

April 30, 2012

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17120

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APR 30 2012

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

L-00030101

Re: Joint 2011 Annual Reliability Report – Pennsylvania Power Company, Pennsylvania Electric Company and Metropolitan Edison Company- Pursuant to 52 Pa. Code § 57.195(a) and (b)

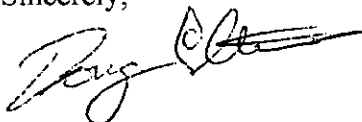
Dear Secretary Chiavetta,

Enclosed for filing on behalf of Pennsylvania Power Company, Pennsylvania Electric Company, and Metropolitan Edison Company (collectively, the “Companies”) are an original and seven (7) copies of their Joint 2011 Annual Reliability Report (“Joint Report”). Please date-stamp and return the additional copy in the enclosed postage-paid, addressed envelope for the Companies’ files.

In addition, pursuant to the Companies’ Implementation Plan filed on June 13, 2011 in response to the Commission’s Audit Report issued at Docket Nos. D-2009-2143263, D-2009-2143264 and D-2009-2143265, the Companies have enclosed as an appendix to this Joint Report a list of deficiencies and major deficiencies not corrected within their respective time frames and the reasons they have been delayed.

A copy of this Joint Report is also being copied to the Office of Consumer Advocate and the Office of Small Business Advocate.

Sincerely,



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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Joint 2011 Annual Reliability Report

**Pennsylvania Power Company,
Pennsylvania Electric Company and
Metropolitan Edison Company**

Pursuant to 52 Pa. Code § 57.195(a) and (b)

**Joint 2011 Annual Reliability Report
Pennsylvania Power Company, Pennsylvania Electric Company
and Metropolitan Edison Company
Pursuant to 52 Pa. Code Chapter § 57.195(a) and (b)**

The following Joint 2011 Report (“Report”) is submitted to the Pennsylvania Public Utility Commission (“PaPUC” or “Commission”) on behalf of Pennsylvania Power Company (“Penn Power”), Pennsylvania Electric Company (“Penelec”) and Metropolitan Edison Company (“Met-Ed”) (collectively, the “Companies”).

Section 57.195(b)(1) An overall current assessment of the state of the system reliability in the EDC's service territory including a discussion of the EDC's current programs and procedures for providing reliable electric service.

Current Assessment of the State of System Reliability

Significant benefits and improvements were realized in 2011. While this report will provide more detail into the specific accomplishments of 2011, a few of the highlights are:

Penn Power

- SAIDI was 12% better than the Commission's 12-Month Standard in 2011
- SAIFI was 23% better than the Commission's 12-Month Standard in 2011 and 8% better than Benchmark in 2011

Met-Ed

- SAIDI was 27% better than the Commission's 12-Month Standard in 2011
- SAIFI was 12% better than the Commission's 12-Month Standard in 2011
- CAIDI was 16% better than the Commission's 12-Month Standard in 2011 and equal to Benchmark in 2011

Penelec

- SAIFI was 8% better than the Commission's 12-Month Standard in 2011

Six of nine of the Companies' 2011 year-end reliability indices (SAIFI, CAIDI and SAIDI) were better than the Commission's 12-Month Standard, 1 of 9 reliability indices was better than Benchmark and 1 of 9 reliability indices was equal to Benchmark

Reliability Results

The Companies' 2011 year-end results reflect hard work, dedication and commitment exhibited by Penn Power, Penelec and Met-Ed to improve reliability performance for their customers in the Commonwealth of Pennsylvania. The table below, taken from the 4th Quarter 2011 Joint Reliability Report, shows 6 of 9 reliability indices in 2011 that were better than the Commission's 12-Month Standard (shown in green). The table also shows 1 of 9 reliability indices in 2011 that was better than Benchmark and 1 of 9 that was equal to Benchmark.

| 12-Month Rolling | Penn Power | | | Penelec | | | Met-Ed | | |
|-----------------------------------|------------|-------------------|------------------|-------------|-------------------|------------------------|------------|-------------------|-----------------|
| | Benchmark | 12-Month Standard | 12-Month Actual | Benchmark | 12-Month Standard | 12-Month Actual | Benchmark | 12-Month Standard | 12-Month Actual |
| SAIFI | 1.12 | 1.34 | 1.03 | 1.26 | 1.52 | 1.40 | 1.15 | 1.38 | 1.21 |
| CAIDI | 101 | 121 | 138 ¹ | 117 | 141 | 167² | 117 | 140 | 117 |
| SAIDI | 113 | 162 | 143 | 148 | 213 | 233² | 135 | 194 | 142 |
| Customers Served ³ | 158,752 | | | 585,723 | | | 546,873 | | |
| Number of Sustained Interruptions | 3,620 | | | 12,769 | | | 8,808 | | |
| Customers Affected | 163,657 | | | 817,910 | | | 663,664 | | |
| Customer Minutes | 22,654,493 | | | 136,607,027 | | | 77,558,419 | | |

