 470 | 4.03 | 691 | 29 | 324,947 | 703 |
| 29 | 53602 | 4.81 | 119 | 570 | 2.08 | 3,351 | 104 | 1,911,646 | 690 |
| 30 | 11302 | 4.3 | 35 | 149 | 20.16 | 1,939 | 22 | 289,129 | 675 |
| 31 | 14604 | 3.51 | 216 | 759 | 9.05 | 336 | 20 | 255,085 | 673 |
| 32 | 13904 | 1.25 | 1,323 | 1,649 | 22.42 | 1,488 | 12 | 2,454,092 | 672 |
| 33 | 27901 | 3.15 | 227 | 715 | 0.00 | 1,235 | 40 | 882,804 | 643 |
| 34 | 15601 | 3.2 | 143 | 459 | 13.97 | 2,368 | 55 | 1,086,112 | 636 |
| 35 | 60903 | 3.33 | 266 | 885 | 9.00 | 1,223 | 18 | 1,081,805 | 632 |
| 36 | 28601 | 2.98 | 465 | 1,387 | 9.02 | 2,067 | 41 | 2,866,599 | 627 |
| 37 | 22601 | 3.36 | 207 | 695 | 4.02 | 1,952 | 56 | 1,356,226 | 625 |
| 38 | 24603 | 3.85 | 135 | 521 | 2.00 | 1,519 | 72 | 791,162 | 619 |
| 39 | 24602 | 3.3 | 197 | 651 | 2.01 | 1,505 | 56 | 979,936 | 616 |
| 40 | 16405 | 4.14 | 82 | 338 | 15.45 | 267 | 11 | 90,360 | 614 |
| 41 | 63402 | 2.81 | 413 | 1,160 | 11.01 | 1,870 | 22 | 2,169,065 | 609 |
| 42 | 53902 | 2.13 | 483 | 1,028 | 6.01 | 1,097 | 46 | 1,128,158 | 595 |
| 43 | 45302 | 3.98 | 184 | 733 | 3.07 | 1,560 | 56 | 1,142,828 | 594 |
| 44 | 12102 | 3.39 | 131 | 442 | 5.02 | 1,960 | 52 | 866,927 | 590 |
| 45 | 42301 | 1.54 | 856 | 1,317 | 3.08 | 840 | 32 | 1,106,161 | 581 |
| 46 | 22402 | 1.81 | 698 | 1,264 | 7.01 | 1,302 | 20 | 1,645,857 | 578 |
| 47 | 16401 | 3.55 | 164 | 583 | 11.03 | 675 | 29 | 393,255 | 572 |
| 48 | 27101 | 2.88 | 288 | 829 | 2.06 | 2,673 | 88 | 2,216,865 | 562 |
| 49 | 26601 | 1.97 | 512 | 1,011 | 4.01 | 1,274 | 49 | 1,288,387 | 559 |
| 50 | 16403 | 2.54 | 235 | 595 | 15.10 | 801 | 15 | 476,669 | 557 |
| 51 | 40503 | 3.35 | 159 | 534 | 8.06 | 2,281 | 61 | 1,218,595 | 555 |
| 52 | 64202 | 3.65 | 151 | 550 | 4.07 | 998 | 45 | 549,024 | 550 |
| 53 | 56802 | 3.19 | 178 | 569 | 17.07 | 2,230 | 60 | 1,268,168 | 547 |
| 54 | 45303 | 3.48 | 110 | 383 | 13.15 | 1,289 | 48 | 494,298 | 544 |
| 55 | 42801 | 2.55 | 307 | 783 | 9.21 | 847 | 21 | 663,546 | 539 |

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 which occurred during the time span to determine if there are causal patterns, or geographic patterns, for which corrective actions are feasible that 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/Complete* | *Result* |
|---|---|---|---|---|
| **1** | **Circuit ID: 45102 CASS 51-02** | | | **Location: Central** **CPI: 1110** |
| | 7/11/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 8/31/2006 | 2 significant outages contributed to a very high CAIDI. |
| | 9/25/2006: Evaluate potential ties. Tie from Marlin 71-03 to Cass 51-02 to serve from alternate source being evaluated. | Completed | 5/31/2007 | Reduced outage duration. WR 284417 extend additional phase conductor from Marlin 71-3 line for 1 mile, extend 3 phases 2000 ft. to Cass 51-02 line. Add neutral to 23 kv line. Remove 2 stepdowns and eliminate 2 miles of inacessible 23 kv line. |
| | 4/10/2007: Line being served from alternate source permanently. | Completed | 5/31/2007 | Reduced outage duration. By serving this line at our standard voltage, restoration and maintenance times should see improvement. Also nearly 2 miles of inaccesible line has been eliminated from the source of this circuit. |
| **2** | **Circuit ID: 26602 BROOKSIDE 66-02** | | | **Location: Scranton** **CPI: 1040** |
| | Perform line maintenance identified by line inspection. Helicopter patrol was completed | Completed | 12/30/2005 | Broken and failing crossarms were found and repaired to reduce risk of customer outage. |
| | Tree trimming. Hot Spotting being done as needed | Completed | 9/30/2005 | Reduced outage risk. |
| | Expanded Operational Review. Voltage Profile Completed 7/24/2006. | Completed | 7/31/2006 | Voltage Profile Completed 7/24/2006. Reliability profile Completed 09/29/2006. |
| | Line being reconductored for 0.3 miles (WR# 233124) | Scheduled for | 9/30/2007 | |
| | 11/4/2005: Sectionalizer being replaced (WR#269977). Additional sectionalizing opportunities being considered by field engineer. | Completed | 1/30/2007 | Replacement of the sectionalizer will improve reliability and decrease the number of customers experiencing an outage. |
| | 4/17/2006: Relocate inaccesssible line. An inaccessible portion of the Brookside 66-02 and 66-04 line is scheduled to be rebuilt along the roadway. The line is planned to be rebuilt and sectionalized under B21118 (with an RIS of 11/2007) and B21119 (with an RIS of 11/2009). | 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. |
| | 5/3/2006: Install fault indicators | Completed | 5/30/2007 | Additional fault indicators will decrease length of customer outages by allowing troublemen to determine where fault occurred more quickly |
| | Monitor future performance. | Ongoing | | |
| **3** | **Circuit ID: 66502 SOUTH MANHEIM 65-02** | | | **Location: Lancaster** **CPI: 973** |
| | 12/6/2005: Load balancing. | Completed | 7/26/2006 | Maintain voltage levels |
| | 5/10/2007: Perform line maintenance identified by line inspection. Replacing crossarms and associated hardware on poles 38273s29416, 38262s29456, 38257s29477 | Scheduled for | 8/15/2007 | Reduced outage risk. |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |

| *Rank* | *Action* | *Status* | *Due/Complete* | *Result* |
|---|---|---|---|---|
| **4** | **Circuit ID: 11001 EAST GREENVILLE 10-01** | | | **Location: Bethlehem** **CPI: 951** |
| | 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. |
| | Thermographic inspection-OH line. Perform Thermovision on this circuit, analyze results, and make repairs. | Completed | 9/30/2006 | Reduced outage risk. |
| | Install telemetrics on electronic OCR | Completed | 10/30/2006 | Reduced outage duration. Thie equipment will allow the System Opertor to open and close the OCR remotely. |
| | Tree trimming-selected line segments only (hot spots). | Completed | 11/28/2006 | Reduced outage risk. |
| | Reconductor line. | In progress | 11/30/2007 | Reduced outage risk. |
| | Tree trimming. | Completed | 3/3/2007 | Reduced outage risk. |
| | Improve sectionalizing capability. Additional fuses will be added as well. | Scheduled for | 8/31/2007 | 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. |
| | 1/1/2007: Expanded Operational Review. | Completed | 2/9/2007 | Operational Review completed 2/6/07.<br>Reliability Review completed 2/9/07. |
| | Thermographic inspection-OH line. | Completed | 2/10/2007 | Reduced outage risk. |
| **5** | **Circuit ID: 28302 NEWFOUNDLAND 83-02** | | | **Location: Pocono** **CPI: 937** |
| | Tree trimming. | Completed | 8/30/2005 | |
| | Line inspection-equipment. Field engineer will identify targeted areas for line inspection. | Completed | 12/31/2005 | Field engineer determined there were no areas requiring line inspections because entire line was inspected in 2004. |
| | 3/31/2006: Line inspection-equipment. | Completed | 3/30/2006 | Customer minutes will be saved by identifying equipment that is in danger of failing. |
| | 1/1/2007: Expanded Operational Review. Line will be modeled and studied for reliability | Scheduled for | 10/31/2007 | |
| | 11/2/2006: Thermographic inspection-OH line. | Completed | 12/30/2006 | Thermovisioning will help identify potenial hot spots and failure points. This will help prevent customer outages. |
| | Reconductor line. Over 4 miles of line will be rebuilt and reconductored along the road | Scheduled for | 11/30/2008 | Rebuilding and relocating the line will reduce probability of outages as well as duration of outages seen by customers |
| | Thermographic inspection-OH line. | Completed | 3/30/2007 | |
| | Continue to monitor future performance. | Ongoing | | |

| Rank | Action | Status | Due/Complete | Result |
|---|---|---|---|---|
| **6** | **Circuit ID: 57401 SPANGLER 74-01** | | | **Location: West Shore** **CPI: 927** |
| | 5/5/2005: Perform line maintenance identified by line inspection. Replace ridge pin | Completed | 8/23/2005 | Reduced outage risk. |
| | 7/5/2005: Test underground cable. Cure Tested Cable | Completed | 12/5/2005 | Reduced outage risk. |
| | Monitor ground tripping. | Completed | 12/31/2005 | |
| | Monitor future performance. | Completed | 12/31/2005 | |
| | 1/1/2007: Expanded Operational Review. Reliability Review | Completed | 2/15/2007 | |
| | Thermographic inspection-OH line. | Completed | 3/19/2007 | Reduced outage risk. |
| | Install fuse(s). Install 7 new tap fuses | Completed | 7/16/2007 | |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. 2nd quarter, four breaker interuptions major contributing factor. Corrected operating condition that allowed overtrip on OCR. In addition, projects are identified that will reduce CPI | Completed | 7/18/2007 | |
| | Install fuse(s). Change fuse sizing for better coordination | Scheduled for | 9/15/2007 | Reduced customer count affected by each outage. |
| | Reconductor line. Reconductoring 2000' #4 Cu Main Line | Scheduled for | 11/30/2007 | Reduced outage risk. |
| | An intelligent switching project has been identified to reduce customer minutes lost. | Scheduled for | 12/31/2008 | Reduced customer count affected by each outage. |
| | Install new line and terminal. Installing new line and terminal at splangler. Increasing sectionalizing when line split in half. Adding SCADA | Scheduled for | 5/31/2009 | Reduced customer count affected by each outage. |
| **7** | **Circuit ID: 23604 WRIGHT 36-04** | | | **Location: Wilkes-Barre** **CPI: 926** |
| | 1/9/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 2/28/2007 | December 1st 2006: Tornado damaged nearly a mile of primary conductor. Probability of a similar storm is small. Improved protection scheme could have reduced the number of customers affected. Further analysis needed. |
| | Thermographic inspection-OH line. | Completed | 3/16/2007 | |
| | Install LBAS(s). | Completed | 3/12/2007 | Reduced customer count affected by each outage. |

| Rank | Action | Status | Due/Complete | Result |
|---|---|---|---|---|
| **8** | **Circuit ID: 46101 MAHANOY CITY 61-01** | | | **Location: Central** **CPI: 901** |
| | 2/8/2007: Expanded Operational Review. Voltage Profile Completed in 2006. Expanded Operational review completed on 2/8/07. Field WR Review in Progress. | EOR initiated | 12/31/2007 | Reliabilty review completed 2/8/07 |
| | Line inspection-equipment. | Completed | 7/18/2007 | Reduced outage risk. WR 357634 Repairs for two minor maintenance items completed after line patrol. |
| | Install 3 phase OCR(s). | In progress | 12/31/2007 | WR 359597 Installing three phase electronic OCR along SR 54 West of Mahanoy City. |
| | 2/8/2007: Install 3 phase OCR(s). | In progress | 12/31/2007 | Reduced customer count affected by each outage. WR 385376 Install three phase electronic sectionalizer along Linden Street in Mahanoy City between Market and Pine Streets. |
| | 2/8/2007: Install sectionalizers. | Scheduled for | 8/30/2007 | Reduced customer count affected by each outage. WR 385394 Install Tap Fuse and Load Break Disconnect along single phase tap in Patriotic Hill |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| **9** | **Circuit ID: 41101 TREMONT 23/12KV 11-01** | | | **Location: Central** **CPI: 894** |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| **10** | **Circuit ID: 27203 YATESVILLE 72-03** | | | **Location: Wilkes-Barre** **CPI: 876** |
| | 3/28/2006: Perform line maintenance identified by line inspection. | Completed | 5/12/2006 | Reduced outage risk. |
| | 1/1/2007: Expanded Operational Review.<br>Voltage profile complete 3/6/2007.<br>Field review complete 4/25/07. | Completed | 4/25/2007 | |
| | Install fuse(s). | Completed | 5/17/2007 | Reduced outage risk. |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| **11** | **Circuit ID: 45101 CASS 51-01** | | | **Location: Central** **CPI: 867** |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |

| *Rank* | *Action* | *Status* | *Due/Complete* | *Result* |
|---|---|---|---|---|
| **12** | **Circuit ID: 63403 HONEYBROOK 34-03** | | | **Location: Lancaster East** **CPI: 860** |
| | Install fuse(s). 2005 SAIDI project to install 6 fuses | Completed | 12/31/2005 | Reduced customer count affected by each outage. |
| | 1/1/2006: Expanded Operational Review. Rel. completed per 2005 SAIDI project; Voltage profile completed 8-30-2006 | Completed | 8/30/2006 | Reduced outage duration. |
| | Thermographic inspection-OH line. Scan completed 8/06 | Completed | 8/28/2006 | Reduced outage risk. |
| | 4/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 5/31/2007 | |
| | 6/8/2007: Install LBAS(s). Install Fault Indicators on a normally closed load break air switch | Scheduled for | 8/20/2007 | Reduced outage duration. |
| **13** | **Circuit ID: 67702 WERNERSVILLE 77-02** | | | **Location: Lancaster East** **CPI: 854** |
| | 8/3/2005: 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 qtr. list. | Completed | 11/30/2006 | |
| | 4/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| **14** | **Circuit ID: 11506 FREEMANSBURG 15-06** | | | **Location: Bethlehem** **CPI: 847** |
| | 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. | Completed | 11/27/2006 | Circuit breaker tripped when tree limb fell on line during Tropical Storm Ernesto resulting in a 2-1/2 hour outage for all customers on this circuit. |
| | 4/3/2006: Expanded Operational Review. | Completed | 12/4/2006 | Reduced outage risk. |
| | Monitor future performance. | Ongoing | | Trimming and other minor work appears to have improved performance. Monitoring will continue. |
| | Thermographic inspection-OH line. | Completed | 2/2/2007 | Reduced outage risk. |
| | Tree trimming. | Completed | 5/11/2007 | Reduced outage risk. |

| Rank | Action | Status | Due/Complete | Result |
|---|---|---|---|---|
| **15** | **Circuit ID: 17803 GILBERT 78-03** | | | **Location: Pocono** **CPI: 845** |
| | 10/10/2005: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 11/30/2005 | 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. |
| | 11/22/2005: A section of underground was checked for failure on this circuit | Completed | 11/30/2005 | Results and recommendation were sent to field engineer. |
| | 4/10/2006: Circuit outage data analysis - WPC not on preceding qtr. list. Field engineer is analyzing the circuit. | Completed | 12/31/2006 | Reduced outage duration. Installed OCR at 62931N28780. |
| | Improve sectionalizing capability. | Completed | 12/31/2006 | Reduced outage duration. Circuit review and analysis by field engineer completed 9/30/06 Identified one location to install OCR/sectionalizer. |
| | 9/15/2006: Expanded Operational Review. Reviewed possibilities for installing sectionalizing devices. | Completed | 12/30/2006 | Inconclusive. Monitor future performance. Identified one location to install an OCR/Sectionalizer. Installed OCR at grid 62931N28780. |
| | Thermographic inspection-OH line. | Scheduled for | 12/31/2007 | Reduced outage risk. |
| | Install fuse(s). Single Phase Tap fuses(Beltzville Lake Estates) | In progress | 12/31/2007 | Reduced customer count affected by each outage. |
| | Install fuse(s). Single Phase Tap fuses(Kunkle Tap) | In progress | 12/31/2007 | Reduced customer count affected by each outage. |
| | Install 3 phase OCR(s). Replace 140A Hydraulic OCR with 400A(280 Trip Setting) Electronic OCR (WR 364256) | In progress | 12/31/2007 | Reduced outage risk. Connected Load Exceeded |
| | 1/1/2007: Expanded Operational Review. | Completed | 6/29/2007 | Reduced outage risk. Thermovision inspection, Single Phase Tap fuses(Beltzville Lake, Kunkle Taps), Increase size of three phase OCR(WR364256) |
| **16** | **Circuit ID: 10803 CHERRY HILL 08-03** | | | **Location: Bethlehem** **CPI: 841** |
| | 4/3/2006: Expanded Operational Review. Adding 100 KVAR. Tie to Met-Ed in construction to improve reliability. | Completed | 10/6/2006 | Reduced outage risk. |
| | Monitor future performance of line. | Ongoing | | |
| | Investigating border line agreement with Met Ed Utility. Currently reviewing costs and business plan of creating a substation back up to feed the line in an emergency. New PPL served substation also being evaluated. | Completed | 2/13/2007 | Reduced outage duration. |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |

| *Rank* | *Action* | *Status* | *Due/Complete* | *Result* |
|---|---|---|---|---|
| **17** | **Circuit ID: 20403 ASHFIELD 04-03** | | | **Location: Central** **CPI: 823** |
| | 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 (Bowmanstown 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). | Completed | 7/7/2006 | Reduced customer count affected by each outage. Kepner Road single phase OCR installed on WR 229908. |
| | 7/5/2006: Reconductor line. | Completed | 7/7/2006 | Reduced outage risk. WR 229908 Reconductor 1.4 miles of lline - convert Kepner Tap from single phase to three phase. |
| | 7/5/2006: Expanded Operational Review. Voltage profile completed 8/18/06. Reliability review completed 8/31/06. Field WR review completed 6/14/06. | Completed | 8/31/2006 | Installed 3 single phase voltage regulators, reconductored 1.4 miles of line, installed 1 new single phase OCR and upgraded 4 existing OCRs to accommodate load growth. Also submitted budget item request to reconductor approximately 3 miles of three phase line – budget item was subsequently denied in deference to installing the 3 single phase voltage regulators. |
| | Tree trimming. | Completed | 3/31/2006 | Reduced outage risk. |
| | Upgrade OCRs | Completed | 6/14/2006 | Reduced outage risk. WR 270419 upgraded 2 single phase OCRs and changed the settings on 2 three phase OCRs in order to accommodate load growth downstream of the Dorset Tap. |
| | Reconductor line. Reconductor approximately 3 miles of three phase line. | Completed | 5/4/2006 | Installed 3 single phase voltage regulators instead. |
| | Monitor future performance. | Ongoing | | |
| **18** | **Circuit ID: 42503 ALTAMONT 25-03** | | | **Location: Central** **CPI: 816** |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |

| *Rank* | *Action* | *Status* | *Due/Complete* | *Result* |
|---|---|---|---|---|
| **19** | **Circuit ID: 15701 TANNERSVILLE 57-01** | | | **Location: Pocono** **CPI: 806** |
| | 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. |
| | Relocate inaccesssible line. | Completed | 12/31/2006 | |
| | 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. | Completed | 12/31/2006 | Reduced outage risk. |
| | 6/30/2006: Install one LBAS | Completed | 9/30/2006 | |
| | 7/1/2006: Monitor future performance. | Ongoing | | |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| **20** | **Circuit ID: 64802 MOUNT NEBO 48-02** | | | **Location: Lancaster East** **CPI: 800** |
| | Evaluate potential ties. | Completed | 9/26/2005 | Four different potential ties to this circuit were evaluated. All four were found to be cost prohibitive. The expected benefit of the tie lines did not exceed the excessive costs. |
| | Improve sectionalizing capability. WR 243487 - install one single phase OCR and 2 slot fuses | Completed | 12/31/2005 | Reduced customer count affected by each outage. Work requests have been initiated to install 1 new single phase OCR and 2 slot fuses. This work has been completed. |
| | Improve sectionalizing capability. | Completed | 1/31/2006 | Reduced customer count affected by each outage. Work requests have been initiated to install 1 new single phase OCR and 6 slot fuses. This work has been completed.<br>WR 243495 |
| | Evaluate potential ties. | Completed | 5/19/2006 | Reduced outage duration. It was determined that building a tie around an inaccessible section of circuit and essentially tying the circuit to itself was a cost effective way to minimize outage duration on this circuit. |
| | Thermographic inspection-OH line. Scan completed 8/06 | Completed | 8/28/2006 | Reduced outage risk. |
| | 1/1/2006: Expanded Operational Review. Profile Complete 9-22-2006<br>Reliability Complete Fall 2005 SAIDI | Completed | 9/22/2006 | Reduced outage risk. See subsequent records for reliabilty work |
| | Monitor future performance. | Ongoing | | |
| | Install tie. | Scheduled for | 12/31/2007 | Reduced outage duration. |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |

| *Rank* | *Action* | *Status* | *Due/Complete* | *Result* |
|---|---|---|---|---|
| **21** | **Circuit ID: 60104 COCALICO 01-04** | | | **Location: Lancaster East** **CPI: 788** |
| | Thermographic inspection-OH line. replace left stem on B phase Xfmr 44951S34843<br>replace all spades on 45132S33113 | Completed | 3/1/2006 | Reduced outage risk. |
| | 1/1/2007: Expanded Operational Review. Voltage Profile Completed 1-2-2007<br><br>Reliability Analysis Completed 1-2-2007 | Completed | 12/31/2007 | Reduced customer count affected by each outage. |
| | 1/3/2007: Install FI's on N.C. LBAS @ 45327s34421 | Completed | 2/8/2007 | Reduced customer count affected by each outage. |
| | 4/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 5/31/2007 | |
| | Relocate inaccesssible line. relocate poles @ 45470s23740 & 45462s23740 due to multiple pole hits around hard S-turn | Completed | 4/30/2007 | Reduced outage risk. |
| | Install fuse(s). Fuse 2 unfused taps to protect main three phase line | Scheduled for | 8/30/2007 | Reduced customer count affected by each outage. |
| **22** | **Circuit ID: 47802 MOUNT CARMEL 78-02** | | | **Location: Central** **CPI: 778** |
| | 2/8/2007: Expanded Operational Review. Voltage Profile in Progress. Reliability Review Completed 2/08/07. Reliability WR Review Completed 7/2/07. | EOR initiated | 12/31/2007 | Reliabilty review completed 2/8/07 |
| | Line inspection-equipment. | Scheduled for | 12/31/2007 | Line Inspection by Line Maintenance Inspector. |
| | Install 3 phase OCR(s). | Scheduled for | 8/31/2007 | Reduced customer count affected by each outage. WR 377396 Install new OCR on Shamokin Reservoir tap near Aristes |
| | Perform line maintenance identified by line inspection. | Scheduled for | 8/31/2007 | WR 357631 Reliablity work as a result on Line inspection patrol. |
| | Install 3 phase OCR(s). | Canceled | 5/24/2007 | Reduced outage duration. WR 366396 Install 3 phase OCR at pole 38848N24236 |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |

| Rank | Action | Status | Due/Complete | Result |
|---|---|---|---|---|
| **23** | **Circuit ID: 60603 NORTH COLUMBIA 06-03** | | | **Location: Lancaster** **CPI: 773** |
| | 7/24/2006: Install animal guard(s). | Completed | 8/11/2006 | Reduced outage risk. Installed Animal Guards |
| | Thermographic inspection-OH line. Scan completed 8/06 | Completed | 8/28/2006 | Reduced outage risk. |
| | 1/1/2006: Expanded Operational Review. Profile complete 3/1/06. Rel Pres - Completed during Fall 2005 SAIDI Project | Completed | 9/13/2006 | Reduced customer count affected by each outage. See subsequent records for reliability work |
| | Test underground cable. Susquehanna Farms (URD 401), replacing 12 of 15 sections of cable | Completed | 9/26/2006 | Reduced outage risk. |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| | Tree trimming. | Scheduled for | 8/31/2007 | |
| | Perform line maintenance identified by line inspection. | Scheduled for | 8/31/2007 | |
| **24** | **Circuit ID: 12402 MILFORD 24-02** | | | **Location: Bethlehem** **CPI: 769** |
| | Tree trimming. | Completed | 11/1/2006 | Reduced outage risk. |
| | 10/9/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 11/27/2006 | This circuit experienced 3 major outages over the past year due to a pole hit, and trees falling on the line during a thunder and lightning storm and during tropical storm Ernesto. |
| | 1/1/2007: Expanded Operational Review. | Completed | 4/12/2007 | Reduced outage risk. |
| | Thermographic inspection-OH line. | Completed | 2/9/2007 | Reduced outage risk. Nothing found. |
| | Perform maintenance based on results of Expanded Operational Review including installation of animal guards, replacing lightning arrestors, and replacing fuses. | Completed | 6/20/2007 | Reduced outage risk. |
| | Fault current indicators on load breaks and install animal guards | In progress | 9/30/2007 | Reduced outage risk. |
| **25** | **Circuit ID: 17002 RIDGE ROAD 70-02** | | | **Location: Bethlehem** **CPI: 765** |
| | Expanded Operational Review. | Completed | 9/21/2006 | |
| | 10/9/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 11/27/2006 | This circuit experienced 2 storms in the 3rd quarter of 2006, including tropical storm Ernesto, that resulted in outages due to trees on the line. |
| | Tree trimming-selected line segments only (hot spots). | Completed | 2/2/2007 | Reduced outage risk. |
| | Review line for additional sectionalizing | Scheduled for | 12/31/2007 | Reduced outage risk. |
| | Thermographic inspection-OH line. | Completed | 4/15/2007 | |
| | 4/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 5/25/2007 | Rain storms in August and September 2006 caused the circuit breaker to fail on one occurance and trip multiple times on other occurances. A circuit recloser operated during a lighting storm. During the fourth quarter of 2006 and the first quarter of 2007 this circuit had few cases of trouble. |

| Rank | Action | Status | Due/Complete | Result |
|---|---|---|---|---|
| **26** | **Circuit ID: 23603 WRIGHT 36-03** | | | **Location: Wilkes-Barre** **CPI: 763** |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| **27** | **Circuit ID: 67401 WAKEFIELD 74-01** | | | **Location: Lancaster East** **CPI: 704** |
| | Reconductor line. WR 295519 created to remove inaccessable line and eliminate tree conditions causing outages | Completed | 6/13/2006 | Reduced outage risk. |
| | 1/1/2006: Install fuse(s). Work request created to install 13 fuses | Completed | 8/18/2006 | Reduced customer count affected by each outage. |
| | Thermographic inspection-OH line. Scan completed 8/06 | Completed | 8/28/2006 | Reduced outage risk. |
| | 4/30/2006: Expanded Operational Review. Profile complete 9/21/06<br>Reliability completed 2005 SAIDI | Completed | 11/2/2006 | Reduced customer count affected by each outage. See subsequent records for reliability |
| | Relocate inaccesssible line. Remove inaccessable single phase line to improve performance-Holding for R/W | Completed | 11/2/2006 | Reduced outage duration. |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| **28** | **Circuit ID: 60802 BUCK 08-02** | | | **Location: Lancaster East** **CPI: 703** |
| | Thermographic inspection-OH line. | Completed | 2/1/2007 | Reduced outage risk. |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| | 1/1/2007: Expanded Operational Review. | EOR planned | 12/31/2007 | |

| Rank | Action | Status | Due/Complete | Result |
|---|---|---|---|---|
| **29** | **Circuit ID: 53602 DALMATIA 36-02** | | | **Location: Harrisburg** **CPI: 690** |
| | Line inspection-equipment. | Completed | 8/31/2005 | Found a pole on an island in the river crossing requiring replacement due to bank erosion. |
| | Circuit outage data analysis. | Completed | 10/31/2005 | Inconclusive. Monitor future performance. Outage on 8/11/05 due to trees - not trimming related. Trees trimmed. |
| | Tree trimming. Main portion of the 3 phase line, to the OCRs. | Completed | 12/30/2005 | Reduced outage risk. |
| | 2/17/2006: Tree trimming-selected line segments only (hot spots). | Completed | 2/17/2006 | 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. |
| | 3/1/2006: Install 3 phase OCR(s). A 3-phase OCR will be relocated to just prior to the worst tree-exposed portion of the line along the Susquehanna. | Completed | 3/14/2006 | Reduced customer count affected by each outage. |
| | Tree trimming-selected line segments only (hot spots). Extensive trimming outside of ROW. | Completed | 3/31/2006 | Reduced outage risk. |
| | 5/17/2006: Circuit outage data analysis. | Completed | 5/17/2006 | 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. |
| | 1/1/2006: Expanded Operational Review. Operational Review will be completed in 2006 - Voltage profile and outage history analysis. Reliability Review Complete 7/11/2006. | Completed | 7/1/2006 | 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 |
| | Thermographic inspection-OH line. | Completed | 9/20/2006 | Reduced outage risk. |
| | 2/14/2006: Tree trimming. Remainder of line. | Completed | 10/30/2006 | Reduced outage risk. |
| | Install fuse(s). Additional fusing- West Shore portion of ckt | Completed | 11/30/2006 | Reduced customer count affected by each outage. Install 5 tap fuses WR#326196 |
| | Line inspection-equipment. Field patrol 21 rural circuit miles. | Completed | 3/14/2007 | Reduced outage risk. |
| | Improve sectionalizing capability. Engineering to evaluate benefits of telemetric controlled OCR locations | Completed | 5/15/2007 | Reduced outage duration. |
| | Replace pole on island in the river crossing weakened due to bank erosion. | Scheduled for | 10/30/2007 | 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 10/30/07. |
| **30** | **Circuit ID: 11302 EMMAUS 13-02** | | | **Location: Lehigh** **CPI: 675** |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |

| *Rank* | *Action* | *Status* | *Due/Complete* | *Result* |
|---|---|---|---|---|
| **31** | **Circuit ID: 14604 SO WHITEHALL 46-04** | | | **Location: Lehigh** **CPI: 673** |
| | Install Fault Indicators | Completed | 5/10/2006 | Reduced outage duration. |
| | Expanded 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. |
| | Load balancing. Changing one tap to different phase. | Completed | 7/6/2006 | Engineering complete. Awaiting field completion. Tap change completed. |
| | Thermographic inspection-OH line. | Completed | 8/17/2006 | Reduced outage risk. |
| | 10/9/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 11/27/2006 | This circuit experienced 3 storms during the 3rd quarter of 2006 including tropical storm Ernesto which resulted in several outages due to trees on the line. |
| | Install Fault Indicators. | Completed | 3/16/2007 | Reduced outage duration. Engineering complete 6/27/06. Awaiting completion in field. |
| | Tree trimming. | Completed | 2/1/2007 | Reduced outage risk. |
| | 4/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 5/24/2007 | This circuit experienced several storms in the second and third quarters of 2006. During the fourth quarter of 2006 and the first quarter of 2007 this circuit had few cases of trouble; consequently, the CPI was very low during those quarters. The feeder was trimmed in January 2007. |
| | Line inspection-equipment. | Scheduled for | 12/31/2007 | Reduced outage risk. |
| **32** | **Circuit ID: 13904 SEIDERSVILLE 39-04** | | | **Location: Bethlehem** **CPI: 672** |
| | 1/1/2007: Expanded Operational Review. | EOR planned | 12/31/2007 | |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| **33** | **Circuit ID: 27901 BEAR CREEK 79-01** | | | **Location: Wilkes-Barre** **CPI: 643** |
| | 7/16/2005: Perform line maintenance identified by line inspection. | Completed | 9/28/2005 | Reduced outage risk. |
| | Improve sectionalizing capability. | Scheduled for | 7/27/2007 | Reduced customer count affected by each outage. |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |

| *Rank* | *Action* | *Status* | *Due/Complete* | *Result* |
|---|---|---|---|---|
| **34** | **Circuit ID: 15601 NO STROUDSBURG 56-01** | | | **Location: Pocono** **CPI: 636** |
| | Line inspection-vegetation. Forester will perform a vegetation line inspection and perform hot spot trimming as required. | Completed | 7/28/2005 | Results sent to field for review. Hot spotting will be scheduled as needed. |
| | Install fuse(s). WR# 218967, WR# 224357, WR# 224423: OCR and fuse installation; | Completed | 12/30/2005 | Fuses and OCRs were installed to reduce the number of customers experiencing an outage |
| | Thermographic inspection-OH line. This circuit will be thermovisioned to help identify failed equipment. | Completed | 9/30/2006 | Reduced outage risk. Nothing found. |
| | 11/22/2005: Tree trimming. . | Completed | 12/31/2006 | Reduced outage risk. completed |
| | 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. |
| | 1/1/2007: Expanded Operational Review. | Completed | 2/26/2007 | Reduced outage risk. Voltage profile complete. Sectionalizing study complete. New L/T 56-04 scheduled for end of this year will relieve the 56-01 of load, thus reducing outage risk and improving voltage support. |
| **35** | **Circuit ID: 60903 DONEGAL 09-03** | | | **Location: Lancaster** **CPI: 632** |
| | 6/29/2007: Install animal guard(s). Install animal guards on LBAS - 34300s28596, 34667s28517, 34732s28502 | Scheduled for | 8/30/2007 | Reduced outage risk. |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |

| Rank | Action | Status | Due/Complete | Result |
|---|---|---|---|---|
| **36** | **Circuit ID: 28601 BLYTHEBURN 86-01** | | | **Location: Wilkes-Barre** **CPI: 627** |
| | 10/10/2005: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 11/21/2005 | March Snowstorm is the main contributor this circuit performance. Only one signifigant outage since. |
| | 12/8/2005: Line inspection-equipment. | Completed | 1/31/2006 | Reduced outage risk. Line Maintenance Inspection should proactively prevent equipment failures. |
| | Line inspection-equipment.<br>Replace bridges disconnects on sub getaway with air load break disconnects. | Completed | 5/16/2006 | Reduced outage duration. |
| | Line inspection-equipment. Inspection by Line Maintenance Inspector. | Completed | 5/17/2006 | |
| | Expanded Operational Review.<br>Voltage profile complete 6/13/2006.<br>Reliability review complete 5/16/2006. | Completed | 6/13/2006 | |
| | Install sectionalizers. Replace bridges disconnects at substation getaway with air load break disconnects. | Completed | 10/13/2006 | Reduced outage duration. |
| | 12/8/2005: Install sectionalizers. Hazelton office investigating fusing of long single phase taps. | Completed | 6/15/2006 | Should reduce customer count affected by each outage. |
| | Perform line maintenance identified by line inspection. | Completed | 10/27/2006 | Reduced outage risk. |
| | Thermographic inspection-OH line. | Completed | 3/23/2006 | Reduced outage risk. Thermovision inspection performed on 3/23/06. |
| | 1/9/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 2/28/2007 | December 1st 2006: Tornado damaged portions of primary conductor outside of the substation. Probability of a similar storm is small. Improved transfer capability could have restored customers sooner. |
| | Thermographic inspection-OH line. | Completed | 3/16/2007 | No problem areas found. |
| | Monitor future performance. | Ongoing | | |
| **37** | **Circuit ID: 22601 KIMBLES 26-01** | | | **Location: Pocono** **CPI: 625** |
| | 7/11/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | 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. | Completed | 7/8/2006 | Reduced outage risk. Improved reliability by reducing the line's tree exposure thereby limits potential tree contact related outages |
| | 11/2/2006: Improve sectionalizing capability. A telemetrics OCR was installed on this line | Completed | 12/1/2006 | |
| | 10/16/2006: Monitor future performance. | Ongoing | | |

| Rank | Action | Status | Due/Complete | Result |
|---|---|---|---|---|
| **38** | **Circuit ID: 24603 VARDEN 46-03** | | | **Location: Pocono** **CPI: 619** |
| | 4/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 5/31/2007 | No large outages occurred in the first quarter of 2007. However, there were three long-duration outages in December 2007 which contributed to the circuit's performance. In addition, a circuit breaker outage in August 2006 also contributed significant customer minutes lost. These older outages were important in making this circuit a worst perfomer. |
| | 1/1/2007: Expanded Operational Review. | Completed | 6/7/2007 | Reduced outage risk. Voltage profile completed. Reliabillity study completed. |
| **39** | **Circuit ID: 24602 VARDEN 46-02** | | | **Location: Pocono** **CPI: 616** |
| | 10/9/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 11/30/2006 | The greatest contributor to the CPI was vegetation related outages. Approximately 72% of the total outages on the line were due to vegetation related outages; however, 70% of the total CPI was due to non-trimming related vegetation issues. The majority of three-phase outage was under storm or bad weather conditions. |
| | 11/2/2006: Tree trimming. The line will be trimmed and danger trees will be identified and removed | Scheduled for | 7/30/2007 | |
| | Monitor future performance. | Ongoing | | |
| | 1/1/2007: Expanded Operational Review. | Completed | 6/7/2007 | Reduced outage risk. Voltage profile completed. Reliability study completed. |
| **40** | **Circuit ID: 16405 MOUNT POCONO 64-05** | | | **Location: Pocono** **CPI: 614** |
| | 10/10/2005: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 11/22/2005 | A vehicle hit was the cause of three different device operations. It also caused significant customer outages. This is not expected to occur again. |
| | 4/10/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 12/31/2006 | Inconclusive. Monitor future performance. |
| | 1/1/2007: Expanded Operational Review. | Completed | 6/25/2007 | Reduced outage risk. Voltage profile complete. Reliability profile complete. |
| | Line inspection-equipment. | Completed | 9/30/2006 | Inconclusive. Monitor future performance. Inspection Completed - No specific reliability issues discovered |
| | 11/22/2005: Monitor future performance. | Ongoing | | |
| | 1/9/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 2/28/2007 | Inconclusive, Monitor future performance |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| **41** | **Circuit ID: 63402 HONEYBROOK 34-02** | | | **Location: Lancaster East** **CPI: 609** |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |

| *Rank* | *Action* | *Status* | *Due/Complete* | *Result* |
|---|---|---|---|---|
| **42** | **Circuit ID: 53902 HALIFAX 39-02** | | | **Location: Harrisburg** **CPI: 595** |
| | Thermographic inspection-OH line. | Completed | 9/15/2006 | Reduced outage risk. |
| | Install fuse(s). Install 6 Fuses | Completed | 12/21/2006 | Reduced customer count affected by each outage. |
| | Expanded Operational Review. | Completed | 12/21/2006 | Field check 6 unfused taps. Provide tree hot-spot locations to foresters. |
| | 4/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 5/29/2007 | Tornado in 4th quarter of 2006 major contributing factor to CPI. Good performance the rest of year. |

| *Rank* | *Action* | *Status* | *Due/Complete* | *Result* |
|---|---|---|---|---|
| **43** | **Circuit ID: 45302 WEST BERWICK 53-02** | | | **Location: Sunbury** **CPI: 594** |
| | Circuit outage data analysis. | Completed | 8/22/2005 | CPI was driven by SAIFI (3.421; 41% of CPI). 100% of the high CPI during the second quarter 2004 occurred on 6-17-04 when approximately 850 customers experienced outages ranging from 3 to 5 hrs due to trees inadequately trimmed. 100% of the high CPI reported during the 3rd quarter of 2004, on West Berwick 53-2 is due to the 9/18/2004 hurricane IVAN, approximately 1,800 customers experienced outages ranging from 7 hrs to 57 hrs, mainly due to trees off the right of way falling into the over head lines. However, approximately 183 of these 1800 customers experienced a 51 hr outage during the hurricane from trees inadequate trimming. No major outages in Q4, 2005. The long outages in the first quarter 2005 were on 3/23/05 because of the snow and ice storm, which caused floods. A major storm on 6/6/2005 caused long duration outages on this circuit in the second quarter of 2005. Animals also caused some long outages in the second quarter of 2005. |
| | Tree trimming. | Completed | 9/30/2005 | 19 urban miles were last trimmed in 2004, and scheduled for tree trimming next year. Approximately 57 rural miles were trimmed in 2005. An additional hot spotting will be done on this circuit as needed in the future. |
| | Line inspection-equipment. | Completed | 9/30/2005 | line inspection was conducted in January of 2005 on 47 miles of this circuit. This circuit was patrolled in the winter of 2004, and completed by December 2004. There were 16 items identified for repair/replacement, and work requests were written for each including requests to replace additional TFC's on Kachinka Hollow Rd. Work was completed by the third quarter of 2005. The region will install animal guards where needed on this circuit. |
| | Monitor future performance. | Ongoing | | Scheduled tree trimming and other in-progress work is expected to improve this circuit's performance. PPL will continue to monitor this circuit's performance in the future. |
| | 4/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 5/24/2007 | The circuit breaker outage on 2/7/07 due to a vehicle hit was the major contribution to the CPI on this circuit. No other major outages have been identified on this circuit in the Q1, 2007. |
| | Install 1 phase OCR(s). | Scheduled for | 12/31/2007 | Reduced customer count affected by each outage. |
| | Install fuse(s). | Scheduled for | 12/31/2007 | Reduced customer count affected by each outage. |
| | Relocate inaccesssible line. | Scheduled for | 6/1/2008 | Reduced customer count affected by each outage. |
| | Monitor future performance. | Ongoing | | |

| *Rank* | *Action* | *Status* | *Due/Complete* | *Result* |
|---|---|---|---|---|
| **44** | **Circuit ID: 12102 SO ALLENTOWN 21-02** | | | **Location: Lehigh** **CPI: 590** |
| | Install Fault Indicators. | Completed | 3/30/2006 | Reduced outage duration. |
| | Thermographic inspection-OH line. | Completed | 8/17/2006 | Reduced outage risk. |
| | 10/9/2006: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 11/27/2006 | This circuit experienced storms in June and July 2006 where tree limbs fell on the line resulting in long outages. |
| | Install 3 phase OCR(s). | In progress | 7/31/2007 | Reduced customer count affected by each outage. |
| | Expanded Operational Review. Reliability Review completed 9/6/06.<br>Operational Review completed 12/6/06. | Completed | 12/6/2006 | |
| | Relocate inaccesssible line. | Scheduled for | 9/28/2007 | Reduced outage risk. |
| | Improve sectionalizing capability. | Completed | 1/19/2007 | Reduced outage duration. |
| | Line inspection-equipment. | Scheduled for | 12/31/2007 | Reduced outage risk. |
| **45** | **Circuit ID: 42301 MOWRY 23-01** | | | **Location: Central** **CPI: 581** |
| | 2/8/2007: Expanded Operational Review. Voltage Profile in Progrss. Reliability Review Completed on 2/08/07. Reliability WR Review in Progress. | EOR initiated | 12/31/2007 | Reliabilty review completed 2/8/07 |
| | Install 3 phase OCR(s). | In progress | 12/31/2007 | WR 359754 Install New OCR at 38159s52397 in Lavelle before line extends across country. |
| | Install LBAS(s). | Completed | 7/13/2007 | Reduced outage duration. WR 359759 Install New gang operated Air Brake switch near State Prison on RT 901 |
| | Reconductor line. | In progress | 12/31/2007 | Asset Mgmt-Reconductor Fountain Springs Tie. |
| | Improve sectionalizing capability. | In progress | 12/31/2007 | Reduced customer count affected by each outage. WR 385933 Relocate existing three phase Saw Mill Tap OCR. |
| | Improve sectionalizing capability. | Scheduled for | 8/15/2007 | Reduced outage duration. WR 385973 Install Fault Indicators on exiting load break air switch |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| **46** | **Circuit ID: 22402 MORGAN 24-02** | | | **Location: Scranton** **CPI: 578** |
| | Expanded Operational Review. | Completed | 9/30/2006 | Inconclusive. Monitor future performance. Voltage Profile Completed 06/01/2006. Reliability Profile Completed 09/29/2006. |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |

| Rank | Action | Status | Due/Complete | Result |
|---|---|---|---|---|
| **47** | **Circuit ID: 16401 MOUNT POCONO 64-01** | | | **Location: Pocono** **CPI: 572** |
| | 11/22/2005: Coordination Study of devices of the line | Completed | 11/30/2005 | The results of the coordination study were normal. All devices are coordinating properly. |
| | Continue to monitor future performance. | Ongoing | | |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| **48** | **Circuit ID: 27101 GREENFIELD 71-01** | | | **Location: Scranton** **CPI: 562** |
| | Coordination study to look at an overtripping OCR outside the sub | Completed | 9/15/2005 | Results sent to field and setting kept in favor of fewer fuse operations. |
| | 11/22/2005: Circuit Breaker being studied by Field Engineer to see if it is functioning properly | Completed | 6/30/2006 | |
| | 12/15/2006: Install LBAS(s). Installed new normally closed LABS with fault indicators to assist with restoration efforts at pole 58659N54918 on Rt 106. | Completed | 12/1/2006 | Reduced outage duration. Installed new normally closed LABS with fault indicators to assist with restoration efforts at pole 58659N54918 on Rt 106. |
| | 1/9/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 2/28/2007 | Two large three phase events in the fourth quarter occurred under storm conditions. There two outages contributed over 429,000 customer minutes lost. During one of these events, a second outage occurred while the first outage was being restored. |
| | Expanded Operational Review. | Scheduled for | 9/30/2007 | |
| | Investigate installing telemetrics OCR's at multiple locations | Completed | 3/30/2007 | Results passed on to System Operations for review |
| | Monitor future performance. | Ongoing | | |
| **49** | **Circuit ID: 26601 BROOKSIDE 66-01** | | | **Location: Scranton** **CPI: 559** |
| | Expanded Operational Review. | Completed | 7/31/2006 | Voltage Profile Completed 7/25/2006. Reliability Profile Completed 09/29/2006. |
| | Monitor future performance. | Ongoing | | |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| **50** | **Circuit ID: 16403 MOUNT POCONO 64-03** | | | **Location: Pocono** **CPI: 557** |
| | 1/1/2007: Expanded Operational Review. | Completed | 7/12/2007 | Reduced outage risk. Voltage profile complete. Sectionalizing study complete. Add 2 LBASs along SR196 at/near 65803N36266 and 65861N36828 for sectionalizing purposes. |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |

| *Rank* | *Action* | *Status* | *Due/Complete* | *Result* |
|---|---|---|---|---|
| **51** | **Circuit ID: 40503 CRESSONA 05-03** | | | **Location: Central** **CPI: 555** |
| | 2/23/2006: Expanded Operational Review. Voltage Profile Completed in 2005, Reliability Review Completed 2/23/2006, Field WR Review Completed 8/30/2006. | Completed | 8/30/2006 | Reliability review completed 2/23/06 Investigate feeding single phase tap at Fawn Cove Drive in Lake Wynonah from outside the gated development. Investigate reconductoring the tie between the Cressona #2 and #3 from below Lake Wynonah South to SR 895. |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |
| **52** | **Circuit ID: 64202 KINZER 42-02** | | | **Location: Lancaster** **CPI: 550** |
| | Continue to monitor performance | Completed | 8/31/2005 | 23% of this circuit's CPI was attributed to two failed poles during a wind storm. |
| | 7/10/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |

| Rank | Action | Status | Due/Complete | Result |
|---|---|---|---|---|
| **53** | **Circuit ID: 56802 BENVENUE 68-02** | | | **Location: West Shore** **CPI: 547** |
| | Circuit outage data analysis. | Completed | 8/31/2005 | On 6/6 and 6/7/05 during high winds outages due to trees-not trimming related. |
| | 5/27/2005: Perform line maintenance identified by line inspection. Replace identified insulators, dead ends and pole-to-pole guy. Nothing found. | Completed | 9/30/2005 | Reduced outage risk. |
| | Monitor future performance. | Completed | 12/31/2005 | No longer among 5% worst performing circuits. |
| | Tree trimming. Trimming West Shore portion of circuit | Completed | 12/30/2006 | |
| | 1/9/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Completed | 2/28/2007 | Reviewed 49%CPI due to cases and 40% due to SAIFI. |
| | 1/1/2007: Expanded Operational Review. Reliability Review completed 3/11/2007. | Completed | 3/11/2007 | |
| | Thermographic inspection-OH line. Completed no repair items identified. | Completed | 3/15/2007 | Reduced outage risk. |
| | 5/29/2007: Tree trimming-selected line segments only (hot spots). Hot spotted several locations in response to customer complaints. | Completed | 3/31/2007 | Reduced outage risk. |
| | Install fuse(s). Install 10 tap fuses | Completed | 4/30/2007 | Reduced customer count affected by each outage. |
| | Install fuse(s). Install 3 tap fuses | Completed | 5/2/2007 | Reduced customer count affected by each outage. |
| | Install 1 phase OCR(s). Install new single phase OCR and four additional tap fuses | Completed | 6/13/2007 | Reduced customer count affected by each outage. |
| | Install 1 phase OCR(s). Install new single phase OCR and one additional tap fuse | Completed | 6/13/2007 | Reduced customer count affected by each outage. |
| | Improve sectionalizing capability. | Scheduled for | 9/28/2007 | Reduced outage duration. WR# 358213 - West Shore WR# 358208 - East Shore. Work request issued to add Air Disconnect Switches on 12kV 750 riser poles on both sides of the Rt. 22/322 bridge river crossing to reduce future outage minutes when the river crossing cable must be isolated as was experienced in the 4th quarter 2006 tractor trailer accident. |
| | 5/29/2007: Tree trimming. 40 mile portion on East Shore | Scheduled for | 12/31/2007 | Reduced outage risk. |
| **54** | **Circuit ID: 45303 WEST BERWICK 53-03** | | | **Location: Sunbury** **CPI: 544** |
| | 7/10/2007: Circuit outage data analysis. | Scheduled for | 8/31/2007 | |
| | Circuit outage data analysis - WPC not on preceding qtr. list. | Ongoing | 10/31/2007 | Reduced customer count affected by each outage. |
| **55** | **Circuit ID: 42801 SELINSGROVE 28-01** | | | **Location: Sunbury** **CPI: 539** |
| | 7/12/2007: Circuit outage data analysis - WPC not on preceding qtr. list. | Scheduled for | 8/31/2007 | |

*(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 (Equipment Failure, Animals, 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[8] | Percent of Trouble Cases | Customer Interruptions[9] | Percent of Customer Interruptions | Customer Minutes | Percent of Customer Minutes |
|---|---|---|---|---|---|---|
| Improper Design | 1 | 0.00% | 1 | 0.00% | 109 | 0.00% |
| Improper Installation | 2 | 0.01% | 6,039 | 0.37% | 500,048 | 0.19% |
| Improper Operation | 4 | 0.02% | 3,426 | 0.21% | 169,183 | 0.06% |
| Trees - Inadequate Trimming | 1,483 | 6.62% | 107,445 | 6.55% | 22,313,275 | 8.33% |
| Trees - Not Trimming Related | 4,176 | 18.65% | 448,019 | 27.29% | 111,871,072 | 41.76% |
| Animals | 5,441 | 24.30% | 73,827 | 4.50% | 5,791,690 | 2.16% |
| Vehicles | 810 | 3.62% | 169,312 | 10.31% | 19,197,970 | 7.17% |
| Contact/Dig-in | 196 | 0.88% | 23,192 | 1.41% | 1,391,375 | 0.52% |
| Equipment Failure | 5,752 | 25.69% | 527,301 | 32.12% | 73,609,571 | 27.47% |
| Forced Prearranged | 485 | 2.17% | 26,938 | 1.64% | 1,953,923 | 0.73% |
| Other - Controllable | 293 | 1.31% | 22,271 | 1.36% | 2,026,667 | 0.76% |
| Nothing Found | 2,220 | 9.91% | 129,606 | 7.90% | 13,381,864 | 4.99% |
| Other - Public | 105 | 0.47% | 16,872 | 1.03% | 2,852,256 | 1.06% |
| Other - Non-Controllable | 1,424 | 6.36% | 87,211 | 5.31% | 12,858,122 | 4.80% |
| **Total** | **22,392** | **100.00%** | **1,641,460** | **100.00%** | **267,917,125** | **100.00%** |

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

[9] 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 2007, PPL Electric adopted shortened maintenance trimming cycles for both urban and rural circuits to improve reliability. The shortened cycle times took effect on January 1, 2007.

**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 24% 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 89% 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, 48% of the customer interruptions and 56% 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 Budget | 2nd Quarter | | Year-to-date | |
|---|---|---|---|---|---|
| | | Budget | Actual | Budget | Actual |
| **Transmission** | | | | | |
| Transmission C-tag poles (# of poles) | 248 | 68 | 81 | 109 | 132 |
| Transmission arm replacements (# of sets) | 1,200 | 282 | 344 | 511 | 623 |
| Transmission lightning arrester installations (# of sets) | 50 | 12 | 33 | 32 | 44 |
| Foot patrols (# of miles) | 1,350 | 807 | 234 | 1,350 | 799 |
| Transmission air break switch inspections (# of) | 60 | 12 | 23 | 22 | 34 |
| Transmission tree trimming (# of linear feet) | 395,204 | 151,549 | 178,393 | 219,322 | 246,312 |
| Transmission herbicide (# of acres) | 4,002 | 885 | 1228 | 900 | 1,247 |
| **Substation** | | | | | |
| Substation batteries (# of activities) | 859 | 242 | 98 | 525 | 710 |
| Circuit breakers (# of activities) | 3,198 | 912 | 583 | 1,946 | 1,493 |
| Substation inspections (# of activities) | 1,363 | 430 | 439 | 470 | 1,093 |
| Transformer maintenance (# of activities) | 2,038 | 582 | 475 | 1,239 | 1,012 |
| **Distribution** | | | | | |
| Distribution C-tag poles replaced (# of poles) | 2,446 | 709 | 696 | 1,613 | 1,656 |
| C-truss distribution poles (# of poles) | 559 | 176 | 272 | 176 | 353 |
| Capacitor (MVAR added) | 85 | 35 | 39 | 65 | 72 |
| OCR replacements (# of) | 510 | 155 | 120 | 325 | 400 |
| Oil Switch replacements (# of) | 120 | 30 | 9 | 60 | 29 |
| Distribution air break switch inspections (# of) | 258 | 65 | 76 | 129 | 107 |
| Distribution pole inspections (# of poles) | 88,176 | 33,066 | 29,801 | 33,066 | 30,256 |
| Distribution line inspections (# of miles) | 3,000 | 623 | 245 | 2,372 | 1,630 |
| Group relamping (# of lamps) | 18,500 | 4,625 | 6,150 | 9,250 | 8,350 |
| Test sections of underground distribution cable | 850 | 213 | 270 | 425 | 445 |
| Distribution tree trimming (# of miles) | 5,500 | 1,443 | 1,324 | 2,506 | 2,473 |
| Distribution herbicide (# of acres) | 845 | 100 | 65 | 100 | 65 |
| LTN manhole inspections (# of) | 506 | 146 | 144 | 224 | 237 |
| LTN vault inspections (# of) | 594 | 171 | 112 | 263 | 254 |
| LTN network protector overhauls (# of) | 77 | 22 | 29 | 34 | 43 |
| LTN reverse power trip testing (# of) | 116 | 33 | 25 | 51 | 52 |

*(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).

| | 2nd Quarter | | Year-to-date | |
|---|---|---|---|---|
| **Activity** | **Budget** ($1,000s) | **Actual** ($1,000s) | **Budget** ($1,000s) | **Actual** ($1,000s) |
| Provide Electric Service | 3,182 | 3,205 | 6,347 | 6,546 |
| Vegetation Management | 8,085 | 6,324 | 12,786 | 11,526 |
| Customer Response | 11,833 | 17,168 | 24,316 | 27,008 |
| Reliability & Maintenance | 16,599 | 17,945 | 31,700 | 31,227 |
| System Upgrade | 1,946 | 1,170 | 4,057 | 2,421 |
| Customer Services/Accounts | 19,975 | 18,090 | 38,872 | 35,197 |
| Others | 22,963 | 22,275 | 46,299 | 46,245 |
| **Total O&M Expenses** | **84,583** | **86,177** | **164,376** | **160,169** |

(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.

| | 2nd Quarter | | Year-to-date | |
|---|---|---|---|---|
| | **Budget** ($1,000s) | **Actual** ($1,000s) | **Budget** ($1,000s) | **Actual** ($1,000s) |
| New Service/Revenue | 21,609 | 19,812 | 43,311 | 39,501 |
| System Upgrade | 22,511 | 26,663 | 46,270 | 39,920 |
| Reliability & Maintenance | 13,730 | 12,381 | 26,487 | 24,808 |
| Customer Response | 2,879 | 5,442 | 5,681 | 9,294 |
| Other | 5,537 | 3,193 | 10,989 | 10,608 |
| **Total** | **66,266** | **67,491** | **132,738** | **124,131** |

The following table provides revised 1st Quarter capital expenditures for PPL Electric, as a whole, which includes transmission and distribution ("T&D") activities. The revised numbers exclude Facilities Management and Technology projects to be consistent with reporting in prior years.

| | 1st Quarter | | Year-to-date | |
|---|---|---|---|---|
| | **Budget** ($1,000s) | **Actual** ($1,000s) | **Budget** ($1,000s) | **Actual** ($1,000s) |
| New Service/Revenue | 21,701 | 19,690 | 21,701 | 19,690 |
| System Upgrade | 23,759 | 13,256 | 23,759 | 13,256 |
| Reliability & Maintenance | 12,757 | 12,427 | 12,757 | 12,427 |
| Customer Response | 2,802 | 3,852 | 2,802 | 3,852 |
| Other | 5,452 | 7,415 | 5,452 | 7,415 |
| **Total** | **66,471** | **56,640** | **66,471** | **56,640** |

*(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[10] are provided in Appendix C.

| **Transmission and Distribution (T&D)** | |
|---|---|
| Lineman Leader | 77 |
| Journeyman Lineman | 169 |
| Journeyman Lineman-Trainee | 107 |
| Helper | 31 |
| Groundhand | 59 |
| Troubleman | 58 |
| **T&D Total** | **501** |
| **Electrical** | |
| Elect Leaders-UG | 9 |
| Elect Leaders-Net | 7 |
| Elect Leaders-Sub | 28 |
| Journeyman Elect-UG | 25 |
| Journeyman Elect-Net | 12 |
| Journeyman Elect-Sub | 61 |
| Journeyman Elect Trainee-UG | 23 |
| Journeyman Elect Trainee-Net | 13 |
| Journeyman Elect Trainee | 23 |
| Helper | 28 |
| **Electrical Total** | **229** |
| **Overall Total** | **730** |

[10] Some job titles and position descriptions were changed as a result of the new labor agreement ratified in 2006.

**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:

- SAIDI - 35%
- SAIFI - 30%
- Fraction of customers interrupted more than three times - 20%
- Fraction of customers with an interruption over four hours - 15%

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, 2001-2005. Average values over this period were:

- SAIDI – 121.9 per customer per year
- SAIFI – 0.929 per customer per year
- Fraction of customers interrupted more than three times - 4% per feeder per year
- Fraction of customers with an interruption over four hours - 10% per feeder per year

A hypothetical feeder with the values of SAIDI, SAIFI, and the fraction of customers interrupted more than three times, and the fraction of customers with an interruption over four hours, equal to the 5-year averages would have a CPI value of 100. Any variations in the values of the above criteria would affect the CPI values in accordance with the weighting factors.

**Appendix B**

# *PPL Electric Utilities Corporation*
# *Service Interruption Definitions*

**Trouble Definitions:** 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.).<br>• When contact is made by a non-employee with an underground facility causing interruption. |

| | | |
|---|---|---|
| 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.<br>• Outages resulting from a component wearing out due to age or exposure, including fuse tearing or breaking.<br>• Outages resulting from a component or substance comprising a piece of equipment failing to perform its intended function.<br>• 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[11] | 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.<br>• 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.<br>• 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. |

[11] 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 immediately, but are reported as scheduled prearranged when the interruption is postponed.

| | | |
|---|---|---|
| 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.<br>• Interruptions resulting from excessive load that cause that facility to fail.<br>• 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-Controllable | • When no cause for the interruption can be found.<br>• 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.<br>• 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.<br>• 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.<br>• All interruptions caused by contact of energized equipment with facilities of other attached companies or by trouble on customer owned equipment. |

**Appendix C**

# *PPL Electric Utilities Corporation*
# *Job Descriptions*

***Transmission and Distribution***

| | |
|---|---|
| Groundhand | • Performs manual labor and assists employees in higher job classifications. |
| Helper | • Performs semi-skilled labor at any work location on de-energized overhead and underground transmission, and distribution facilities to prepare the employee for entrance into the Journeyman Lineman Apprenticeship Program. |
| Journeyman Lineman | • Works by himself or as part of a crew on the maintenance, operation, and construction activities of the transmission and distribution systems associated with, but not limited to, PPL Electric facilities. |
| Journeyman Lineman-Trainee | • Works by himself or as part of a crew on the maintenance, operation, and construction activities of the transmission and distribution systems associated with, but not limited to, PPL Electric facilities. |
| Lineman Leader | • Responsible for completing assigned work by directing one or multiple groups of employees involved in the maintenance, operation, and construction activities of the transmission and distribution systems associated with, but not limited to, PPL Electric facilities.<br>• Engage in and perform work along with providing the necessary leadership, all-around knowledge, initiative, judgment, and experience to produce a quality job.<br>• Performs all the direct duties of the Journeyman Lineman when not acting as a Lineman Leader. |
| Troubleman | • Investigates and resolves trouble calls, voltage abnormalities on transmission and distribution systems associated with, but not limited to, PPL Electric facilities. |

## Appendix C

*Electrical*

| | |
|---|---|
| Electrician Leader<br>- Substation<br>- Network<br>- Underground | • Responsible for completing assigned work by directing one or multiple groups of employees involved in the construction and maintenance activities of the transmission and distribution systems associated with, but not limited to, PPL Electric facilities.<br>• Engage in and perform work along with providing the necessary leadership, all-around knowledge, initiative, judgment, and experience to produce a quality job.<br>• Performs all direct duties of the Journeyman Electrician when not acting as a leader. |
| Helper<br>- Substation<br>- Network<br>- Underground | • Performs manual labor at any work location including those areas containing non-exposed energized electrical equipment, and to prepare the employee for entrance into the Apprenticeship Program. |
| Laborer<br>- Substation<br>- Network<br>- Underground | • Performs manual labor and assists employees in higher job classifications. |
| Journeyman Electrician<br>- Substation<br>- Network<br>- Underground | • Normally under limited supervision performs and is responsible for work associated with, but not limited to, PPL Electric facilities involving the highest degree of skill in construction and maintenance work associated with substations, LTN or underground distribution and transmission.<br>• Uses microprocessor based equipment for troubleshooting and revising relay logic and its control systems related to the Field Services electrical discipline. |
| Journeyman Electrician - Trainee<br>- Substation<br>- Network<br>- Underground | • Normally under limited supervision performs and is responsible for work associated with, but not limited to, PPL Electric facilities involving the highest degree of skill in construction and maintenance work associated with substations, LTN or underground distribution and transmission.<br>• Uses microprocessor based equipment for troubleshooting and revising relay logic and its control systems related to the Field Services electrical discipline. |

**Robert R. Stoyko**
Vice President - Electric Distribution

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July 30, 2007

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



**SENT VIA FEDERAL EXPRESS**

Dear Secretary McNulty:

RE: **Quarterly Electric System Reliability Report**
**12 Months Ending June 30, 2007**

Pursuant to the Commission's May 7, 2004 Final Rulemaking Order amending 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 June 30, 2007 along with the raw data from the same period. The actual statistics continue to be favorable to both the benchmark and standard adopted for UGI. Also included is a breakdown of outages by cause for the 12 months ending June 30, 2007.

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 Division

Attachment

cc: **FEDERAL EXPRESS**

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ORIGINAL

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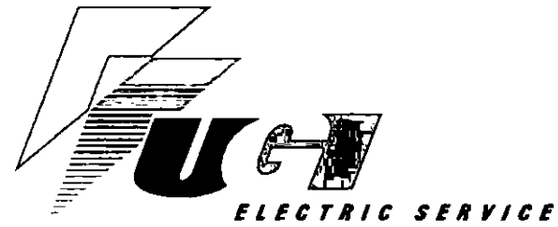


# UGI Utilities, Inc. – Electric Division
# System Reliability Report:
# Quarterly Update



August 1, 2007

**§ 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 June, 2007 | .68 | 103 | 150 |

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

**Raw Data: July 2006 - June 2007**

| Month | SI | TCI | TCB | TMCI |
|---|---|---|---|---|
| Jul-2006 | 61 | 755 | 61,780 | 144,081 |
| Aug-2006 | 61 | 5,937 | 61,829 | 475,143 |
| Sep-2006 | 52 | 3,273 | 61,869 | 281,956 |
| Oct-2006 | 46 | 4,878 | 61,798 | 318,041 |
| Nov-2006 | 40 | 2,310 | 61,999 | 349,741 |
| Dec-2006 | 65 | 6,077 | 62,029 | 952,837 |
| Jan-2007 | 12 | 242 | 62,085 | 19,314 |
| Feb-2007 | 13 | 91 | 62,134 | 10,983 |
| Mar-2007 | 28 | 1,173 | 62,163 | 132,863 |
| Apr-2007 | 77 | 6,367 | 62,001 | 968,682 |
| May-2007 | 26 | 857 | 61,909 | 232,644 |
| Jun-2007 | 123 | 10,461 | 61,854 | 2,481,067 |
| *TOTAL* | *604* | *42,421* | *61,954 ** | *6,367,352* |

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.**

**§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: July 2006 - June 2007

| Cause | % of Total Incidents | Number of Interruptions | Customers Interrupted | Minutes Interrupted |
|---|---|---|---|---|
| Animal | 11.09% | 67 | 2,573 | 172,236 |
| Company Agent | 0.17% | 1 | 50 | 750 |
| Construction Error | 0.66% | 4 | 32 | 7,389 |
| Customer Problem | 0.50% | 3 | 4 | 704 |
| Equipment Failure | 34.60% | 209 | 12,968 | 948,462 |
| Lightning | 6.79% | 41 | 1,022 | 281,296 |
| Motor Vehicle | 5.13% | 31 | 9,100 | 915,391 |
| Other | 0.66% | 4 | 22 | 2,510 |
| Public | 1.82% | 11 | 217 | 20,293 |
| Structure Fire | 0.33% | 2 | 12 | 1,610 |
| Trees | 28.15% | 170 | 9,802 | 2,799,067 |
| Unknown | 4.64% | 28 | 2,171 | 367,752 |
| Weather/Ice | 0.33% | 2 | 24 | 12,118 |
| Weather/Wind | 5.13% | 31 | 4,424 | 837,774 |
| ***TOTAL*** | **100.00%** | **604** | **42,421** | **6,367,352** |

**Proposed Solutions to Identified Problems:**

Thirty-five 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.

The favorable weather conditions experienced during the first quarter of CY2007 did not continue into the second quarter. Two separate storms during June 2007 resulted in over 150 repair incidents and affected over 6,500 customers. The duration and number of customers affected by these storms approached, but did not reach, the qualifications of a major event for UGI. Therefore, the results **are** included in the data above and consequently negatively impact our reliability indices. Strong winds, lightning strikes, and downed trees (in excess of 85% were off right-of-way trees) on June 8 and June 27 caused severe damage to primary wires and poles and caused three 66 kV line trips and a 66 kV line lock out due to a failed static line. The restoration process for the first storm lasted over 24 hours and over 48 hours for the second.

**SAIFI**
The 12-month rolling SAIFI index increased 13.3% from 0.60 in our last quarterly report to 0.68 for the period ending June 2007.

**SAIDI**
The SAIDI value for the 12 months ending June 2007 is 103. This result is 53.7% higher than results reported through March 2007.

**CAIDI**
The CAIDI result of 150 for the 12-month reporting period ending June 2007 is 33.9% higher than results reported through March 2007.

Despite the severe weather, all indices continue to track below UGI's benchmark level.

**Brian D. Crowe**
Director Retail Rates

PECO Energy Company
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Philadelphia, PA 19103

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PA 19101-8699

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www.exeloncorp.com
brian.crowe@peco-energy.com

PECO
An Exelon Company

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JUL 31 2007
PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

July 31, 2007

**FedEx**

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

DOCUMENT
FOLDER

**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 2007 Quarterly Reliability Report for the period ending June 30, 2007.

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 questions regarding this matter, please call me at 215-841-5316.