¹ Penn Power's higher-than-normal CAIDI is directly attributed to several non-excludable storm events as well as a substation vandalism incident. The substation vandalism resulted in a thirty-one minute CAIDI impact. In addition, Penn Power has experienced forty-eight non-excludable storm events in 2011 as compared to the previous four-year average of twenty non-excludable storm events.

² Penelec's higher-than-normal CAIDI and SAIDI is directly attributed to the non-excludable event, Hurricane Irene which resulted in a forty-five minute CAIDI and seventy-four minute SAIDI impact.

³ Represents the average number of customers served during the reporting period.

In 2011, Penn Power continued its reliability strategy consisting of reviewing all outages by outage cause and weather, installing protective devices to minimize the impact and size of outages, aggressive tree trimming, and creative shift coverage to improve response time. This included additional troubleman coverage with first line supervision called out directly for all outages impacting over 100 customers to expedite restoration. During 2011, forty-three circuits were field assessed to look for aging infrastructure and broken equipment such as crossarms, braces and poles, of which priority findings were addressed expeditiously. This review consisted of manual inspections with additional infrared inspections on the nine worst performing circuits. In its resolve to improve reliability by implementing the initiatives noted above, Penn Power remains committed to providing safe and reliable service to their customers.

In 2011, Met-Ed continued to implement a series of reliability improvement initiatives to "storm-proof" or "harden" the three-phase distribution backbone. Examples of these SAIFI initiatives include aggressive tree trimming and circuit-condition assessments. To limit the scope of an outage, additional protective equipment such as fuses and reclosers were systematically added. Additional planned reliability improvements include the application of distribution automation to operate the system and additional protective equipment such as fuses and reclosers. These initiatives coupled with targeted substation and distribution asset condition assessments, targeted corrective maintenance, aggressive tree trimming, and application of technology, will further improve reliability for Met-Ed customers.

In 2011, Penelec completed the main line protection program initiated in 2008. This program sought to improve reliability by ensuring that circuits carrying more than 300 customers were equipped with a mid-line recloser with coordinating fuse protection on every mainline tap. Furthermore, full circuit protection coordination reviews that began in 2009 continued. Penelec engineering will continue this practice in 2012, examining in excess of 100 of the worst performing circuits from a SAIDI perspective. In addition to the mainline protection studies, examination of fuse protected single phase spurs will also determine whether any protection deficiencies exist. This will ultimately result in improved SAIFI as well as faster troubleshooting times.

Because Penelec has consistently seen cutouts as the leading cause of equipment failures since 2005, the condition replacement program was developed in 2009. The goals of this plan are to replace mainline porcelain cutouts with polymer cutouts, install polymer cutouts on completely self-protected transformers and repair condition items identified during circuit inspections. This program is again funded in 2012 as part of the overall Penelec reliability strategy.

The preliminary YTD March 2012 reliability indices (shown in green) are listed in the table below:

| 12-Month Rolling | Penn Power | | | Penelec | | | Met-Ed | | |
|------------------|------------|-------------------|-----------------|-----------|-------------------|-----------------|-----------|-------------------|-----------------|
| | Benchmark | 12-Month Standard | 12-Month Actual | Benchmark | 12-Month Standard | 12-Month Actual | Benchmark | 12-Month Standard | 12-Month Actual |
| SAIFI | 1.12 | 1.34 | 1.06 | 1.26 | 1.52 | 1.30 | 1.15 | 1.38 | 1.16 |
| CAIDI | 101 | 121 | 135 | 117 | 141 | 174 | 117 | 140 | 117 |
| SAIDI | 113 | 162 | 143 | 148 | 213 | 226 | 135 | 194 | 136 |

Six of 9 of the Companies' reliability indices are better than the Commission's 12-Month Standard, 1 of 9 indices is better than Benchmark and 1 of 9 indices met Benchmark through month-end March 2012. The Companies are confident that their 2012 plans will continue to have a positive impact on reliability.