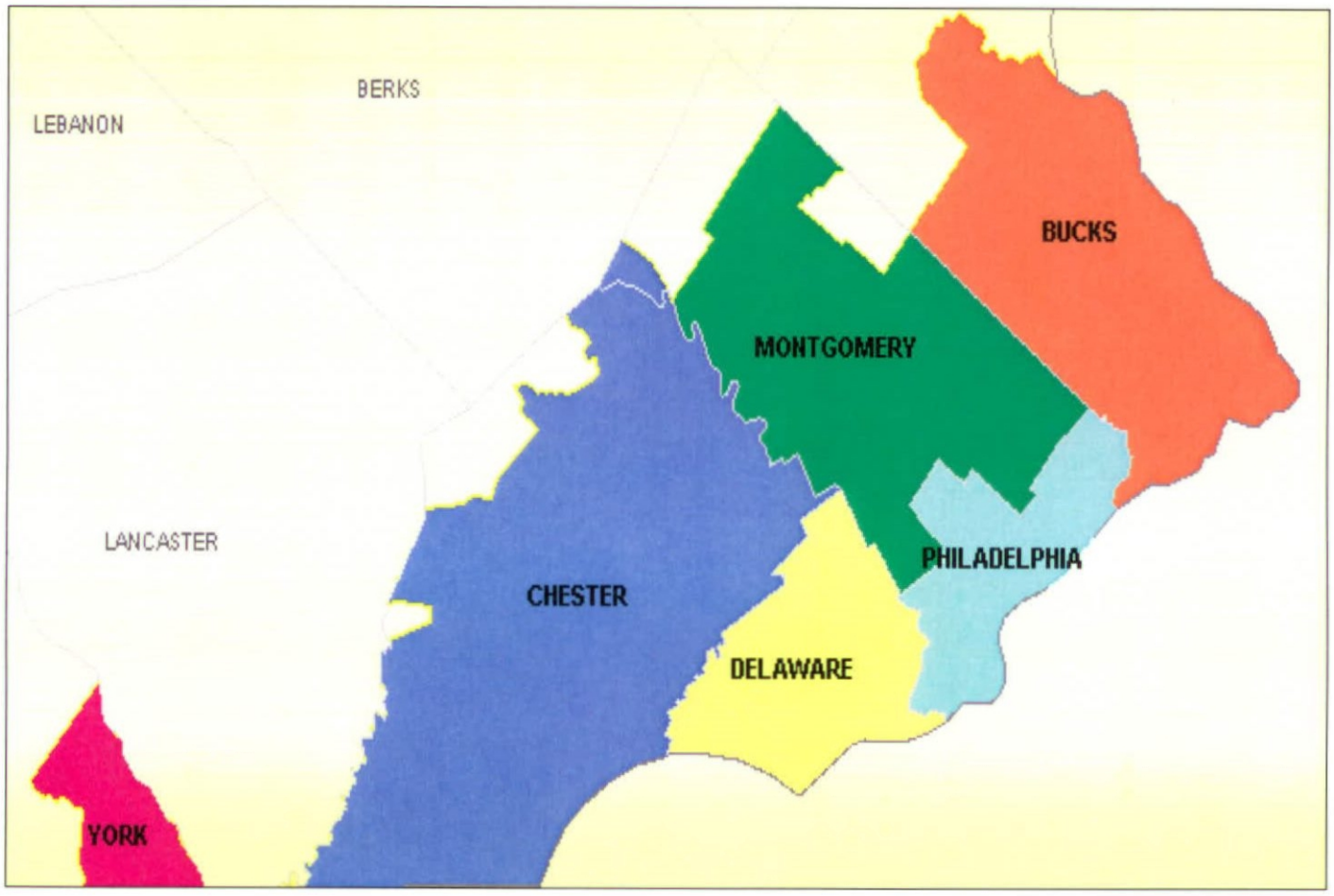
Sincerely,

cc: Office of Consumer Advocate
Office of Small Business Advocate

enclosures

SAN/amm

# PECO Energy Company
# Quarterly Reliability Report
# For Period Ending June 30, 2007




## August 1, 2007

**PECO Energy ("PECO")**

**Quarterly Reliability Report for the Period Ending June 30, 2007 filed with the Pennsylvania Public Utility Commission.**

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

**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."*

PECO experienced no major events during the second quarter of 2007. However, storm activity was high in the second quarter, and included a storm with heavy rain and high winds in April that caused service interruptions to nearly 100,000 PECO customers, primarily due to broken or uprooted trees. While this storm was not considered a major event by Commission definitions, it had a pronounced negative impact on SAIFI, CAIDI and SAIDI.

**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 | Sustained Customer Hours | Momentary Customer Interruptions | Sustained Customer Minutes | SAIFI | CAIDI | SAIDI | MAIFI |
|---|---|---|---|---|---|---|---|---|
| 1,642,022 | 2,064,540 | 4,830,888 | 1,027,837 | 289,853,267 | 1.26 | 140 | 177 | 0.63 |

Data reflects 12 months ending 6/30/2007

| PECO Benchmarks and Rolling 12-Month Standards | | | | |
|---|---|---|---|---|
| | SAIFI | CAIDI | SAIDI | MAIFI |
| 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, primarily due to the extraordinary storm activity in the last half of 2006 and high storm activity in the second quarter of 2007. SAIFI and SAIDI are better than the standards established on May 7, 2004, while the CAIDI value of 140 is above the Standard of 134. No benchmark or standard was established for MAIFI. PECO currently expects all its rolling 12-month reliability index values for SAIFI, CAIDI and SAIDI to improve significantly by the end of the third quarter of this year.

**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 June 30, 2007 | | | | | |
|---|---|---|---|---|---|
| Cause | Cases of Trouble | % Cases of Trouble | Customer* Interruptions | % Customer Interruptions | Customer Minutes |
| Animal | 1,053 | 7.5% | 39,161 | 1.9% | 2,960,964 |
| Contact/Dig-In | 253 | 1.8% | 44,514 | 2.2% | 3,074,972 |
| Equipment Failure | 4,927 | 35.0% | 651,600 | 31.5% | 73,821,852 |
| Lightning | 1,185 | 8.4% | 212,635 | 10.3% | 32,596,402 |
| Other | 1,566 | 11.1% | 197,679 | 9.6% | 22,091,089 |
| T&S | 22 | 0.2% | 63,460 | 3.1% | 5,062,196 |
| Unknown | 294 | 2.1% | 44,892 | 2.2% | 4,635,367 |
| Vegetation-Broken/Uprooted | 2,435 | 17.3% | 549,938 | 26.6% | 107,741,916 |
| Vegetation-Ingrowth | 1,937 | 13.7% | 140,792 | 6.8% | 28,602,012 |
| Vehicles | 422 | 3.0% | 119,869 | 5.8% | 9,266,496 |

*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 tree-related interruptions and equipment failure. 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. (80% of vegetation outages), as opposed to ingrowth (20% of vegetation outages). The high number of vegetation-related interruptions in the last 12 months was primarily due to the extraordinary storm activity during the last half of 2006 and high storm activity in the second quarter of 2007, which caused trees to break or fall into PECO's distribution facilities. PECO has continued with the significant supplemental vegetation management program it began in 2006 to prune or remove trees between cycles of its regularly scheduled vegetation management program.

**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 Preventive Maintenance Program – status as of 6/30/07 | | | | | |
|---|---|---|---|---|---|
| | 2nd Quarter Tasks | | YTD Tasks | | 2007 Total Planned |
| | Planned | Complete | Planned | Complete | |
| **Manhole Inspections** (Number of manholes inspected) | 827 | 385 | 1,362 | 1,049 | 2,480 |
| **Circuit Patrol & Thermography** (Number of circuits inspected) | 193 | 304 | 615 | 829 | 750 |
| **Recloser Inspections** (Number of reclosers inspected) | 0 | 2 | 268 | 337 | 268 |
| **Center City Network Inspections** (Number of maintenance tasks performed (e.g. visual inspection, functional testing) | 200 | 300 | 200 | 302 | 320 |
| **T&S Maintenance** (Number of maintenance tasks performed (e.g. visual inspection, predictive/diagnostic maintenance, preventive maintenance) for a variety of substation components) | 984 | 1,092 | 1,960 | 2,285 | 3,942 |
| **T&S Testing** (Number of maintenance tasks performed (e.g. calibration, trip test) | 270 | 346 | 680 | 818 | 1,097 |
| **Totals** | 2,474 | 2,437 | 5,085 | 5,628 | 8,857 |

| **Vegetation Management Preventive Maintenance Program – status as of 6/30/07** | | | | | |
|---|---|---|---|---|---|
| | 2nd Quarter Miles | | YTD Miles | | 2007 Total Planned |
| | Planned | Complete | Planned | Complete | |
| Distribution Lift and Manual Trimming | 784 | 780 | 1362 | 1363 | 2,963 |
| Transmission Trimming and Removals | 47 | 51 | 95 | 98 | 199 |
| Totals | 831 | 831 | 1,457 | 1,462 | 3,161 |

**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.)*

| $Millions | Budgeted 2nd Quarter | Actual 2nd Quarter | Budgeted Year-to-Date | Actual Year-to-Date |
|---|---|---|---|---|
| New Business Connections | $0.8 M | $0.8 M | $1.7M | $1.8 M |
| Capacity Expansion | $0.3 M | $0.2 M | $0.6 M | $0.5 M |
| System Performance | $5.4 M | $5.5 M | $11.1 M | $8.5 M |
| Facility Relocation | $0.5 M | $0.7 M | $1.0M | $1.2 M |
| Maintenance | $34.1 M | $34.2 M | $68.7 M | $70.7 M |
| Total* | $41.1 M | $41.4 M | $83.1 M | $82.7 M |

See Appendix C for category definitions.
*Total actual does not include $5.0M of incremental Storm Funds for the 2nd quarter. YTD $5.8M

**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.)*

| $Millions | Budgeted 2nd Quarter | Actual 2nd Quarter | Budgeted Year-to-Date | Actual Year-to-Date |
|---|---|---|---|---|
| New Business Connections | $14.6 M | $13.0 M | $29.3 M | $25.3 M |
| Capacity Expansion | $17.2 M | $16.4 M | $49.4 M | $49.3 M |
| System Performance | $8.8 M | $7.7 M | $17.5 M | $12.7 M |
| Facility Relocation | $2.4 M | $1.4 M | $4.3 M | $2.0M |
| Maintenance | $15.2 M | $16.8 M | $28.7 M | $34.9 M |
| Total * | $58.2 M | $55.3 M | $129.2 M | $124.2 M |

See Appendix C for category definitions.
*Total actual does not include $1.3M of incremental Storm Funds for the 2nd quarter. YTD $1.5M

**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 June 30, 2007 was as follows:

| | |
|---|---|
| Aerial Lineman | 382 |
| Underground Lineman | 57 |
| Transmission / Substation Mechanics, Operators | 102 |
| Energy Technicians | 97 |
| Aerial Foreman | 53 |
| Underground Foreman | 18 |
| Transmission / Substation Foreman | 27 |
| Total | 736 |

**Contact Persons:**

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## Appendix A

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

| 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 |
|---|---|---|---|---|---|---|---|---|
| ANGORA_133 | 3,516 | 1.49 | 45 | 67 | 0.68 | 5,239 | 3,944 | 2,403 |
| BALA_141 | 947 | 1.41 | 428 | 604 | 0.00 | 14 | 49 | 0 |
| BELLEVUE_133 | 2,044 | 4.91 | 155 | 762 | 1.43 | 10,029 | 25,959 | 2,931 |
| BRADFORD_344 | 2,472 | 3.34 | 132 | 441 | 1.85 | 8,248 | 18,187 | 4,567 |
| BRADFORD_353 | 2,272 | 3.03 | 237 | 718 | 0.67 | 6,891 | 27,200 | 1,526 |
| BRYN_MAWR_147 | 1,575 | 4.84 | 41 | 200 | 2.77 | 7,629 | 5,255 | 4,362 |
| BUCKINGHAM_353 | 1,352 | 3.78 | 113 | 427 | 1.82 | 5,109 | 9,628 | 2,466 |
| BUCKINGHAM_371 | 1,827 | 5.26 | 77 | 408 | 1.09 | 9,617 | 12,411 | 1,996 |
| BUCKINGHAM_372 | 1,078 | 2.89 | 97 | 280 | 0.19 | 3,113 | 5,032 | 210 |
| BYBERRY_132 | 861 | 3.59 | 67 | 241 | 0.00 | 14 | 49 | 0 |
| BYBERRY_137 | 1,768 | 4.07 | 58 | 237 | 1.42 | 7,203 | 6,993 | 2,505 |
| BYBERRY_141 | 2,101 | 1.09 | 26 | 29 | 0.00 | 14 | 49 | 0 |
| BYBERRY_148 | 2,000 | 2.87 | 146 | 419 | 1.33 | 5,732 | 13,960 | 2,668 |
| BYBERRY_173 | 1,724 | 2.46 | 92 | 227 | 0.00 | 14 | 49 | 0 |
| BYBERRY_174 | 826 | 0.27 | 102 | 28 | 0.06 | 226 | 383 | 49 |
| CEDARBROOK_137 | 1,717 | 3.10 | 73 | 225 | 0.64 | 5,329 | 6,453 | 1,102 |
| CIVIC_010 | 265 | 7.98 | 109 | 868 | 0.00 | 14 | 49 | 0 |
| COCHRANVILLE_341 | 1,831 | 3.86 | 145 | 559 | 2.79 | 7,071 | 17,064 | 5,110 |
| COLWYN_132 | 2,535 | 2.72 | 93 | 253 | 0.90 | 6,905 | 10,695 | 2,293 |
| COLWYN_133 | 3,348 | 2.09 | 130 | 272 | 0.58 | 7,010 | 15,165 | 1,946 |
| CONCORD_011 | 451 | 6.11 | 217 | 1,325 | 4.00 | 2,757 | 9,960 | 1,806 |
| CONCORD_347 | 1,153 | 5.25 | 175 | 918 | 3.33 | 6,054 | 17,646 | 3,837 |
| CONCORD_348 | 1,321 | 1.95 | 124 | 241 | 0.38 | 2,575 | 5,315 | 506 |
| CONCORD_351 | 1,836 | 1.60 | 139 | 222 | 3.91 | 2,939 | 6,802 | 7,171 |
| CREEK_000 | 399 | 2.34 | 226 | 527 | 1.00 | 247 | 707 | 163 |
| DALEVILLE_341 | 1,008 | 3.72 | 71 | 264 | 0.01 | 3,752 | 4,432 | 15 |
| DELTA_002 | 664 | 3.10 | 86 | 266 | 0.00 | 14 | 49 | 0 |
| EAGLE_352 | 1,516 | 4.09 | 117 | 480 | 4.38 | 6,196 | 12,121 | 6,637 |
| EDGMONT_133 | 2,306 | 3.80 | 120 | 456 | 2.92 | 8,768 | 17,519 | 6,741 |
| FALLS_351 | 1,951 | 2.78 | 90 | 249 | 0.77 | 5,425 | 8,109 | 1,503 |
| FOULK_143 | 1,255 | 3.10 | 100 | 311 | 0.34 | 3,890 | 6,506 | 421 |
| GLADWYNE_133 | 793 | 0.07 | 69 | 5 | 0.00 | 14 | 49 | 0 |
| GOSHEN_351 | 1,048 | 1.91 | 184 | 352 | 1.00 | 247 | 707 | 163 |
| HARTSVILLE_003 | 700 | 1.06 | 71 | 76 | 4.00 | 743 | 885 | 2,798 |
| HEARTWOOD_008 | 611 | 5.16 | 178 | 917 | 2.00 | 111 | 714 | 688 |
| HEATON_136 | 1,572 | 4.20 | 135 | 566 | 0.00 | 14 | 49 | 0 |
| HEATON_167 | 751 | 3.99 | 105 | 418 | 1.20 | 2,995 | 5,238 | 899 |
| HEATON_169 | 1,514 | 1.57 | 81 | 127 | 0.00 | 14 | 49 | 0 |
| JARRETT_142 | 1,094 | 5.71 | 113 | 648 | 0.44 | 6,246 | 11,808 | 486 |
| JENKINTOWN_133 | 1,589 | 0.02 | 118 | 3 | 0.00 | 14 | 49 | 0 |
| JENKINTOWN_144 | 1,891 | 5.57 | 155 | 861 | 0.54 | 10,530 | 27,148 | 1,023 |
| JENNERSVILLE_341 | 2,340 | 3.56 | 93 | 331 | 4.22 | 8,333 | 12,905 | 9,870 |
| LENAPE_342 | 1,820 | 0.97 | 315 | 307 | 1.74 | 1,774 | 9,322 | 3,162 |
| LENAPE_343 | 2,225 | 4.69 | 205 | 962 | 1.81 | 10,438 | 35,691 | 4,037 |
| LENAPE_351 | 1,443 | 4.83 | 213 | 1,030 | 2.36 | 6,974 | 24,783 | 3,401 |
| LINE_1100CL | 1,317 | 2.25 | 503 | 1,131 | 0.17 | 2,964 | 24,832 | 218 |
| LINE_127_00LL | 6 | 0.00 | 0 | 0 | 1.00 | 0 | 0 | 0 |
| LINE_1300CR | 1,863 | 5.89 | 81 | 480 | 0.65 | 10,968 | 14,889 | 1,218 |
| LINE_132_00WO | 591 | 4.57 | 154 | 703 | 0.20 | 2,698 | 6,925 | 117 |
| LINE_141_00CL | 1,818 | 4.07 | 118 | 480 | 2.38 | 7,405 | 14,553 | 4,335 |
| LINE_149_00 | 634 | 1.21 | 82 | 100 | 2.00 | 770 | 1,053 | 1,270 |
| LINE_183_00 | 874 | 2.98 | 92 | 275 | 0.00 | 14 | 49 | 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 |
|---|---|---|---|---|---|---|---|---|
| LINE_2100CR | 977 | 1.02 | 187 | 191 | 0.39 | 998 | 2,055 | 415 |
| LINE_2235 | 2,087 | 0.13 | 61 | 8 | 0.00 | 14 | 49 | 0 |
| LINE_3307NT | 1,875 | 3.25 | 64 | 207 | 0.00 | 14 | 49 | 0 |
| LINE_3326 | 1 | 1.00 | 6 | 6 | 0.00 | 14 | 49 | 0 |
| LINE_3344 | 619 | 3.13 | 136 | 424 | 1.00 | 247 | 707 | 163 |
| LINE_4100PB | 1,503 | 2.57 | 72 | 185 | 1.16 | 3,869 | 4,644 | 1,747 |
| LINE_5100PB | 608 | 2.68 | 141 | 377 | 0.54 | 1,627 | 3,815 | 330 |
| LINE_5800 | 437 | 0.08 | 214 | 18 | 0.00 | 36 | 6 | 0 |
| LINE_7800BA | 4 | 1.00 | 6 | 6 | 0.00 | 14 | 49 | 0 |
| LINE_800CR | 1,798 | 1.70 | 170 | 287 | 1.28 | 3,048 | 8,614 | 2,309 |
| LINE_9400CR | 586 | 1.90 | 192 | 365 | 0.01 | 1,116 | 3,564 | 7 |
| LINTON_351 | 2,508 | 4.11 | 130 | 533 | 2.20 | 10,301 | 22,296 | 5,514 |
| LLANERCH_142 | 1,368 | 3.65 | 93 | 338 | 0.08 | 4,994 | 7,712 | 107 |
| LLANERCH_144 | 1,831 | 3.86 | 145 | 559 | 2.79 | 7,071 | 17,064 | 5,110 |
| MATTHEWS_000 | 646 | 2.44 | 136 | 333 | 0.00 | 14 | 49 | 0 |
| MIDDLETOWN_132 | 1,583 | 4.42 | 197 | 869 | 4.44 | 6,995 | 22,927 | 7,028 |
| MIDDLETOWN_133 | 1,621 | 3.57 | 189 | 674 | 1.00 | 5,783 | 13,355 | 6,300 |
| MIDDLETOWN_142 | 1,501 | 3.51 | 198 | 696 | 0.73 | 5,266 | 17,418 | 1,094 |
| MIDDLETOWN_352 | 2,296 | 3.38 | 176 | 594 | 0.76 | 7,766 | 22,716 | 1,738 |
| MORTON_141 | 1,611 | 3.38 | 75 | 254 | 1.48 | 5,443 | 6,812 | 2,383 |
| NESHAMINY_134 | 743 | 4.55 | 87 | 395 | 0.99 | 3,383 | 4,894 | 733 |
| NESHAMINY_141 | 1,225 | 0.26 | 243 | 64 | 0.36 | 321 | 301 | 0 |
| NEWLINVILLE_341 | 2,093 | 1.34 | 171 | 230 | 1.74 | 2,812 | 8,019 | 3,644 |
| NEWLINVILLE_344 | 3,042 | 3.14 | 184 | 577 | 0.36 | 9,561 | 29,261 | 1,100 |
| NEWLINVILLE_352 | 2,329 | 2.75 | 261 | 718 | 2.49 | 6,410 | 27,870 | 5,802 |
| NEWLINVILLE_353 | 2,203 | 0.02 | 324 | 6 | 0.00 | 14 | 49 | 0 |
| NEWLINVILLE_354 | 2,654 | 7.47 | 192 | 1,437 | 4.20 | 19,832 | 63,581 | 11,138 |
| NEWTOWN_SQUAR_131 | 1,297 | 7.81 | 162 | 1,266 | 0.68 | 10,127 | 27,361 | 880 |
| NEWTOWN_SQUAR_146 | 1,453 | 4.03 | 217 | 875 | 2.41 | 5,857 | 21,197 | 3,495 |
| NORTH_WALES_343 | 2,752 | 0.02 | 118 | 2 | 0.00 | 14 | 49 | 0 |
| NORTH_WALES_347 | 1,235 | 2.11 | 62 | 132 | 0.13 | 2,609 | 2,708 | 156 |
| NORTH_WALES_353 | 2,401 | 1.15 | 141 | 162 | 0.35 | 2,756 | 6,474 | 848 |
| OLIVE_001 | 966 | 5.05 | 221 | 1,117 | 0.99 | 4,878 | 17,987 | 960 |
| PARRISH_133 | 3,699 | 1.89 | 35 | 66 | 0.93 | 6,998 | 4,050 | 3,435 |
| PARRISH_138 | 3,256 | 1.13 | 99 | 111 | 0.02 | 3,665 | 6,018 | 66 |
| PERKIOMEN_341 | 1,176 | 0.96 | 392 | 378 | 0.13 | 1,134 | 2,672 | 1,986 |
| PERKIOMEN_361 | 2,061 | 0.94 | 164 | 154 | 0.00 | 14 | 49 | 0 |
| PERKIOMEN_363 | 1,973 | 1.07 | 53 | 57 | 0.97 | 2,113 | 1,862 | 1,910 |
| PHOENIXVILLE_002 | 1,090 | 1.01 | 45 | 45 | 0.00 | 14 | 49 | 0 |
| PICKERING_002 | 737 | 9.40 | 86 | 812 | 2.96 | 6,927 | 9,970 | 2,184 |
| PLYMOUTH_134 | 1,813 | 0.62 | 65 | 41 | 0.45 | 1,127 | 1,229 | 821 |
| PLYMOUTH_141 | 1,160 | 1.03 | 21 | 22 | 1.96 | 1,191 | 427 | 2,279 |
| PLYMOUTH_160 | 751 | 3.99 | 105 | 418 | 1.20 | 2,995 | 5,238 | 899 |
| PULASKI_136 | 4,032 | 1.80 | 100 | 180 | 0.80 | 7,264 | 12,090 | 3,240 |
| RICHMOND_131 | 358 | 4.08 | 40 | 164 | 1.00 | 247 | 707 | 163 |
| SILES_135 | 1,367 | 9.81 | 163 | 1,595 | 0.54 | 13,405 | 36,348 | 741 |
| STREET_000 | 389 | 4.66 | 98 | 456 | 6.94 | 1,812 | 2,958 | 2,701 |
| TABOR_139 | 1,888 | 2.62 | 156 | 409 | 0.00 | 14 | 49 | 0 |
| TREDYFFRIN_141 | 1,054 | 4.45 | 223 | 993 | 0.86 | 4,690 | 17,441 | 909 |
| TREVOSE_136 | 1,354 | 5.57 | 89 | 495 | 0.99 | 7,546 | 11,179 | 1,344 |
| UPPER_MERION_141 | 806 | 3.16 | 159 | 501 | 0.49 | 2,546 | 6,731 | 393 |
| UWCHLAN_004 | 591 | 4.57 | 154 | 703 | 0.20 | 2,698 | 6,925 | 117 |

| 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 |
|---|---|---|---|---|---|---|---|---|
| WAGONTOWN_000 | 596 | 0.20 | 335 | 66 | 0.00 | 14 | 49 | 0 |
| WARMINSTER_142 | 1,551 | 3.06 | 223 | 683 | 1.05 | 4,751 | 17,651 | 1,622 |
| WAYNE_132 | 1,009 | 0.00 | 67 | 0 | 0.00 | 14 | 49 | 0 |
| WEST_GROVE_001 | 831 | 0.40 | 270 | 109 | 0.00 | 14 | 49 | 0 |
| WEST_OAK_LANE_012 | 533 | 0.58 | 211 | 122 | 0.00 | 14 | 49 | 0 |
| WHITEMARSH_131 | 1,189 | 0.06 | 140 | 8 | 0.00 | 14 | 49 | 0 |
| WHITEMARSH_141 | 1,141 | 1.86 | 147 | 274 | 1.60 | 2,122 | 5,215 | 1,830 |
| WOODBOURNE_343 | 1,717 | 3.10 | 73 | 225 | 0.64 | 5,329 | 6,453 | 1,102 |

*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 6/30/07

***ANGORA-133***
*Philadelphia*
**Completed:**
Inspected circuit visually and with thermographic camera
Installed additional fusing.
Completed reliability corrective work orders.
Remedial efforts complete.
**Planned:**
Remedial efforts complete.