A successful reliability plan requires a substantial commitment and investment in resources, i.e., people, dollars and time. The Companies have invested in such areas as new technologies, refurbishment or replacement of equipment, and rigorous inspection and maintenance activities such as pole inspections, thermal scans, and vegetation management. The Companies are investing to achieve the ultimate goal of providing the consistently reliable electric service that our customers expect and deserve.

Section 57.195(b)(2) A description of each major event that occurred during the year being reported on, including the time and duration of the event, the number of customers affected, the cause of the event and any modified procedures adopted to avoid or minimize the impact of similar events in the future.

Major Events

A major event is determined to occur where 10% or more of Met-Ed, Penn Power or Penelec's customers are out of service for five minutes or greater as defined in 52 Pa. Code 57.192. This 2011 Report is based on the exclusion of major events on an individual operating company basis and is consistent with the major events reported in each of the 2011 quarterly reports. The major events for 2011 are as follows:

| FirstEnergy Company | Customers Affected | Major Event | | Description | Commission Approval |
|---------------------|--------------------|-----------------|----------------------------------|---|----------------------------|
| Met-Ed | 56,679 | Duration | 2 days 12 hours 55 minutes | Winter storm with freezing rain and high winds | Approved April 26, 2011 |
| | | Start Date/Time | February 2, 2011 at 1:05am | | |
| | | End Date/Time | February 4, 2011 at 2:00pm | | |
| Penn Power | 22,009 | Duration | 20 hours 6 minutes | High winds | Approved May 18, 2011 |
| | | Start Date/Time | April 17, 2011 11:54am | | |
| | | End Date/Time | April 18, 2011 8:05am | | |
| Penn Power | 42,218 | Duration | 11 hours 24 minutes | Transmission conductor full tension splice failure | Approved July 26, 2011 |
| | | Start Date/Time | May 24, 2011 7:19pm | | |
| | | End Date/Time | May 25, 2011 6:43am | | |
| Penelec | 74,725 | Duration | 6 days 6 hours 8 minutes | High winds with heavy rain and severe thunderstorms | Approved July 26, 2011 |
| | | Start Date/Time | May 25, 2011 8:52pm | | |
| | | End Date/Time | June 1, 2011 3:00am | | |

| FirstEnergy Company | Customers Affected | Major Event | | Description | Commission Approval |
|---------------------|--------------------|-----------------|--------------------------------|----------------------|------------------------------|
| Met-Ed | 224,735 | Duration | 8 days 16 hours, 1 minute | Hurricane Irene | Approved October 12, 2011 |
| | | Start Date/Time | August 27, 2011 10:01pm | | |
| | | End Date/Time | September 5, 2011 2:02pm | | |
| Met-Ed | 56,278 | Duration | 7 days 11 hours, 21 minutes | Tropical Storm Lee | Approved October 22, 2011 |
| | | Start Date/Time | September 5, 2011 9:06pm | | |
| | | End Date/Time | September 13, 2011 11:45am | | |
| Penelec | 13,927 | Duration | 8 days 8 hours, 43 minutes | Tropical Storm Lee | Approved October 22, 2011 |
| | | Start Date/Time | September 7, 2011 11:17am | | |
| | | End Date/Time | September 14, 2011 6:00pm | | |
| Met-Ed | 277,109 | Duration | 9 days 11 hours | Early fall snowstorm | Approved February 15 2012 |
| | | Start Date/Time | October 29, 2011 8:59 am | | |
| | | End Date/Time | November 7, 2011 7:59 pm | | |

Section 57.195(b)(3) A table showing the actual values of each of the reliability indices (SAIFI, CAIDI, SAIDI, and if available, MAIFI) for the EDC's service territory for each of the preceding 3 calendar years. The report shall include the data used in calculating the indices, namely the average number of customers served, the number of sustained customer minutes interruptions, the number of customers affected and the minutes of interruption. If MAIFI values are provided, the number of customer momentary interruptions shall also be reported.