***BALA-141***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Replaced primary wire
Installed additional fusing.
Performed regularly scheduled tree clearance
Completed reliability corrective work orders
Install additional fusing
**Planned**:
Remedial efforts complete.

***BELLEVUE-133***
*Bucks County*
***Completed:***
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Tested and adjusted or repaired recloser
Inspect selected areas of circuit for vegetation issues and correct as needed
Perform regularly scheduled tree clearance
***Planned:***
Complete reliability corrective work orders
Upgrade cable insulation
Install three-phase reclosers
Install three-phase reclosers on supply line

***BRADFORD-344***
*Chester County*
***Completed:***
Inspected selected areas of circuit for vegetation issues and corrected as needed
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Replaced reclosers
Inspect selected areas of circuit for vegetation issues and correct as needed
***Planned:***
Complete reliability corrective work orders

***BRADFORD-353***
*Chester County*
***Completed:***
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Tested and adjusted or repaired recloser
Inspect selected areas of circuit for vegetation issues and correct as needed
***Planned:***
Install single-phase recloser

***BRYN MAWR-147***
*Delaware County*
***Completed:***
Inspected circuit visually and with thermographic camera
Tested and adjusted or repaired recloser
Installed single-phase reclosers
Inspect selected areas of circuit for vegetation issues and correct as needed
***Planned:***
Complete reliability corrective work orders
Upgrade wildlife protection

***BUCKINGHAM-353***
*Bucks County*
***Completed:***
Inspected selected areas of circuit for vegetation issues and corrected as needed
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Tested and adjusted or repaired recloser
Replaced reclosers
***Planned:***
Complete reliability corrective work orders
Upgrade lightning protection

***BUCKINGHAM-371***
*Bucks County*
***Completed:***
Inspected selected areas of circuit for vegetation issues and corrected as needed
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Repaired switch
***Planned:***
Complete reliability corrective work orders

***BUCKINGHAM-372***
*Bucks County*
***Completed:***
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Installed three-phase recloser
Tested and adjusted or repaired recloser
Completed reliability corrective work orders
***Planned:***
Complete reliability corrective work orders

***BYBERRY-132***
*Philadelphia*
**Completed:**
Inspected circuit visually and with thermographic camera
***Planned:***
Inspect selected areas of circuit for vegetation issues and corrected as needed.

***BYBERRY-137***
*Philadelphia*
**Completed:**
Work to be completed per plan
***Planned:***
Complete reliability corrective work orders
Upgrade lightning protection
Install additional fusing
Inspect selected areas of circuit for vegetation issues and corrected as needed.

***BYBERRY-141***
*Philadelphia*
**Completed:**
Installed wildlife protection
Completed reliability corrective work orders
Inspected circuit visually and with thermographic camera
Inspect selected areas of circuit for vegetation issues and correct as needed
Installed three-phase recloser
**Planned:**
Remedial efforts complete.

***BYBERRY-148***
*Philadelphia*
**Completed**:
Inspected selected areas of circuit for vegetation issues and corrected as needed
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Installed three-phase recloser
Added remote control to reclosers
Replaced aerial wire
**Planned:**
Complete reliability corrective work orders
Upgrade wildlife protection

***BYBERRY-173***
*Philadelphia*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Completed reliability corrective work orders
**Planned:**
Upgrade fusing
Upgrade lightning protection
Complete reliability corrective work orders

***BYBERRY-174***
*Philadelphia*
**Completed**:
Inspected selected areas of circuit for vegetation issues and corrected as needed
Inspected circuit visually and with thermographic camera
Installed additional fusing.
Completed reliability corrective work orders.
Inspected selected areas of circuit for vegetation issues and correct as needed
**Planned:**
Remedial efforts complete.

***CEDARBROOK 137***
*Philadelphia*
**Completed:**
Inspected circuit visually and with thermographic camera
Performed regularly scheduled tree clearance
**Planned**:
Complete reliability corrective work orders
Upgrade fusing
Inspect selected areas of circuit for vegetation issues and correct as needed

***CIVIC-10***
*Philadelphia*
**Completed**:
Inspected circuit visually and with thermographic camera
Installed three-phase vacuum interrupter
Install three-phase vacuum interrupter
**Planned:**
Remedial efforts complete.

***COCHRANVILLE-341***
*Chester County*
***Completed:***
Inspected selected areas of circuit for vegetation issues and corrected as needed
Inspected circuit visually and with thermographic camera
Installed three-phase recloser
Installed single-phase recloser
Tested and adjusted or repaired recloser
Upgraded transformer
Completed reliability corrective work orders.
***Planned:***
Perform regularly scheduled tree clearance
Install three-phase recloser
Complete reliability corrective work orders

***COLWYN-132***
*Delaware County*
**Completed:**
Inspected selected areas of circuit for vegetation issues and corrected as needed
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders.
Upgraded wildlife protection
**Planned:**
Complete reliability corrective work orders.
Perform regularly scheduled tree clearance

***COLWYN-133***
*Delaware County*
**Completed:**
Inspected selected areas of circuit for vegetation issues and corrected as needed.
Inspected circuit visually and with thermographic camera
Performed regularly scheduled tree clearance
**Planned:**
Upgrade fusing
Complete reliability corrective work orders

***CONCORD-011***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Installed additional fusing.
Completed reliability corrective work orders.
Performed regularly scheduled tree clearance
**Planned:**
Remedial efforts complete.

***CONCORD-347***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders.
Tested and adjusted or repaired recloser
Performed regularly scheduled tree clearance
**Planned:**
Upgrade wildlife protection
Install single-phase reclosers
Install electronic sectionalizers

***CONCORD-348***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Upgraded lightning protection
Tested and adjusted or repaired recloser
Completed reliability corrective work orders.
**Planned:**
Remedial efforts complete.

***CONCORD-351***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Replaced underground cable
Tested and adjusted recloser operation
Completed reliability corrective work orders.
**Planned:**
Remedial efforts complete.

***CREEK-000***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Installed additional fusing.
Performed regularly scheduled tree clearance
**Planned:**
Remedial efforts complete.

***DALEVILLE-341***
*Chester County*
**Completed:**
Inspected selected areas of circuit for vegetation issues and corrected as needed
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders.
Upgraded lightning protection
Circuit reconfiguration with reclosers added to Daleville 341
Perform regularly scheduled tree clearance
**Planned:**
Complete reliability corrective work orders.

***DELTA-002***
*York County*
**Completed:**
Inspected circuit visually and with thermographic camera
**Planned:**
Inspected circuit visually and with thermographic camera
Complete reliability corrective work orders.
Install three-phase recloser

***EAGLE-352***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Installed three-phase recloser
Performed regularly scheduled tree clearance
Completed reliability corrective work orders.
**Planned:**
Remedial efforts complete.

***EDGEMONT-133***
*Delaware County*
***Completed:***
Work to be done per planned
***Planned:***
Circuit under analysis
Perform regularly scheduled tree clearance

***FALLS-351***
*Bucks County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Tested and adjusted or repaired recloser
**Planned:**
Upgrade lightning protection
Perform regularly scheduled tree clearance

***FOULK-143***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders.
Inspected selected areas of circuit for vegetation issues and correct as needed
Performed regularly scheduled tree clearance
Installed three-phase reclosers
**Planned:**
Remedial efforts complete.

***GLADWYNE – 133***
*Delaware County*
***Completed:***
Inspected circuit visually and with thermographic camera
Replaced three-phase recloser
Completed reliability corrective work orders
Tested and adjusted or repaired recloser
***Planned:***
Inspect selected areas of circuit for vegetation issues and correct as needed
Complete reliability corrective work orders
Install single-phase reclosers
Upgrade lightning protection

Upgrade wildlife protection

***GOSHEN-351***

*Chester County*

**Completed:**

Inspected circuit visually and with thermographic camera
Replaced reclosers
Upgraded lightning protection
Tested and adjusted or repaired recloser
Completed reliability corrective work orders

**Planned**:

Remedial efforts complete.

***HARTSVILLE-003***

*Bucks County*

**Completed:**

Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders

**Planned**:

Upgrade switches
Complete reliability corrective work orders.

***HEARTWOOD – 008***

*Bucks County*

***Completed:***

Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders

***Planned:***

Inspect selected areas of circuit for vegetation issues and correct as needed
Complete reliability corrective work orders.

***HEATON-136***

*Montgomery County*

***Completed:***

Inspected circuit visually and with thermographic camera
Performed regularly scheduled tree clearance

***Planned:***

Complete reliability corrective work orders
Inspect selected areas of circuit for vegetation issues and correct as needed
Upgrade wildlife protection
Install three-phase recloser

***HEATON-167***

*Montgomery County*

**Completed**:

Inspected circuit visually and with thermographic camera
Installed three-phase recloser
Installed single-phase recloser
Completed reliability corrective work orders
Performed regularly scheduled tree clearance

**Planned**:

Remedial efforts complete.

***HEATON-169***

*Montgomery County*

***Completed:***

Work to be done per plan

***Planned:***

Completed reliability corrective work-orders
Upgrade transformer
Inspect selected areas of circuit for vegetation issues and correct as needed

***JARRETT-142***
*Montgomery County*
**Completed:**
Inspected circuit visually and with thermographic camera
Performed regularly scheduled tree clearance
Upgraded lightning protection
Upgraded wildlife protection
Installed three phase recloser
**Planned:**
Perform regularly scheduled tree clearance
Complete reliability corrective work orders

***JENKINTOWN-133***
*Montgomery County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Performed regularly scheduled tree clearance
Upgraded wildlife protection
**Planned:**
Upgrade lightning protection
Upgrade wildlife protection
Complete reliability corrective work orders

***JENKINTOWN-144***
*Montgomery County*
**Completed**:
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Upgraded lightning protection
Relocated three-phase recloser
Completed reliability corrective work orders.
Performed regularly scheduled tree clearance
**Planned:**
Complete reliability corrective work orders.

***JENNERSVILLE-341***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Upgraded fusing
Rearranged circuit for better automatic transfer
Completed reliability corrective work orders.
Tested and adjusted or repaired recloser
Performed regularly scheduled tree clearance
**Planned:**
Remedial efforts complete.

***LENAPE-342***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Upgraded lightning protection
Tested and adjusted or repaired recloser
Repaired recloser control
Performed regularly scheduled tree clearance
Upgrade fusing
**Planned:**
Complete reliability corrective work orders.

***LENAPE-343***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Tested and adjusted or repaired recloser
Completed reliability corrective work orders
Performed regularly scheduled tree clearance
Install single-phase recloser
Install three-phase recloser
**Planned:**
Complete reliability corrective work orders

***LENAPE-351***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Replaced three-phase recloser
Completed reliability corrective work orders
Performed regularly scheduled tree clearance
Installed single-phase recloser
Completed reliability corrective work orders
**Planned:**
Inspect selected areas of circuit for vegetation issues and corrected as needed

***LINE-127-OOLL***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
**Planned:**
Inspect selected areas of circuit for vegetation issues and correct as needed
Complete reliability corrective work orders

***LINE-132-OOWO***
*Bucks County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Replaced switches
Installed reclosers on downstream circuit
Completed reliability corrective work orders
Installed faulted circuit indicators
Completed reliability corrective work orders
**Planned:**
Install reclosers
Complete reliability corrective work orders
Perform regularly scheduled tree clearance

***LINE-141-OOCL***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Tested and adjusted or repaired recloser
Install three-phase recloser
Complete reliability corrective work orders
**Planned:**
Perform regularly scheduled tree clearance

***LINE-149-00***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
**Planned:**
Install three-phase recloser
Complete reliability corrective work orders

***LINE-183-00***
*Bucks County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders.
**Planned:**
Complete reliability corrective work orders.
Perform regularly scheduled tree clearance

***LINE-800-CR***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Replaced three-phase reclosers
Tested and adjusted or repaired recloser
**Planned:**
Complete reliability corrective work orders.

***LINE-1100-CL***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Upgraded fusing
Upgrade wildlife protection
**Planned:**
Install three-phase reclosers
Install single-phase recloser
Inspect selected areas of circuit for vegetation issues and correct as needed

***LINE-1300-CR***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Performed regularly scheduled tree clearance
Extend primary conductors to close loop
**Planned:**
Complete reliability corrective work orders

***LINE-2100-CR***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Replaced three-phase recloser
Repaired switches
Completed reliability corrective work orders
Performed regularly scheduled tree clearance
**Planned:**
Complete reliability corrective work orders

***LINE-2235***
*Philadelphia*
**Completed:**
Inspected circuit visually and with thermographic camera
Upgraded wildlife protection
Completed reliability corrective work orders.
Performed regularly scheduled tree clearance
**Planned:**
Remedial efforts complete.

***LINE-3326***
*Delaware County*
***Completed***
Work to be completed per plan
***Planned***
Circuit under analysis

***LINE-3307-NT***
*Chester County*
**Completed:**
Performed regularly scheduled tree clearance
Inspected circuit visually and with thermographic camera
Tested and adjusted or repaired recloser
**Planned:**
Install three-phase recloser
Complete reliability corrective work orders.

***LINE-3344***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders.
Performed regularly scheduled tree clearance
**Planned:**
Inspect selected areas of circuit for vegetation issues and correct as needed
Complete reliability corrective work orders.
Upgrade lightning protection

***LINE- 4100PB***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Transferred customers to newly installed circuits.
Replaced recloser control.
Replaced switch
Completed reliability corrective work orders.
**Planned:**
Remedial efforts complete.

***LINE-5100PB***
*Chester County*
***Completed:***
Inspected circuit visually and with thermographic camera
Tested and adjusted or repaired recloser
***Planned:***
Complete reliability corrective work orders.

***LINE-5800***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Installed three-phase recloser
Completed reliability corrective work orders
Performed regularly scheduled tree clearance
**Planned:**
Remedial efforts complete.

***LINE-7800BA***
*Montgomery County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Perform regularly scheduled tree clearance
Repair switch
**Planned:**
Install three-phase reclosers
Complete reliability corrective work orders

***LINE-9400CR***
*Chester County*
**Completed**:
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Upgraded lightning protection
Tested and adjusted or repaired recloser
Installed underground cable
Performed regularly scheduled tree clearance
Completed reliability corrective work orders.
**Planned:**
Remedial efforts complete.

***LINTON-351***
*Bucks County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Tested and adjusted or repaired recloser
**Planned:**
Complete reliability corrective work orders
Perform regularly scheduled tree clearance

***LLANERCH-142***
*Delaware County*
***Completed:***
Inspect selected areas of circuit for vegetation issues and correct as needed
***Planned:***
Inspect circuit visually and with thermographic camera
Complete reliability corrective work orders
Upgrade fusing

***LLANERCH-144***
*Delaware County*
***Completed:***
Inspected selected areas of circuit for vegetation issues and corrected as needed
Inspected circuit visually and with thermographic camera
***Planned:***
Upgraded fuses
Completed reliability corrective work orders
Inspected selected areas of circuit for vegetation issues and corrected as needed

***MATTHEWS-000***
*Chester County*
**Completed:**
Installed single-phase recloser
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Completed reliability corrective work orders
**Planned:**
Remedial efforts complete.

***MIDDLETOWN-132***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Tested and adjusted or repaired recloser
**Planned:**
Inspect selected areas of circuit for vegetation issues and correct as needed
Complete reliability corrective work orders

***MIDDLETOWN-133***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Tested and adjusted or repaired recloser
**Planned:**
Inspect selected areas of circuit for vegetation issues and correct as needed
Complete reliability corrective work orders.
Install three-phase reclosers
Replace aerial wire

***MIDDLETOWN-142***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
**Planned:**
Inspect selected areas of circuit for vegetation issues and correct as needed
Install three-phase recloser
Install single-phase recloser
Install electronic sectionalizer
Complete reliability corrective work orders.

***MIDDLETOWN-352***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Repaired three phase reclosers.
Tested and adjusted or repaired recloser
Completed reliability corrective work orders.
**Planned:**
Inspect selected areas of circuit for vegetation issues and correct as needed
Complete reliability corrective work orders

***MORTON-141***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Completed reliability corrective work orders
Performed regularly scheduled tree clearance
**Planned:**
Complete reliability corrective work orders
Upgrade wildlife protection
Upgrade fuse
Upgrade transformer

***NESHAMINY-134***
*Bucks County*
**Completed:**
Work to be completed per plan
**Planned:**
Circuit under analysis

***NESHAMINY-141***
*Bucks County*
**Completed:**
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 work orders.
Perform regularly scheduled tree clearance
**Planned:**
Remedial efforts completed

***NEWLINVILLE-341***
*Chester County*
**Completed**:
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Tested and adjusted recloser operation
Completed reliability corrective work orders
**Planned**:
Inspect selected areas of circuit for vegetation issues and correct as needed

***NEWLINVILLE-344***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Installed single-phase recloser
Tested and adjusted or repaired recloser
Completed reliability corrective work orders
**Planned:**
Install three-phase reclosers

***NEWLINVILLE-352***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Replaced recloser
Tested and adjusted or repaired recloser
Shifted customers to new circuit, reducing exposure to outages
Completed reliability corrective work orders
**Planned**:
Repair recloser control
Complete reliability corrective work orders

***NEWLINVILLE-353***
*Chester County*
***Completed:***
Inspected selected areas of circuit for vegetation issues and corrected as needed
Inspected circuit visually and with thermographic camera
Repaired switch
***Planned:***
Complete reliability corrective work orders
Upgrade lightning protection

***NEWLINVILLE-354***
*Chester County*
***Completed:***
Inspected selected areas of circuit for vegetation issues and corrected as needed
Inspected circuit visually and with thermographic camera
***Planned:***
Complete reliability corrective work orders

***NEWTOWN-SQUARE-131***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Completed reliability corrective work orders
**Planned:**
Install three-phase recloser
Upgrade lightning protection
Upgrade fusing
Complete reliability corrective work orders
Inspect selected areas of circuit for vegetation issues and corrected as needed

***NEWTOWN-SQUARE-146***
*Delaware County*
**Completed:**
Inspected selected areas of circuit for vegetation issues and corrected as needed
Inspected circuit visually and with thermographic camera
Installed wildlife protection
Tested and adjusted or repaired recloser
Completed reliability corrective work orders
**Planned**:
Remedial efforts complete.

***NORTH WALES-343***
*Montgomery County*
***Completed:***
Inspected circuit visually and with thermographic camera
Inspected / tested recloser operation
Completed reliability corrective work orders
Repaired switch
***Planned:***
Complete reliability corrective work orders

***NORTH WALES-347***
*Montgomery County*
***Completed:***
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Tested and adjusted or repaired recloser
***Planned:***
Complete reliability corrective work orders

***NORTH WALES-353***
*Montgomery County*
***Completed:***
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Replaced recloser
Upgraded lightning protection
Installed switch
Completed reliability corrective work orders
***Planned:***
Remedial efforts completed

***OLIVE 001***
*Chester County*
***Completed:***
Inspected circuit visually and with thermographic camera
Made reliability improvements to supply circuit
Upgraded transformers
Completed reliability corrective work orders
***Planned:***
Inspect selected areas of circuit for vegetation issues and correct as needed
Complete reliability corrective work orders

***PARRISH-133***
*Philadelphia*
***Completed:***
Inspected circuit visually and with thermographic camera
***Planned:***
Upgrade fuses
Complete reliability corrective work orders

***PARRISH-138***
*Philadelphia*
**Completed:**
Completed reliability corrective work orders
Tested and adjusted or repaired recloser
**Planned:**
Upgrade fusing

***PERKIOMEN-341***
*Montgomery County*
**Completed**
Inspected circuit visually and with thermographic camera
Tested and adjusted or repaired recloser
Completed reliability corrective work orders.
**Planned:**
Remedial efforts complete.

***PERKIOMEN-361***
*Montgomery County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Completed reliability corrective work orders
Tested and adjusted or repaired recloser
Replaced recloser
**Planned:**
Upgrade switches
Perform regularly scheduled recloser maintenance

***PERKIOMEN-363***
*Montgomery County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
**Planned:**
Remedial efforts complete.

***PHOENIXVILLE-002***
*Chester County*
**Completed**:
Inspected circuit visually and with thermographic camera
Performed regularly scheduled tree clearance
Upgraded fusing
Upgraded lightning protection
Upgraded switches
**Planned**:
Complete reliability corrective work orders.

***PICKERING-002***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Replaced switches
Completed reliability corrective work orders.
Renewed circuit supply cable
Upgrade fusing
Inspect selected areas of circuit for vegetation issues and correct as needed
**Planned:**
Complete reliability corrective work orders

***PLYMOUTH-134***
*Montgomery County*
***Completed:***
Inspected circuit visually and with thermographic camera
Performed regularly scheduled tree clearance
Inspect selected areas of circuit for vegetation issues and correct as needed
Installed three-phase recloser
Completed reliability corrective work orders
***Planned:***
Complete reliability corrective work orders
Inspect selected areas of circuit for vegetation issues and correct as needed

***PLYMOUTH-141***
*Montgomery County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders.
Performed regularly scheduled tree clearance
Install single-phase recloser
**Planned:**
Remedial efforts complete
Upgrade aerial wire

***PLYMOUTH-160***
*Montgomery County*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Installed three-phase recloser
Completed reliability corrective work orders.
Inspect selected areas of circuit for vegetation issues and correct as needed
**Planned**:
Remedial efforts complete

***PULASKI-136***
*Philadelphia*
**Completed:**
Inspected circuit visually and with thermographic camera
Inspected selected areas of circuit for vegetation issues and corrected as needed
Upgraded fusing
Tested and adjusted or repaired recloser
Upgraded lightning protection
Completed reliability corrective work orders.
Performed regularly scheduled tree clearance
**Planned**:
Remedial efforts complete

***RICHMOND-131***
*Philadelphia*
**Completed**:
Inspected circuit visually and with thermographic camera
Installed three-phase reclosers.
Completed reliability corrective work orders.
**Planned**:
Remedial efforts complete.

***SILES-135***
*Bucks County*
**Completed**:
Inspected selected areas of circuit for vegetation issues and corrected as needed
Inspected circuit visually and with thermographic camera
Upgraded wildlife protection
Tested and adjusted recloser operation
Upgraded lightning protection
Completed reliability corrective work orders.
Perform regularly scheduled tree clearance
**Planned**:
Remedial Efforts completed

***STREET-000***
*Bucks County*
***Completed:***
Inspected circuit visually and with thermographic camera
Performed regularly scheduled tree clearance
***Planned:***
Complete reliability corrective work orders.

***TABOR-139***
*Philadelphia*
**Completed:**
Inspected circuit visually and with thermographic camera
Performed regularly scheduled tree clearance
Upgraded wildlife protection
Completed reliability corrective work orders.
Inspect select areas of circuit for vegetation issues and corrected as needed
**Planned:**
Remedial efforts complete

***TREDYFFRIN-141***
*Chester County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders.
Performed regularly scheduled tree clearance
Tested and adjusted or repaired recloser
Inspected select areas of circuit for vegetation issues and corrected as needed
Upgraded lightning protection
Upgraded fusing
**Planned:**
Complete reliability corrective work orders.

***TREVOSE 136***
*Bucks County*
***Completed:***
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Tested and adjusted or repaired recloser
Inspected select areas of circuit for vegetation issues and correct as needed
***Planned:***
Complete reliability corrective work orders

***UPPER MERION-141***
*Chester County*
***Completed:***
Inspected circuit visually and with thermographic camera
Upgraded wildlife protection
Completed reliability corrective work orders
***Planned:***
Inspect select areas of circuit for vegetation issues and corrected as needed
Upgrade fusing
Install three-phase recloser
Install single-phase recloser
Complete reliability corrective work orders

***UWCHLAN-004***
*Chester County*
***Completed:***
Inspected circuit visually and with thermographic camera
***Planned:***
Circuit under analysis

***WAGONTOWN-000***
*Chester County*
**Completed:**
Inspected selected areas of circuit for vegetation issues and corrected as needed
Completed reliability corrective work orders
Remediated supply circuit
**Planned**:
Remedial efforts completed

***WARMINSTER-142***
*Bucks County*
**Completed**:
Inspected circuit visually and with thermographic camera
Installed single-phase reclosers
Upgraded switches
Upgraded wildlife protection
Completed reliability corrective work orders.
Perform regularly scheduled tree clearance
**Planned**:
Remedial efforts complete

***WAYNE-132***
*Delaware County*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders.
Performed regularly scheduled tree clearance
Install three-phase recloser
**Planned:**
Complete reliability corrective work orders.

***WEST GROVE 001***
*Chester County*
***Completed:***
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders
Upgraded transformer
***Planned:***
Install single-phase reclosers
Upgrade aerial wire
Perform regularly scheduled tree clearance

• Complete reliability corrective work orders

***WEST-OAK-LANE-012***
*Philadelphia*
**Completed:**
Inspected circuit visually and with thermographic camera
Completed reliability corrective work orders.
Replaced cable
**Planned**:
Remedial efforts complete

***WHITEMARSH-131***
*Montgomery County*
**Completed:**
Inspected circuit visually and with thermographic camera
Installed single phase recloser
Tested and adjusted or repaired recloser
Performed regularly scheduled tree clearance
**Planned**
Remedial efforts complete

***WHITEMARSH-141***
*Montgomery County*
**Completed:**
Inspected circuit visually and with thermographic camera
Upgraded fusing
Installed new underground cable
Tested and adjusted or repaired recloser
Completed reliability corrective work orders
Performed regularly scheduled tree clearance
**Planned:**
Install single-phase reclosers
Complete reliability corrective work orders

***WOODBOURNE-343***
*Bucks County*
**Completed:**
Inspected circuit visually and with thermographic camera
Upgraded lightning protection
Tested and adjusted or repaired recloser
Completed reliability corrective work orders
Performed regularly scheduled tree clearance
**Planned:**
Perform regularly scheduled tree clearance

## 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 Funds**

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

Duquesne Light
Our Energy...Your Power

ORIGINAL

Compliance Section
411 Seventh Avenue, Mail Drop 8-6
Pittsburgh, PA 15219

Office: 412-393-3662
Fax: 412-393-5687
vedwards@duqlight.com

**VIA OVERNIGHT MAIL DELIVERY**

RECEIVED

JUL 31 2007

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

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

Dear Mr. McNulty:

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 June 30, 2007 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 957.195, is marked "confidential and proprietary" and is enclosed in a sealed envelope.

Duquesne respectfully requests that 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) 393-3662.

DOCUMENT
FOLDER

Sincerely,

V. J. Edwards

Vernon J. Edwards
Supervisor, Regulatory Compliance

Enclosures

c: Mr. W. Williams – Bureau of CEEP
Mr. I. A. Popowsky – Office of Consumer Advocate
Mr. W. R. Lloyd, Jr. – Office of Small Business Advocate
Mr. D. Gill – Bureau of CEEP
Mr. B. J. Loper – Bureau of CEEP

**DUQUESNE LIGHT COMPANY**
**QUARTERLY RELIABILITY REPORT**
**July 27, 2007**

**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.**

Pamela Niehaus - Manager, Engineering Services
(412) 393-8446, pniehaus@duqlight.com

Gary Jack - Manager, Regulatory Affairs
(412) 393-1541, gjack@duqlight.com

**(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 second quarter of 2007.

**(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 | * |
| **2007 2Q (Rolling 12 mo)** | **96** | **0.82** | **117** | * |

* Sufficient information to calculate MAIFI is unavailable.

**Data used in calculating the indices**

| | | |
|---|---|---|
| Total KVA interrupted for the period: | 5,753,997 | KVA |
| Total KVA-minutes interrupted: | 672,950,440 | KVA-Minutes |
| System connected load as of 3/31/07: | 7,031,062 | KVA |

**Formulas used in calculating the indices**

$$SAIFI = \frac{\text{(Total KVA interrupted) - (KVA impact of major events)}}{\text{System Connected KVA}}$$

$$SAIDI = \frac{\text{(Total KVA-minutes interrupted) - (KVA-minute impact of major events)}}{\text{System Connected KVA}}$$

$$CAIDI = SAIDI/SAIFI$$

**(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. (See Attachment A for table of circuit reliability values and Service Centers associated with each circuit.)**

Beginning in 2007 circuits are evaluated based on a rolling twelve-month count of lockouts of protective devices (circuit breakers, sectionalizers and line reclosers). Circuits that experience four or more lockouts for a device in each quarterly rolling twelve-month period are identified and reported. Customer surveys show a significant drop in satisfaction when customers experience four or more interruptions in a year, and that threshold was therefore used as a basis for this new evaluation method.

The list is ranked first by the date of the most recent outage, with a secondary sort based on number of lockouts. This places a higher priority on circuits experiencing problems in the most recent quarter. Circuits that have not seen recent outages fall to a lower priority, but remain on the list for monitoring.

Circuits that appear on the list for more than a year will be targeted for remediation based on a review of outage records for root cause identification, field evaluations, and engineering analysis. Project scopes developed as a result of this analysis will be incorporated into the company's Work Plan for engineering, design and construction.

This circuit analysis is more timely than that used in the past, as it can be reviewed in-house on a quarterly or even a monthly basis. It provides a truer representation of the dynamic nature of Duquesne's distribution system and will identify poor performing areas more quickly. The threshold of four lockouts may produce a result greater or less than 5% of the total circuits in the system. Reports will be issued on all circuits that violate the four-lockout threshold, even if the total is greater than 5% of the number of circuits on the system.

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

## Second Quarter Rolling 12 Months

| Rank | Circuit | Name | Remedial Actions Planned or Taken |
|---|---|---|---|
| 1 | 23714 | Pine Creek | Trees and Storm Damage - VM Inspection Scheduled |
| 2 | 23780 | Valley | IR Inspection for 2007 |
| 3 | 23922 | Logans Ferry | VM Inspection Scheduled |
| 4 | 23716 | Pine Creek | Last 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. |
| 5 | 23763 | Wilmerding | Lockouts due to vehicle striking a pole and storms. This device will be monitored for further lockouts. |
| 6 | 23802 | Elwyn | VM Inspection Scheduled |
| 7 | 23862 | Wilson | IR Inspection completed and items repaired in June 2007 |
| 8 | 23708 | North | VM Inspection Scheduled |
| 9 | 23682 | Woodville | IR Inspection completed and items repaired in May 2007 - VM scheduled in 2007 |
| 10 | 23801 | Elwyn | The control unit for sectionalizer EA310 was replaced with a wireless unit on 9/30/06 (after an operation for unknown cause on 9/19/06). IR Inspection scheduled for 2007. Lateral fusing and VM scheduled for 2008. |
| 11 | 23695 | Brunot Island | Lateral fusing completed in 2006. |
| 12 | 23881 | Rankin | Circuit, including first section beyond the breaker was inspected by infrared crews in late 2006 and all hot spots were repaired by the Penn Hills Service Center. There have been no lockouts since October 17, 2006. |
| 13 | 4568 | Dormont | Outages were related to cable failures, and damage to the 4KV bus within the substation. Circuits were temporarily connected to a mobile substation until October, when cooler |

**(e)(4) (continued)**

For reference, the following chart shows the first quarter 2007 rolling 12 month worst circuits and action forecasted for remediation.

| Rank | Circuit | Name | Remedial Actions Planned or Taken |
|---|---|---|---|
| 1 | 23806 | Elwyn | IR Inspection completed. Issues identified and scheduled for repairs. VM scheduled for 2007. |
| 2 | 23862 | Wilson | IR Inspection completed and repairs completed on 6/14/07. |
| 3 | 23682 | Woodville | IR Inspection completed and repairs completed on 5/15/07. VM scheduled for 2007. |
| 4 | 23801 | Elwyn | The control unit for sectionalizer EA310 was replaced with a wireless unit on 9/30/06 (after an operation for unknown cause on 9/19/06). IR Inspection scheduled for 2007. Lateral fusing and VM scheduled for 2008. |
| 5 | 23764 | Wilmerding | Most recent lockout was caused by a vehicle striking a pole. This device will be monitored for further lockouts. |
| 6 | 23680 | Woodville | Lateral fusing completed in 2006. VM scheduled for 2007. |
| 7 | 23695 | Brunot Island | Lateral fusing completed in 2006. |
| 8 | 23716 | Pine Creek | Last 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. |
| 9 | 23698 | Brunot Island | Lateral fusing and VM scheduled for 2008. |
| 10 | 23881 | Rankin | Circuit, including first section beyond the breaker was inspected by infrared crews in late 2006 and all hot spots were repaired by the Penn Hills Service Center. There have been no lockouts since October 17, 2006. |
| 11 | 4568 | Dormont | Outages were related to cable failures, and damage to the 4KV bus within the substation. Circuits were temporarily connected to a mobile substation until October, when cooler weather permitted a scheduled outage to clean and repair the bus. Cables have be |
| 12 | 4824 | Valley | Lockouts during the summer were caused by circuit overloads. A load relief project was completed in July 2006, and there have been no lockouts since then. VM scheduled for 2007. |

**(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.**

July 1, 2006 through June 30, 2007

| Cause | No of Outages | Outage Percentage | KVA Total | KVA Percentag | KVA-Minute Total | KVA-Minute Percentage |
|---|---|---|---|---|---|---|
| Storms: | 649 | 20% | 1,532,554 | 27% | 214,033,707 | 32% |
| Trees (Contact): | 120 | 4% | 157,474 | 3% | 24,938,567 | 4% |
| Trees (Falling): | 423 | 13% | 772,583 | 13% | 145,197,020 | 22% |
| Equipment Failures: | 931 | 29% | 2,101,575 | 37% | 197,275,721 | 29% |
| Overloads: | 444 | 14% | 113,462 | 2% | 13,948,406 | 2% |
| Vehicles: | 151 | 5% | 338,816 | 6% | 40,403,890 | 6% |
| Other: | 464 | 15% | 737,535 | 13% | 37,153,133 | 6% |
| Totals: | 3,182 | 100% | 5,753,999 | 100% | 672,950,444 | 100% |

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

## Second Quarter 2007

| 2007 Transmission and Distribution Goals and Objectives<br>Program<br>Project | Unit of Measurement | Target for 2007 2Q | Actual for 2007 2Q | Percent Complete | Targets for Year 2007 |
|---|---|---|---|---|---|
| **Communications Goals** | | | | | |
| Telecom Battery Maintenance | Batteries | 31 | 37 | 119% | 124 |
| Microwave Radio Maintenance | Radio Units | 10 | 2 | 20% | 20 |
| **Overhead Distribution Goals** | | | | | |
| Sectionalizer/Recloser Control | Control Units | 75 | 81 | 108% | 148 |
| Sectionalizer Upper Switch | Switches | 100 | 59 | 59% | 210 |
| **Overhead Transmission Goals** | | | | | |
| Tower Helicopter Inspections | Number of Towers | 0 | 0 | N/A | 500 |
| Tower Ground Detail Inspections | Number of Towers | 0 | 0 | N/A | 300 |
| **Substations Goals** | | | | | |
| Breaker Maintenance | Breakers | 188 | 126 | 67% | 752 |
| Transformer Maintenance | Transformers | 60 | 47 | 78% | 81 |
| Station Battery Maintenance | Batteries | 280 | 202 | 72% | 1,120 |
| Station Relay Maintenance | Relays | 196 | 314 | 160% | 784 |
| **Underground Distribution Goals** | | | | | |
| Manhole Inspections | Manholes | 188 | 226 | 120% | 750 |
| Network Vault Inspections | Network Units | 138 | 89 | 64% | 550 |
| Network Protector Inspections | Protectors | 75 | 97 | 129% | 300 |
| **Underground Transmission Goals** | | | | | |
| Pressurization and Cathodic Protection Plant Inspection | Work Packages | 13 | 0 | 0% | 52 |
| **Vegetation Management Goals** | | | | | |
| Overhead Line Clearance | Circuit Overhead Miles | 453 | 560 | 124% | 1,675 |
| | **Total Units** | **1,807** | **1,840** | **102%** | |

**(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 | 2007 Budget | 2nd Qtr Actual | 2nd Qtr Budget | YTD Actual | YTD Budget |
|---|---|---|---|---|---|
| Restoration of Service | 4,028,000 | 589,857 | 1,083,000 | 1,086,431 | 1,880,000 |
| Customer Commitment | 2,882,000 | (24,978) | 718,000 | 442,691 | 1,388,000 |
| System Maintenance | 20,550,000 | 2,332,950 | 5,929,000 | 7,437,871 | 10,769,000 |
| System Capacity & Reliability | - | - | - | - | - |
| Infrastructure Support | - | - | - | - | - |
| Net Clearing | 10,675,000 | 3,164,196 | 2,669,000 | 5,611,593 | 5,337,000 |
| **Total Work Plan** | **38,135,000** | **10,369,532** | **10,399,000** | **18,886,093** | **19,374,000** |
| Total Non-Work Plan | - | - | | | |
| Total Operations & Customer Services | ***38,135,000*** | ***10,369,532*** | ***10,399,000*** | ***18,886,093*** | ***19,374,000*** |

**(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 | 2007 Budget | 2nd Qtr Actual | 2nd Qtr Budget | YTD Actual | YTD Budget |
|---|---|---|---|---|---|
| Restoration of Service | 17,000,000 | 5,550,297 | 4,504,000 | 9,624,572 | 8,164,000 |
| Customer Commitment | 20,000,000 | 6,108,254 | 4,949,000 | 12,255,900 | 9,419,000 |
| System Maintenance | - | 100,888 | - | 145,874 | - |
| System Capacity & Reliability | 109,400,000 | 24,126,605 | 32,491,000 | 49,299,338 | 71,071,000 |
| Infrastructure Support | 13,600,000 | 3,222,107 | 2,421,000 | 2,587,115 | 6,171,000 |
| Net Clearing | - | 660,216 | | (4,181,551) | |
| **Total Work Plan** | **160,000,000** | **39,768,367** | **44,365,000** | **78,094,350** | **94,825,000** |
| Total Non-Work Plan | - | - | | | |
| Total Operations & Customer Services | **160,000,000** | **39,768,367** | **44,365,000** | **78,094,350** | **94,825,000** |

**(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. linemen, technician, and electrician).**

| | | | |
|---|---|---|---|
| **Telecom** | Electronic Technician | 7 | |
| | Sr. Electronic Tech | 12 | |
| | Telecom Splicer/Trouble | 7 | |
| | Test Table Tech | 1 | |
| | **Total** | **27** | **27** |
| **Substation** | Electrical Equipment Tech | 29 | |
| | Protection & Control Tech | 29 | |
| | Sr. Elec. Equipment Tech | 7 | |
| | **Total** | **65** | **65** |
| **Underground** | Apprentice T&D | 6 | |
| | Driver Helper | 6 | |
| | Journey UG Inspector | 4 | |
| | Journey UG Splicer | 17 | |
| | Sr. UG Splicer | 3 | |
| | UG Cable Tester/Installer | 8 | |
| | UG Mechanic | 5 | |
| | Network Operator | 9 | |
| | **Total** | **58** | **58** |
| **Overhead** | Apprentice T&D | 54 | |
| | Rigger Specialist | 4 | |
| | Equipment Attendant | 1 | |
| | Equipment Material Handler | 5 | |
| | Equipment Operator | 1 | |
| | Field Inspector | 4 | |
| | Journey Lineworker | 92 | |
| | Lineworker 2/c | 3 | |
| | Lineworker Helper | 1 | |
| | Rigger Crew Leader | 2 | |
| | Service Crew Leader | 4 | |
| | Shop Mechanic 2 Rigger | 2 | |
| | Yard Group Leader | 2 | |
| | Sr. Lineworker | 64 | |
| | **Total** | **239** | **239** |
| **Street Light Changers** | **Total** | **9** | **9** |
| **Mobile Worker** | **Total** | **3** | **3** |

(e)(9) (Continued)

| | | | |
|---|---|---|---|
| **Engineering** | Drafter | 7 | |
| | General Clerk - Grad | 8 | |
| | General Technician | 3 | |
| | GIS Technician B | 2 | |
| | Head File Record Cle | 1 | |
| | Survey Instrument | 3 | |
| | Joint Use Technician | 1 | |
| | Right of Way Agent A | 4 | |
| | Sr. Technician | 5 | |
| | T&D Mobile Worker | 2 | |
| | Technician A | 1 | |
| | Technician B | 14 | |
| | Technician C | 1 | |
| | Test Technician, Mob | 4 | |
| | **Total** | **56** | **56** |
| **Service Center Technician** | General Technician | 1 | |
| | Sr. Technician | 11 | |
| | Technician | 1 | |
| | **Total** | **13** | **13** |
| **Traveling Operator/Troubleshooter** | Senior Operator | 26 | |
| | Traveling Operator | 1 | |
| | Traveling Operator 1 | 9 | |
| | Troubleshooter | 2 | |
| | Troubleshooter 1/c | 11 | |
| | **Total** | **49** | **49** |
| **Load Dispatcher** | **Total** | **9** | **9** |
| **Meter Technician** | Meter Technician | 18 | |
| | Sr. Meter Technician | 21 | |
| | **Total** | **39** | **39** |
| **Meter Reader** | **Total** | **15** | **15** |
| **Customer Service Representatives** | Autodialing Operator | 11 | |
| | Control Teller | 1 | |
| | Customer Service Rep | 90 | |
| | Intermediate Clerk | 0 | |
| | Sr. Customer Service | 3 | |
| | Telephone Switchboard | 1 | |
| | Teller | 2 | |
| | **Total** | **108** | **108** |
| **Admin/Supervisory/Mgmt** | **Total** | **361** | **361** |
| | | **Total** | **1051** |

(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 |
|---|---|---|---|---|
| **April** | 77 | 72 | 149 | 52% |
| **May** | 124 | 208 | 332 | 37% |
| **June** | 237 | 310 | 547 | 43% |

**Amount of time it takes to obtain the necessary personnel**

| | Total Calls | Workers Accepting | Average Response Time / Crew Call-out | | Average Response Time / Worker | |
|---|---|---|---|---|---|---|
| **April** | 25 | 77 | 20.1 | 503/25 | 6.5 | 503/77 |
| **May** | 41 | 124 | 19.3 | 793/41 | 6.4 | 793/124 |
| **June** | 64 | 237 | 32.4 | 2,075/64 | 8.8 | 2,075/237 |
| **2nd Quarter** | **130** | **438** | **25.9** | **3,371/130** | **7.7** | **3,371/438** |
| **YTD** | **229** | **710** | **26.7** | **6,120/229** | **8.6** | **6,120/710** |

## ATTACHMENT A

**(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.**

| Circuit | Name | Service Center | Device | Lockouts | Connected KVA | Last Outage | Total KVA-Minutes | Total KVA Interrupted | SAIDI | SAIFI | CAIDI |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 23714 | Pine Creek | Edison | BKR | 5 | 22,575 | 06/27/07 | 20,538,044 | 95,382 | 910 | 4.23 | 215 |
| 23780 | Valley | Raccoon | BKR | 5 | 22,224 | 06/27/07 | 12,430,980 | 98,988 | 559 | 4.45 | 126 |
| 23922 | Logans Ferry | Penn Hills | BKR | 4 | 15,778 | 06/27/07 | 1,348,259 | 16,828 | 85 | 1.07 | 80 |
| 23716 | Pine Creek | Edison | BKR | 7 | 40,357 | 06/13/07 | 11,117,277 | 131,949 | 275 | 3.27 | 84 |
| 23763 | Wilmerding | Penn Hills | EA344 | 4 | 21,080 | 06/13/07 | 7,252,461 | 88,960 | 344 | 4.22 | 82 |
| 23802 | Elwyn | Preble | BKR | 4 | 22,135 | 06/04/07 | 16,458,025 | 103,091 | 744 | 4.66 | 160 |
| 23862 | Wilson | Mckeesport | EA163 | 6 | 33,843 | 04/24/07 | 1,245,356 | 38,135 | 37 | 1.13 | 33 |
| 23708 | North | Edison | WA413 | 4 | 26,100 | 04/23/07 | 2,506,248 | 29,241 | 96 | 1.12 | 86 |
| 23682 | Woodville | Preble | EA274 | 4 | 29,007 | 02/13/07 | 17,389,795 | 108,248 | 600 | 3.73 | 161 |
| 23801 | Elwyn | Preble | EA310 | 4 | 18,113 | 12/13/06 | 2,505,741 | 37,881 | 138 | 2.09 | 66 |
| 23695 | Brunot Is. | Preble | EA770 | 4 | 23,890 | 12/02/06 | 15,943,655 | 59,641 | 667 | 2.50 | 267 |
| 23881 | Rankin | Penn Hills | BKR | 5 | 22,205 | 10/17/06 | 8,021,213 | 148,580 | 361 | 6.69 | 54 |
| 4568 | Dormont | Preble | BKR | 5 | 2,590 | 09/24/06 | 560,591 | 7,769 | 216 | 3.00 | 72 |

LEGAL SERVICES

Allegheny Energy

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L-00030161

August 1, 2007

ORIGINAL

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AUG 1 2007

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

**VIA FEDERAL EXPRESS**

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

**Re: Second Quarter 2007 Reliability Report of Allegheny Power**

Dear Secretary McNulty:

Enclosed please find an original and six copies of the Second Quarter 2007 Reliability Report of Allegheny Power. This report is filed by Federal Express and is deemed filed today, August 1, 2007. Copies of the report have been served on the parties to Allegheny Power's proceeding to amend reliability benchmarks at Docket No. M-00991220F0003.

Very truly yours,

DOCUMENT
FOLDER

John L. Munsch
John L. Munsch
Senior Attorney

cc: Darrenn G. Gill, Bureau of CEEP
PAPUC – Bureau of Audits
See Certificate of Service

# Allegheny Power
# Quarterly Report for Second Quarter 2007

This quarterly report is being submitted in accordance with Pennsylvania Code, Title 52 Public Utilities - Part I, Public Utility Commission, Subpart C, Fixed Services Utilities – Chapter 57, Electric Service Subchapter N, Electric Reliability Standards.

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

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



*§ 57.195 (e) (1) A description of each major event that occurred during the preceding quarter, including the time and duration of the event, the number of customers affected, the cause of the event and any modified procedures adopted in order to avoid or minimize the impact of similar events in the future.*

a. The following Major Events occurred during the second quarter of 2007. Note that these events are excluded based upon the service-area-wide 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 as previously issued to the Commission if applicable.

    i. There were no Major Events in the 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. In addition to major events, Allegheny Power tracks the effects of major weather events ("RS Events") that do not meet the 10% exclusion threshold but have a major effect on our reliability statistics. Because Allegheny Power's Pennsylvania territory is spread across four weather zones, large regional storms are typically not excluded, even though they often require massive restoration efforts. During the 12-month period ending June 2007, AP's Pennsylvania service territory experienced many such events, including a December 1st 2006 storm (34-minute SAIDI contribution) and a series of four June 2007 storms (the worst of which had a 28-minute SAIDI contribution). These items are discussed in more detail in section *(e)(2)*.

*§ 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 2007. MAIFI statistics are not recorded nor readily available at Allegheny Power. Sufficient field equipment is not available to provide meaningful data for momentary interruptions.

| Reliability Indices | Approved Settlement Benchmarks | Rolling 12-Month Standard | Rolling 3-Yr Avg. Standard | Current Quarter Performance (Rolling 12-month) |
|---|---|---|---|---|
| SAIFI | 1.05 | 1.26 | 1.16 | 1.297 |
| CAIDI | 170 | 204 | 187 | 203 |
| SAIDI | 179 | 257 | 217 | 264 |

Data supporting indices:

| Zone | Incidents | Affected Grids/ Structures | Interrupted Customers | Avg Cust Served | kVA | Calls | CMI | SAIDI | ASAI | CAIDI | SAIFI |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Pennsylvania | 19,547 | 19,547 | 904,258 | 697,732 | 9,091,878.8 | 139,348 | 183,789,097 | 264 | 0.999499 | 203 | 1.297 |

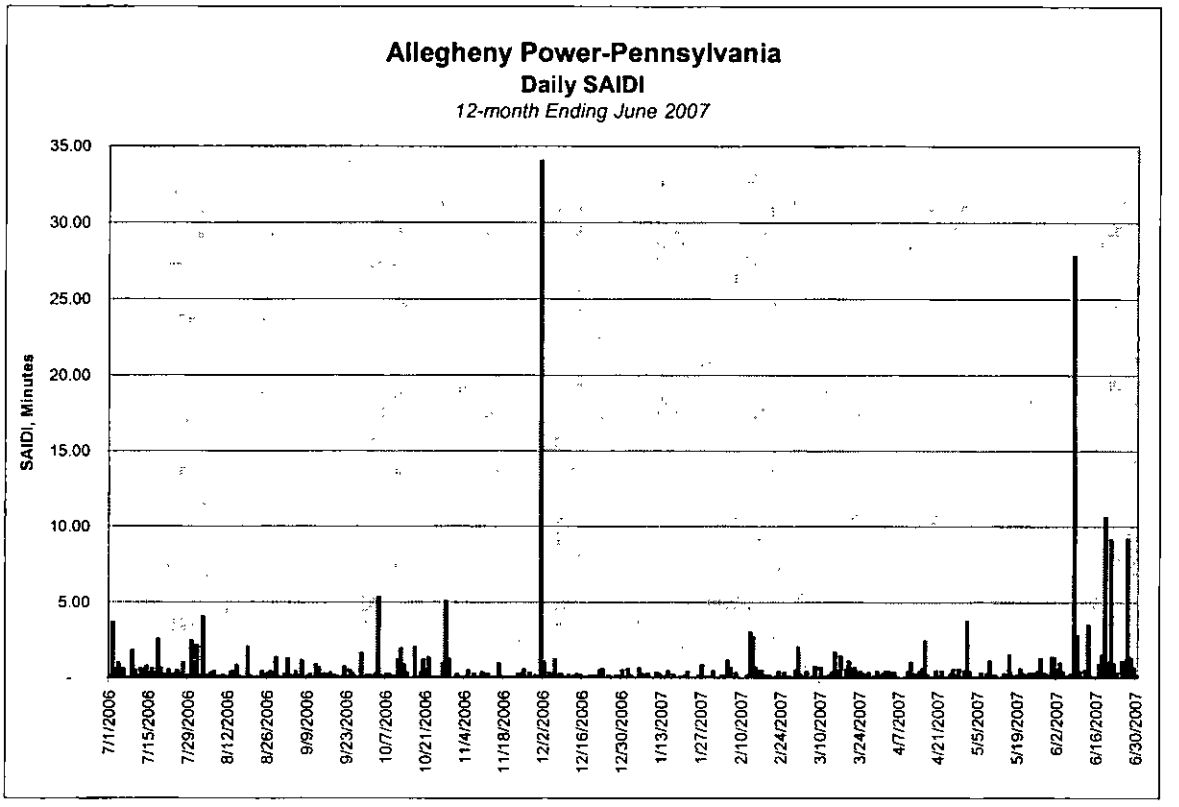
Discussion supporting statistics:

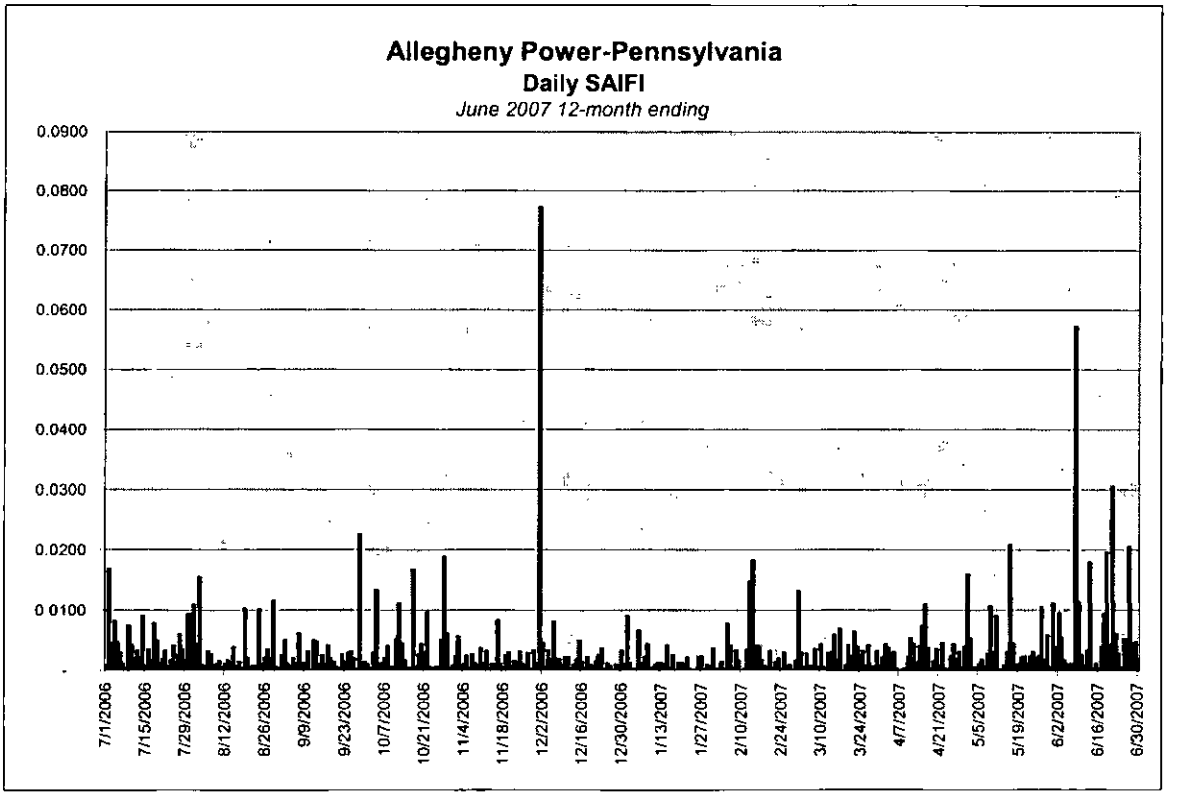
Allegheny Power has done some initial analysis on the increase in its reliability statistics during recent months.

Within the 12-month period, Allegheny's statistics were at their lowest in November 2006; at the end of that month, Allegheny's reliability statistics were SAIFI = 1.11; CAIDI = 166; and SAIDI = 184.

On December 1st, Allegheny experienced a major included storm in its Southwestern PA weather zone, which contributed 34 minutes of SAIDI and 0.08 SAIFI. Throughout June 2007, Allegheny experienced constant thunderstorm/high wind activity; on June 8th, 19th, 21st and 27th, AP experienced storms which totaled 57 SAIDI minutes and 0.13 SAIFI. When these storm days are excluded, Allegheny Power's June 2007 statistics drop to SAIFI = 1.09, CAIDI = 158; and SAIDI = 173.

The daily SAIDI and SAIFI are shown in the charts below. Allegheny Power will continue to analyze its Pennsylvania territory's reliability performance to uncover underlying trends.


Allegheny Power-Pennsylvania
Daily SAIDI
12-month Ending June 2007
SAIDI, Minutes
35.00
30.00
25.00
20.00
15.00
10.00
5.00
-
7/1/2006
7/15/2006
7/29/2006
8/12/2006
8/26/2006
9/9/2006
9/23/2006
10/7/2006
10/21/2006
11/4/2006
11/18/2006
12/2/2006
12/16/2006
12/30/2006
1/13/2007
1/27/2007
2/10/2007
2/24/2007
3/10/2007
3/24/2007
4/7/2007
4/21/2007
5/5/2007
5/19/2007
6/2/2007
6/16/2007
6/30/2007


Allegheny Power-Pennsylvania
Daily SAIFI
June 2007 12-month ending
0.0900
0.0800
0.0700
0.0600
0.0500
0.0400
0.0300
0.0200
0.0100
-
7/1/2006
7/15/2006
7/29/2006
8/12/2006
8/26/2006
9/9/2006
9/23/2006
10/7/2006
10/21/2006
11/4/2006
11/18/2006
12/2/2006
12/16/2006
12/30/2006
1/13/2007
1/27/2007
2/10/2007
2/24/2007
3/10/2007
3/24/2007
4/7/2007
4/21/2007
5/5/2007
5/19/2007
6/2/2007
6/16/2007
6/30/2007

*§ 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 Distribution Circuit Interruption Index (DCII). AP is considering a 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 DCII and 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. 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..

*§ 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 97% 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 12 Month ending June 07 | | Customers Interrupted 12 Month ending June 07 | | Customers Minutes Interrupted 12 Month ending June 07 | |
|---|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | Number | Percent |
| **Animals** | 1,477 | 7.9% | 32,818 | 3.7% | 3,320,107 | 1.8% |
| **Overhead Equipment Failure** | | | | | | |
| Overhead Line Equipment | 1,315 | 7.0% | 29,576 | 3.3% | 3,703,511 | 2.0% |
| Overhead Line Material | 1,550 | 8.2% | 99,471 | 11.2% | 13,725,541 | 7.6% |
| Overhead Wire | 1,637 | 8.7% | 85,402 | 9.6% | 13,330,229 | 7.3% |
| **Underground Equipment** | | | | | | |
| Underground Line Material | 34 | 0.2% | 483 | 0.1% | 100,579 | 0.1% |
| Underground Line Equipment | 86 | 0.5% | 1,359 | 0.2% | 416,810 | 0.2% |
| Underground Cable | 331 | 1.8% | 11,774 | 1.3% | 3,701,826 | 2.0% |
| **Service Equipment** | 43 | 0.2% | 46 | 0.0% | 7,358 | 0.0% |
| **Substation Equipment** | 162 | 0.9% | 36,307 | 4.1% | 3,889,778 | 2.1% |
| **Other** | 197 | 1.0% | 17,919 | 2.0% | 1,709,604 | 0.9% |
| **Public/Customer** | 2,014 | 10.7% | 131,732 | 14.8% | 21,455,318 | 11.8% |
| **Trees** | | | | | | |
| On Right of Way | 155 | 0.8% | 7,458 | 0.8% | 1,182,386 | 0.7% |
| Off Right of Way | 3,901 | 20.8% | 164,012 | 18.5% | 48,766,935 | 26.9% |
| Slide into Line from off ROW | 9 | 0.0% | 1,216 | 0.1% | 243,567 | 0.1% |
| **Unknown** | 1,978 | 10.5% | 89,068 | 10.0% | 11,208,952 | 6.2% |
| **Weather** | 3,899 | 20.8% | 179,530 | 20.2% | 54,760,107 | 30.2% |
| **Total** | 18,788 | 100% | 888,171 | 100% | 181,532,708 | 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 2007.
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 an organizational view of the company. Cost categories may change as individual groups are sometimes realigned but the reported total T&D O&M expenditures will remain consistent.

| T&D Category | Budget 2nd qtr | Actual 2nd qtr | Budget YTD | Actual YTD |
|---|---|---|---|---|
| .....Distribution Admin_CC | $ (91,590) | $ 74,424 | $ (641,901) | $ 158,542 |
| .....Distribution Support_CC | $ 1,786,848 | $ 1,721,653 | $ 3,374,871 | $ 3,093,982 |
| .....Field Operations_CC | $ 5,879,318 | $ 4,873,729 | $ 12,027,991 | $ 10,361,820 |
| .....Distribution Forestry_CC | $ 2,402,904 | $ 1,889,364 | $ 4,613,133 | $ 3,984,980 |
| .....Transmission Other_CC | $ (10,122) | $ 1,680,699 | $ (30,622) | $ 1,885,030 |
| .....Substations_CC | $ 1,860,512 | $ 1,601,743 | $ 3,465,052 | $ 3,172,272 |
| .....Transmission Planning & Operations | $ 1,186,102 | $ 1,023,932 | $ 2,312,714 | $ 2,052,764 |
| .....Technical Services - Delivery_CC | $ 834,846 | $ 903,947 | $ 1,650,111 | $ 1,756,241 |
| .....Transmission Engineering_CC | $ 816,685 | $ 750,855 | $ 1,366,471 | $ 1,870,180 |
| .....Transmission Forestry_CC | $ 840,178 | $ 773,669 | $ 1,583,607 | $ 1,154,157 |
| .....Transmission Projects_CC | $ 261,961 | $ 129,827 | $ 482,189 | $ 193,140 |
| .....Transmission Siting_CC | $ 193,006 | $ 167,650 | $ 400,004 | $ 359,133 |
| .....EHV Projects_CC | | $ (10,405) | | $ 18,510 |
| Total | 15,960,648 | 15,581,087 | 30,603,618 | 30,060,750 |

*§ 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.)*

| | | $ millions | | | |
|---|---|---|---|---|---|
| Plant code | Equipment | 2nd Quarter Budget | 2nd Quarter Actual | YTD Budget | YTD Actual |
| 03 | EHV Substation | $ 0.0 | $ 1.0 | $ 0.0 | $ 1.0 |
| 04 | EHV Lines | $ - | $ 0.0 | $ - | $ 0.0 |
| 05 | Transmission Substation | $ 1.0 | $ 0.4 | $ 0.2 | $ 0.5 |
| 06 | Elect Transmission Lines | $ 0.4 | $ 0.1 | $ 0.5 | $ 1.3 |
| 07 | Distribution Substation | $ 1.4 | $ 2.1 | $ 3.2 | $ 3.1 |
| 08 | Elect Distribution Lines | $ 11.1 | $ 14.1 | $ 21.4 | $ 25.1 |
| 09 | Elect General Plant | $ 1.8 | $ 0.5 | $ 2.5 | $ 0.7 |
| 11 | Subtransmission | $ (0.4) | $ (0.3) | $ (0.4) | $ 0.2 |
| | Total | $ 15.3 | $ 17.9 | $ 27.3 | $ 31.8 |

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

| Position | Count |
|---|---|
| **Lead Lineman Count** | 104 |
| **Lineman A Count** | 52 |
| **Lineman C Count** | 1 |
| **Serviceman A Count** | 82 |
| **Serviceman Apprentice Count** | 37 |
| **Serviceman B Count** | 2 |
| **Serviceman C Count** | 7 |
| **SS Crew Leader Maintenance Count** | 14 |
| **SS Electrician A Count** | 35 |
| **SS Electrician Apprentice Count** | 3 |
| **SS Electrician B Count** | 6 |
| **SS Electrician C Count** | 5 |
| **Utilityman A Count** | 6 |
| **Utilityman B Count** | 2 |
| **Grand Count** | 356 |

*§ 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 presented are for T&D O&M only. AP's previous reports included capital as was available from its financial reporting system. AP implemented a new SAP system as of 1/1/07 and is now able to capture T&D O&M. Note that much of AP's contracted work involves firm price/unit price contracts for which no man-hours are documented.

| Quarter | Contract Dollars - Qtr | Contract Dollars - YTD |
|---|---|---|
| 1st qtr | $1,243,895 | $1,243,895 |
| 2nd qtr | $1,658,116 | $2,902,011 |

*§ 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 4.4 minutes in the second quarter. This number represents the elapsed time per callout list divided by the number of people that accepted. This time includes ready response, which has an elapsed

time of 0 minutes. The data is only for linemen and electrician callouts. The average response time per crew was 5.4 minutes.

Allegheny Power compliance with terms of July 20th, 2006 Reliability Settlement Petition Opinion and Order:

| Item | Description | Compliance Status |
|---|---|---|
| 1 | Make Adjustments to Vegetation Maintenance Practices to reduce its rights-of-way clearing cycle to no longer than four (4) years. | Practice in effect |
| 2 | Make adjustments to vegetation program to include an assessment of off-right-of-way danger trees. | Practice in effect |
| 3 | Maintain 12-year pole inspection cycle for distribution and sub-transmission wood poles | Practice in effect |
| 4 | Maintain 12-year facilities inspection cycle for distribution and sub-transmission wood poles | Practice in effect |
| 5 | Inspections to Include visual inspections of pole, materials and equipment contained thereon from ground line to top of pole, hammer soundings, borings, excavation and treatment of pole. | Practice in effect |
| 6 | Perform a mid-cycle visual inspection of poles and equipment such that all circuits are inspected, on average, every 6 years. Incorporate reliability performance and performance of materials and equipment into the prioritization of circuits. | Practice in effect |
| 7 | Perform a line workforce study and substation workforce study | Complete |
| 8 | Deliver study to Parties within 60 days of final entry of non-appealable Order. | Delivered to Local 102 on 10/24/06; PREA on 3/7/2007 |
| 9 | Discuss study with Parties within 10 days of delivery. | Met with Local 102 on 10/24/06 |
| 10 | Within 60 days of entry of final non-appealable order, provide parties with copies of all reliability-related reports filed with the Commission under 52 Pa. Code 57.195 and any additional monitoring reports or compliance reports that may be required under 52 Pa. Code 57.194(h)(1). | Effective 3rd quarter 2006 report. |
| 11 | In quarterly and annual reports, include a section reporting on compliance of settlement | Effective 3rd quarter 2006 report. |
| 12 | PREA/AEC - meet semi-annually (first meeting to be held no later than 45 days of the date of the final, non-appealable order | First meeting held 9/14/06 |
| 13 | PREA/AEC meeting - Discuss most recent outages with particular emphasis on those with duration > 120 minutes | Discussed at 3/7/2007 meeting |
| 14 | PREA/AEC meeting - Indentify and agree on mutual delivery points that serve critical services/customers | Discussed at 3/7/2007 meeting |
| 15 | PREA/AEC meeting - discuss five "worst performing" Delivery Points | Discussed at 3/7/2007 meeting |

# Appendix I – 5% Distribution Circuit Statistics

| SCName | SSName | CktName | CustServed | DCI | SAIFI | SAIDI | CAIDI | ASAI | CMI | CustIntrup | CircuitLockouts | Incidents | Miles |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arnold | ALLERIVER | ALLERIVER | 180 | 53 | 2.2 | 503 | 229 | 0.99904 | 90,590 | 396 | - | 10 | 14 |
| Butler | SARVER | BEARCREEK | 372 | 46 | 3.1 | 562 | 184 | 0.99893 | 208,848 | 1,137 | 3 | 11 | - |
| Butler | SAXONBURG 138KV | HANNAHSTOWN | 538 | 54 | 1.6 | 493 | 311 | 0.99906 | 265,387 | 853 | 2 | 25 | 32 |
| Butler | SHERWIN | WEST SUNBURY | 794 | 63 | 1.9 | 352 | 190 | 0.99933 | 279,748 | 1,475 | 2 | 23 | 44 |
| Charleroi | LARGE | LARGE | 528 | 77 | 1.2 | 172 | 150 | 0.99967 | 90,772 | 606 | 1 | 13 | 16 |
| Charleroi | VANCEVILLE | VANCEVILLE | 1,319 | 33 | 3.2 | 784 | 243 | 0.99851 | 1,034,240 | 4,257 | 3 | 130 | 102 |
| Clarion | SLIGO | REIDSBURG | 653 | 71 | 1.2 | 253 | 205 | 0.99952 | 165,490 | 806 | - | 24 | 77 |
| Jeannette | HUNTINGDON | HAHNTOWN | 1,816 | 82 | 0.5 | 110 | 210 | 0.99979 | 199,504 | 951 | - | 30 | 19 |
| Jeannette | PENN | ARLINGTON | 1,611 | 67 | 1.5 | 310 | 207 | 0.99941 | 499,742 | 2,419 | 1 | 43 | 22 |
| Jeannette | SEWICKLEY | MIDDLETOWN | 823 | (6) | 2.3 | 1,492 | 654 | 0.99716 | 1,227,825 | 1,877 | 1 | 60 | 41 |
| Jefferson | RUTAN | BRISTORIA | 1,153 | 26 | 3.7 | 880 | 236 | 0.99833 | 1,015,184 | 4,297 | - | 77 | 189 |
| Kittanning | BRIDGEBURG | BRIDGEBURG | 55 | 57 | 1.0 | 406 | 414 | 0.99923 | 22,329 | 54 | 1 | 4 | 5 |
| Latrobe | BETHLEN | LAUGHLINTOWN | 1,106 | 72 | 1.3 | 232 | 180 | 0.99956 | 257,051 | 1,428 | - | 49 | 57 |
| Latrobe | NEW ALEXANDRIA | SUNDIAL | 407 | 61 | 2.0 | 379 | 186 | 0.99928 | 154,136 | 828 | 1 | 30 | 29 |
| McConnellsburg | MCCONNELLSBURG | HARRISONVILLE | 1,387 | 48 | 2.9 | 540 | 187 | 0.99897 | 748,389 | 4,011 | 1 | 71 | 102 |
| McConnellsburg | WHITETAIL | RESORT | 384 | 61 | 2.3 | 348 | 153 | 0.99934 | 133,800 | 877 | - | 21 | 29 |
| Pleasant Valley | IRON BRIDGE 138/12 | ALVERTON | 668 | 86 | 0.4 | 73 | 167 | 0.99986 | 48,839 | 293 | - | 32 | 25 |
| Pleasant Valley | IRON BRIDGE 138/12 | BRIDGEPORT | 1,243 | 71 | 0.5 | 197 | 372 | 0.99963 | 244,479 | 657 | - | 41 | 36 |
| St Marys | MARVINDALE | CLERMONT | 914 | 32 | 3.1 | 828 | 270 | 0.99842 | 757,358 | 2,800 | 2 | 23 | 64 |
| St Marys | MARVINDALE | MARVIN CREEK | 161 | 56 | 1.9 | 457 | 238 | 0.99913 | 73,649 | 309 | 1 | 3 | 9 |
| St Marys | MT. JEWETT | TOWN-MT JEWETT | 557 | 56 | 2.2 | 453 | 211 | 0.99914 | 252,128 | 1,196 | 1 | 12 | 27 |
| St Marys | ROULETTE | BURTVILLE | 284 | 43 | 2.4 | 650 | 269 | 0.99876 | 184,806 | 687 | 3 | 18 | 25 |
| St Marys | ROULETTE | TOWN ROULETTE | 460 | 40 | 2.5 | 713 | 291 | 0.99864 | 328,155 | 1,128 | 2 | 26 | 20 |
| State College | ATHERTON | SOUTH HILLS | 998 | 77 | 1.7 | 136 | 79 | 0.99974 | 135,775 | 1,720 | 1 | 57 | 8 |
| State College | BEECH CREEK | BEECH CREEK | 291 | 60 | 0.0 | 25 | 819 | 0.99995 | 7,371 | 9 | - | 5 | 21 |
| State College | BEECH CREEK | BLANCHARD | 1,567 | 54 | 1.2 | 468 | 405 | 0.99911 | 733,856 | 1,811 | 1 | 48 | 83 |
| State College | FOWLER | BALD EAGLE | 391 | 47 | 0.7 | 446 | 656 | 0.99915 | 174,370 | 266 | - | 26 | 41 |
| State College | MT. RIANSARES TOWER | MT. RIANSARES | 13 | 56 | 3.0 | 383 | 128 | 0.99927 | 4,977 | 39 | - | 3 | 4 |
| State College | SCOTIA | SCHOOL | 1,020 | 57 | 2.4 | 406 | 167 | 0.99923 | 414,319 | 2,482 | 2 | 29 | 20 |
| State College | THOMPSON FARM | TOFTREES | 933 | 59 | 1.9 | 408 | 220 | 0.99922 | 380,412 | 1,726 | - | 35 | 16 |
| State College | WATERVILLE | WATERVILLE | 339 | (37) | 5.1 | 2,059 | 408 | 0.99608 | 697,175 | 1,709 | - | 27 | 20 |
| Uniontown | BETHELBORO | COOLSPRING | 1,451 | 53 | 2.6 | 471 | 179 | 0.99910 | 683,278 | 3,827 | - | 51 | 43 |
| Uniontown | EAST MILLSBORO | EAST MILLSBORO | 174 | (11) | 2.3 | 1,585 | 688 | 0.99698 | 275,757 | 401 | - | 36 | 15 |
| Uniontown | FARMINGTON | OHIOPYLE | 612 | 73 | 0.9 | 214 | 242 | 0.99959 | 130,898 | 540 | - | 27 | 62 |
| Washington | AMITY | BANETOWN | 1,464 | 51 | 1.4 | 520 | 381 | 0.99901 | 761,872 | 2,000 | - | 76 | 108 |
| Washington | HOUSTON | MCGOVERN | 1,618 | (9) | 4.3 | 1,531 | 352 | 0.99709 | 2,477,392 | 7,029 | 2 | 80 | 68 |
| Washington | PANCAKE | STRABANE | 329 | (34) | 3.5 | 2,073 | 601 | 0.99606 | 681,713 | 1,134 | 3 | 39 | 10 |
| Washington | PANCAKE | VANCE | 379 | (59) | 4.0 | 2,568 | 645 | 0.99511 | 973,872 | 1,509 | 3 | 50 | 37 |
| Waynesboro | FAYETTEVILLE | FALLING SPRINGS | 686 | 50 | 2.9 | 501 | 176 | 0.99905 | 343,722 | 1,956 | 2 | 47 | 35 |
| Waynesboro | QUINCY | ANTHONY HIGHWAY | 904 | 77 | 2.1 | 100 | 48 | 0.99981 | 90,629 | 1,876 | 1 | 17 | 25 |

# Appendix II – 5% Distribution Circuit Remedial Actions

| SCName | SSName | CktName | Actions Taken or Planned | Status |
|---|---|---|---|---|
| Arnold | ALLERIVER | ALLERIVER | Two lockouts occurred when the substation was on single feed to dur planned 25 kV work on alternate feed line. Will investigate additional fusing on side taps. Add recloser. | Circuit review completed first quarter. Design in progress. |
| Boyce | TREVESKYN | TREVESKYN | Install 25KV airswitches to automate substation | Design in progress. |
| Butler | SARVER | BEARCREEK | Circuit was transferred to adjacent circuit fed by 138 kV transmission. This will eliminate subtransmission-caused outages. Tree trimming planned for 2007. | Circuit transfer complete. |
| Butler | SAXONBURG 138KV | HANNAHSTOWN | Lockouts due to trees and customer vehicle in same location. Will investigate possible ties. | Investigation in progress. |
| Butler | SHERWIN | WEST SUNBURY | Half actionalizing scheme installed at the station. Tree trimming planned for 2007. | Sectionalizing installed. |
| Charleroi | LARGE | LARGE | Trees trimmed in 2006. Replaced two-25kV airswitches in 2206 Built a circuit tie to adjacent circuit in 2006. | Work completed. |
| Charleroi | VANCEVILLE | VANCEVILLE | Trees trimmed in 2006. One outage caused by lightning affected 63% of the CMI for the period. | Trimming completed. |
| Clarion | SLIGO | REIDSBURG | Substation automated in 2006. This will eliminate subtransmission lockouts. | Work completed. |
| Jeannette | HUNTINGDON | HAHNTOWN | Tree trimming planned for 2007. One lockout accounted for 95% of the outages. An off ROW tree broke a pole. Work was delayed until after midnight to interrupt businesses on the dual-circuit pole. The inaccessible pole was replaced between midnight and 6 AM . Reclosers added and another set relocated in 2006 to reduce mainline exposure. | Circuit review completed first quarter. 2006 Recloser work completed. |
| Jeannette | PENN | ARLINGTON | Tree trimming planned for 2007. Electronic OCRs planned for 2007. Will investigate lightning arrestors for lightning-prone areas. | Circuit review completed first quarter. Design work in progress. |
| Jeannette | SEWICKLEY | MIDDLETOWN | Trees trimmed in 2006. Reconductoring and circuit splitting projects pending PA Turnpike widening project planned for same area - would require major relocation of circuit mainline. | Circuit review completed first quarter. |
| Jefferson | RUTAN | BRISTORIA | Reconductor 7 miles of 3-phase line along with widening ROW and relocating portions of line. Replace sections of conductor at other locations. Pole inspection cycle. | Work in progress. |
| Kittanning | BRIDGEBURG | BRIDGEBURG | Fault indicators added to subtransmission line feeding the station to aid in patrolling. Circuit coordination review completed in 2006. Section of three-phase line replaced in 2006. | Work completed. |
| Latrobe | BETHLEN | LAUGHLINTOWN | Trees were trimmed in 2006. About 50% of the outages occurred on 4/26/06 due to tree on line. Will investigate moving line reclosers. Added fuse to protect underground tap. | Circuit review completed first quarter. Circuit field review planned 3rd quarter. |
| Latrobe | NEW ALEXANDRIA | SUNDIAL | Ninety-seven percent of the outages occurred on 6/22/06 due to high wind Circuit review planned for 2007. | Circuit review completed first quarter. |
| McConnellsburg | MCCONNELLSBURG | HARRISONVILLE | Trees trimmed in 2006. | Trimming completed. |
| McConnellsburg | WHITETAIL | RESORT | Trees trimmed in 2006. | Trimming completed. |
| Pleasant Valley | IRON BRIDGE 138/12 | ALVERTON | Four lockouts were caused by a loose insulator pin that would fault against the pole then return to normal position. | Pin/insulator found and repaired. |
| Pleasant Valley | IRON BRIDGE 138/12 | BRIDGEPORT | Tree trimming planned for 2007. | Trimming completed. |
| St Marys | MARVINDALE | CLERMONT | Tree trimming planned for 2007. Fuse review completed in 2004, added 5 line fuses. | Trimming completed. |
| St Marys | MARVINDALE | MARVIN CREEK | Tree trimming planned for 2007. Fuse review completed in 2006, added 5 line fuses. | Trimming completed. Fuses added. |
| St Marys | MT. JEWETT | TOWN-MT JEWETT | Trees trimmed in 2006. | Trimming completed. |
| St Marys | ROULETTE | BURTVILLE | Tree trimming planned for 2007. Fuse review completed in 2006, added 16 line fuses. Replacing substation transformer this year with a larger unit with an LTC | Trimming planned. |
| St Marys | ROULETTE | TOWN ROULETTE | Tree trimming planned for 2007. Fuse review completed in 2005, added 3 line fuses. Replacing substation transformer this year with a larger unit with an LTC. | Trimming planned. |
| State College | ATHERTON | SOUTH HILLS | Reconductoring one mile of line in 2006 | Design in progress. |
| State College | BEECH CREEK | BEECH CREEK | Trees trimmed in 2006 Fuse review completed in 2006, added 9 line fuses. | Trimming completed. Fuses added. |
| State College | BEECH CREEK | BLANCHARD | Trees trimmed in 2006. Fuse review completed in 2004, added 27 line fuses. | Trimming completed. |
| State College | FOWLER | BALD EAGLE | Fuse review completed in 2005, added 27 line fuses and 2 reclosers | Fuses added. |
| State College | MT. RIANSARES TOWER | MT. RIANSARES | Fuse review completed in 2006, added no line fuses. | Fuses added. |
| State College | SCOTIA | SCHOOL | Fusing review scheduled in 2007, will be adding fusing at several locations. | Review planned. |
| State College | THOMPSON FARM | TOFTREES | Trees trimmed in 2006. Fuse review completed in 2004, added 10 line fuses. Replaced/injected most of the #2 and 4/0 UG cable on circuit. Replaced two UG switches and added a 750 MCM UG circuit tie for the radial UG feeder that existed on the west side of the Toftrees development (Oakwood 12 kV). As the east side of Toftrees develops we will be adding another 750 MCM UG circuit tie (Village 12 kV). Reduced exposure/loading with new circuit (Village 12 kV). | Work completed. |
| State College | WATERVILLE | WATERVILLE | Tree trimming planned for 2007. Fuse review completed in 2005, added 3 line fuses. | Fuses added. Trimming planned. |
| Uniontown | BETHELBORO | COOLSPRING | Trees trimmed in 2006. Circuit tie planned for 2007 with adjacent circuit. | Design in progress. |
| Uniontown | EAST MILLSBORO | EAST MILLSBORO | Tree trimming planned for 2007. One lockout caused by an off right-of-way tree contributed ninety-eight percent of the CMI for the period on this small circuit. | Trimming planned. |
| Uniontown | FARMINGTON | OHIOPYLE | New 138/12 substation with circuit feeders built in 2006. This will eliminate subtransmission lockouts. | Work completed. |
| Washington | AMITY | BANETOWN | Trees trimmed in 2006. | Trees trimmed. |
| Washington | HOUSTON | MCGOVERN | Circuit review in 2007. | Circuit review planned. |
| Washington | PANCAKE | STRABANE | Trees trimmed in 2006 | Trees trimmed. |
| Washington | PANCAKE | VANCE | Circuit review in 2007. | Circuit review planned. |
| Waynesboro | FAYETTEVILLE | FALLING SPRINGS | Trees trimmed in 2006. Plans to install animal guards on high frequency animal contact poles | Trees trimmed. |
| Waynesboro | QUINCY | ANTHONY HIGHWAY | Tree trimming planned for 2007. Circuit recoordination completed on 8/8/06. | Trimming planned. |

## Appendix III – Goals Progress

Note that targets have been provided for earlier 'TBD' targets. Certain targets were not available previously due to personnel changes and implementation of SAP. Major ERS SS Projects and Major ERS Lines Projects were combined into one goal. UG Cable replacement and cable injection were changed to correspond to the units (feet) listed. SS spraying was revised to reflect consistent units (manhours). Danger poles and reject poles were revised to reflect increased scope of work planned.

| 2007 Goals - Pennsylvania - Complete Planned Ensure Reliable Service (ERS) Work<br>Second Quarter Results | | | | |
|---|---|---|---|---|
| ERS Program/Project | Unit of Measurement | Target for 2007 | Actual Completed | % Completed |
| Transmission Herbicide Application | # Transmission Lines | 7 | 0 | 0% |
| Transmission Lines Trimming and Clearing | # Transmission Lines | 47 | 6 | 13% |
| Subtransmission Herbicide Application | # of Subtransmission Lines | 62 | 2 | 3% |
| Subtransmission Line Trimming and Clearing | # of Subtransmission Lines | 40 | 7 | 18% |
| Distribution Line Trimming, Clearing & Herbicide Applic. | # of Distribution Line Miles | 1846 | 682 | 37% |
| Major ERS Projects | # Projects | 2 | 0.1 | 3% |
| Transmission Comprehensive Patrol | # Transmission Lines | 8 | 6 | 75% |
| Transmission General Patrol | # Transmission Lines | 120 | 54 | 45% |
| Ground & Footer Inspections | # Transmission Lines | 5 | 0 | 0% |
| Pole Inspection | # Transmission Lines | 16 | 0 | 0% |
| Pole Replacements | # Transmission Poles | 2 | 0 | 0% |
| Non-Critical Transmission Repairs | # Non-Critical Items | 24 | 15 | 63% |
| Subtransmission General Patrol | # Subtransmission Lines | 481 | 7 | 1% |
| SS Work (Includes Capital, Planned, & Preventive) | Man-Hours | 64,075 | 25,495 | 40% |
| SS Spraying | Manhours | 3,133 | 1,169 | 37% |
| Controls Work (Includes Cap., Planned, & Preventative) | Man-Hours | 5,660 | 1,402 | 25% |
| Individual ERS Budget Projects | Man-Hours | 20,564 | 6,760 | 33% |
| Small Planning Projects | Man-Hours | 25,442 | 6,236 | 25% |
| Pole Inspection | # of Circuits | 95 | 7 | 7% |
| Pole Reinforcement | # Poles | 246 | 0 | 0% |
| Danger Poles | # Danger Poles | 115 | 87 | 76% |
| Reject Poles | # Reject Poles | 345 | 190 | 55% |
| AIM Work | Points Completed | 4,038 | 1,640 | 41% |
| RIP Program | Manhours | 5,670 | 1,227 | 22% |
| UG Equipment Inspections | # Locations | 5,592 | 2,675 | 48% |
| Recloser Inspections | # Reclosers | 2,432 | 2,036 | 84% |
| Regulator Inspections | # Regulators | 730 | 650 | 89% |
| Capacitors Inspections | # Capacitors | 1,073 | 885 | 82% |
| Recloser Replacements | # Reclosers | 252 | 139 | 55% |
| UGD Cable Replacement | Feet | 29,657 | 44,420 | 150% |
| Cable Injection | Feet | 27,961 | 8,585 | 31% |

*SS and Controls targets reflect original goals that were mislabeled.*

# Appendix IV – Callout Acceptance

**Allegheny Power** 2007

Pennsylvania local 102

**Linemen**

| Service Center | Jan,Feb,Mar | | | Apr,May,Jun | | | Jul,Aug,Sep | | | Oct,Nov,Dec | | | YTD | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. of Calls | No. Accepted | Average | No. of Calls | No. Accepted | Average | No. of Calls | No. Accepted | Average | No. of Calls | No. Accepted | Average | No. of Calls | No. Accepted | Average |
| Arnold | 549 | 167 | 30% | 578 | 198 | 34% | 0 | 0 | | 0 | 0 | | 1127 | 365 | 32% |
| Boyce | 295 | 126 | 43% | 423 | 172 | 41% | 0 | 0 | | 0 | 0 | | 718 | 298 | 42% |
| Butler | 484 | 160 | 33% | 923 | 246 | 27% | 0 | 0 | | 0 | 0 | | 1407 | 406 | 29% |
| Charleroi | 292 | 122 | 42% | 550 | 171 | 31% | 0 | 0 | | 0 | 0 | | 842 | 293 | 35% |
| Clarion | 70 | 34 | 49% | 163 | 68 | 42% | 0 | 0 | | 0 | 0 | | 233 | 102 | 44% |
| Jeannette | 733 | 158 | 22% | 769 | 215 | 28% | 0 | 0 | | 0 | 0 | | 1502 | 373 | 25% |
| Jefferson | 244 | 111 | 45% | 461 | 129 | 28% | 0 | 0 | | 0 | 0 | | 705 | 240 | 34% |
| Kittanning | 117 | 60 | 51% | 315 | 111 | 35% | 0 | 0 | | 0 | 0 | | 432 | 171 | 40% |
| Latrobe | 441 | 186 | 42% | 536 | 167 | 31% | 0 | 0 | | 0 | 0 | | 977 | 353 | 36% |
| McConnellsburg | 179 | 111 | 62% | 261 | 137 | 52% | 0 | 0 | | 0 | 0 | | 440 | 248 | 56% |
| McDonald | 144 | 70 | 49% | 195 | 95 | 49% | 0 | 0 | | 0 | 0 | | 339 | 165 | 49% |
| Pleasant Valley | 373 | 132 | 35% | 527 | 164 | 31% | 0 | 0 | | 0 | 0 | | 900 | 296 | 33% |
| St.Mary's | 144 | 122 | 85% | 324 | 183 | 56% | 0 | 0 | | 0 | 0 | | 468 | 305 | 65% |
| State College | 486 | 119 | 24% | 955 | 187 | 20% | 0 | 0 | | 0 | 0 | | 1441 | 306 | 21% |
| Uniontown | 419 | 216 | 52% | 444 | 200 | 45% | 0 | 0 | | 0 | 0 | | 863 | 416 | 48% |
| Washington | 402 | 101 | 25% | 565 | 108 | 19% | 0 | 0 | | 0 | 0 | | 967 | 209 | 22% |
| Waynesburo | 519 | 184 | 35% | 800 | 218 | 27% | 0 | 0 | | 0 | 0 | | 1319 | 402 | 30% |
| Total AP Average | 5891 | 2179 | 37% | 8789 | 2769 | 32% | 0 | 0 | | 0 | 0 | | 14680 | 4948 | 34% |

**Electricians**

| Service Center | Jan,Feb,Mar | | | Apr,May,Jun | | | Jul,Aug,Sep | | | Oct,Nov,Dec | | | YTD | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. of Calls | No. Accepted | Average | No. of Calls | No. Accepted | Average | No. of Calls | No. Accepted | Average | No. of Calls | No. Accepted | Average | No. of Calls | No. Accepted | Average |
| Arnold | 61 | 44 | 72% | 81 | 63 | 78% | 0 | 0 | | 0 | 0 | | 142 | 107 | 75% |
| Boyce | 21 | 15 | 71% | 39 | 23 | 59% | 0 | 0 | | 0 | 0 | | 60 | 38 | 63% |
| Butler | 29 | 23 | 79% | 44 | 23 | 52% | 0 | 0 | | 0 | 0 | | 73 | 46 | 63% |
| Charleroi | 36 | 18 | 50% | 51 | 32 | 63% | 0 | 0 | | 0 | 0 | | 87 | 50 | 57% |
| Jeannette | 37 | 10 | 27% | 37 | 12 | 32% | 0 | 0 | | 0 | 0 | | 74 | 22 | 30% |
| Jefferson | 69 | 28 | 41% | 70 | 20 | 29% | 0 | 0 | | 0 | 0 | | 139 | 48 | 35% |
| Kittanning | 23 | 14 | 61% | 56 | 40 | 71% | 0 | 0 | | 0 | 0 | | 79 | 54 | 68% |
| Latrobe | 46 | 14 | 30% | 83 | 15 | 18% | 0 | 0 | | 0 | 0 | | 129 | 29 | 22% |
| Pleasant Valley | 49 | 20 | 41% | 43 | 19 | 44% | 0 | 0 | | 0 | 0 | | 92 | 39 | 42% |
| St.Mary's | 18 | 8 | 44% | 32 | 12 | 38% | 0 | 0 | | 0 | 0 | | 50 | 20 | 40% |
| State College | 39 | 14 | 36% | 57 | 12 | 21% | 0 | 0 | | 0 | 0 | | 96 | 26 | 27% |
| Washington | 26 | 12 | 46% | 46 | 12 | 26% | 0 | 0 | | 0 | 0 | | 72 | 24 | 33% |
| Waynesboro | 63 | 19 | 30% | 114 | 18 | 16% | 0 | 0 | | 0 | 0 | | 177 | 37 | 21% |
| Total AP Average | 517 | 239 | 46% | 753 | 301 | 40% | 0 | 0 | | 0 | 0 | | 1270 | 540 | 43% |
| Total Combined AP Average | 6408 | 2418 | 38% | 9542 | 3070 | 32% | 0 | 0 | | 0 | 0 | | 15950 | 5488 | 34% |

## Appendix V – 5% Circuit Calculation

DCII

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

| Index | System Average | Sample Circuit Index |
|---|---|---|
| SAIFI | 0.66 | 2.32 |
| SAIDI | 181.95 | 258.8 |
| CAIDI | 275.71 | 176.23 |
| ASAI | 0.999654 | 0.999769 |

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

| | | | |
|---|---|---|---|
| Actual SAIFI / System Average SAIFI | = 2.32 / 0.66 | = | 3.52 |
| Actual SAIDI / System Average SAIDI | = 258.8 / 181.95 | = | 1.42 |
| Actual CAIDI / System Average CAIDI | = 176.23 / 275.71 | = | 0.64 |

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

SF = 1 - (0.3 x (Actual SAIFI / Average SAIFI)) = 1 - (0.3 * 3.52) = -0.0560
SD = 1 - (0.3 x (Actual SAIDI / Average SAIDI)) = 1 - (0.3 * 1.42) = 0.5740
CD = 1 - (0.3 x (Actual CAIDI / Average CAIDI)) = 1 - (0.3 * 0.64) = 0.8080

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

(SF + SD + CD) / 3 = (-0.0560 + 0.5740 + 0.8080) / 3 = 0.4420

4) The Actual ASAI is then multiplied directly to this value to get the interruption factor which when multiplied by 100 provides the DCII.

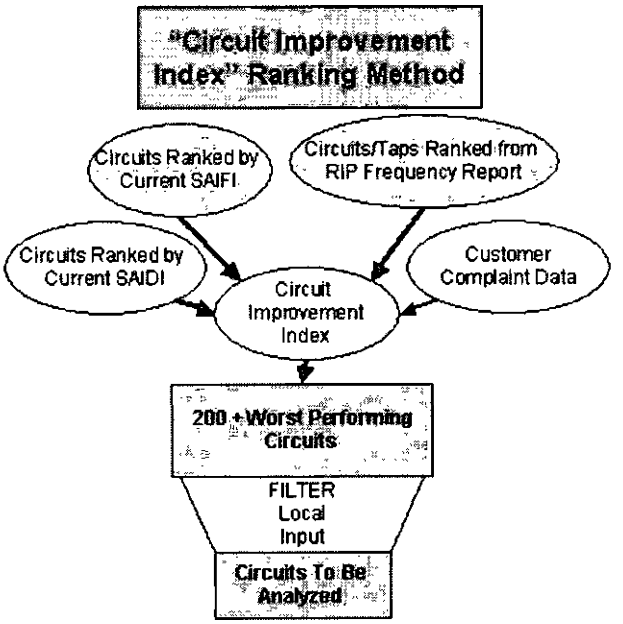
((SF + SD + CD) / 3) * ASAI x 100 = DCII = 0.4420 * 0.999769 *100 = 44.19

Circuit Improvement Index

Allegheny Power is considering a circuit improvement index that includes a number of factors such as 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 this 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 for the quarter.

Re: Allegheny Power Second Quarter 2007
Reliability Report; PAPUC



**CERTIFICATE OF SERVICE**

I certify that this 1st day of August, 2007, 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

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