Reliability Indices

For the purposes of this Report, all reliability reporting is based upon the Commission's definitions for "momentary outages" and "major events" (outage data excluded as a result of major events).

| Historic 12-Month Rolling Reliability Indices ⁴ | | | | |
|--|-------------------------------|------------|------------|-------------|
| | Index | 2009 | 2010 | 2011 |
| Penn Power | SAIFI | 0.75 | 1.01 | 1.03 |
| | CAIDI | 116 | 95 | 138 |
| | SAIDI | 87 | 95 | 143 |
| | MAIFI | 1.97 | 1.96 | 1.39 |
| | Customer Minutes | 13,721,657 | 15,086,521 | 22,654,493 |
| | Customers Affected | 118,277 | 159,615 | 163,657 |
| | Minutes of Interruption | 549,249 | 639,323 | 858,255 |
| | Customers Served ⁵ | 157,007 | 158,102 | 158,752 |
| Penelec | SAIFI | 1.22 | 1.31 | 1.40 |
| | CAIDI | 117 | 124 | 167 |
| | SAIDI | 143 | 162 | 233 |
| | MAIFI | 5.42 | 4.24 | 2.48 |
| | Customer Minutes | 83,155,989 | 94,759,008 | 136,607,027 |
| | Customers Affected | 711,565 | 763,846 | 817,910 |
| | Minutes of Interruption | 2,192,884 | 2,432,603 | 3,791,204 |
| | Customers Served ⁵ | 580,907 | 583,914 | 585,723 |
| Met-Ed | SAIFI | 1.21 | 1.51 | 1.21 |
| | CAIDI | 111 | 120 | 117 |
| | SAIDI | 134 | 181 | 142 |
| | MAIFI | 4.43 | 3.90 | 3.06 |
| | Customer Minutes | 73,001,005 | 98,740,558 | 77,558,419 |
| | Customers Affected | 660,319 | 823,797 | 663,664 |
| | Minutes of Interruption | 1,964,675 | 2,870,729 | 2,278,029 |
| | Customers Served ⁵ | 544,056 | 546,740 | 546,873 |

⁴ MAIFI values are not available

⁵ Represents the average number of customers served during the reporting period

| 36-Month Rolling Year-End 2011 | Penn Power | | Penelec | | Met-Ed | |
|--------------------------------------|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|
| | 36-Month Standard | 36-Month Actual | 36-Month Standard | 36-Month Actual | 36-Month Standard | 36-Month Actual |
| SAIFI | 1.23 | 0.93 | 1.39 | 1.31 | 1.27 | 1.31 |
| CAIDI | 111 | 116 | 129 | 136 | 129 | 116 |
| SAIDI | 136 | 109 | 179 | 180 | 163 | 152 |

Section 57.195(b)(4) A breakdown and analysis of outage causes during the year being reported on, including the number and percentage of service outages, the number of customers interrupted, 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.

Outages by Cause

Outages by Cause – Penn Power

| Outages by Cause | | | | |
|--------------------------------------|---------------------|---|-----------------------|------------------------------------|
| 4rd Quarter 2011 12-Month Rolling | Penn Power | | | |
| Cause | Customer Minutes | Number of Sustained Interruptions | Customers Affected | % Based on Number of Outages |
| LIGHTNING | 3,867,031 | 866 | 29,138 | 23.92% |
| TREES/NOT PREVENTABLE | 7,700,928 | 760 | 38346 | 20.99% |
| ANIMAL | 1,003,446 | 421 | 12,783 | 11.63% |
| EQUIPMENT FAILURE | 1,762,119 | 372 | 29888 | 10.28% |
| LINE FAILURE | 2,987,564 | 363 | 17,939 | 10.03% |
| BIRD | 274,056 | 272 | 3,945 | 7.51% |
| UNKNOWN | 608,669 | 111 | 7103 | 3.07% |
| OVERLOAD | 314,559 | 96 | 3,162 | 2.65% |
| VEHICLE | 776,468 | 86 | 6,767 | 2.38% |
| PREVIOUS LIGHTNING | 57,724 | 85 | 582 | 2.35% |
| FORCED OUTAGE | 171,431 | 71 | 5,150 | 1.96% |
| HUMAN ERROR -NON-COMPANY | 156,559 | 37 | 2,746 | 1.02% |
| TREES/PREVENTABLE | 65,851 | 30 | 391 | 0.83% |
| HUMAN ERROR - COMPANY | 50,535 | 13 | 663 | 0.36% |
| CUSTOMER EQUIPMENT | 3,287 | 9 | 48 | 0.25% |
| OBJECT CONTACT WITH LINE | 16,433 | 9 | 151 | 0.25% |
| UG DIG-UP | 6,998 | 6 | 39 | 0.17% |
| VANDALISM | 2,814,964 | 5 | 4,335 | 0.14% |
| FIRE | 12,036 | 2 | 467 | 0.06% |
| ICE | 1,510 | 2 | 4 | 0.06% |
| OTHER ELECTRIC UTILITY | 1,724 | 2 | 8 | 0.06% |
| CONTAMINATION | 58 | 1 | 1 | 0.03% |
| WIND | 543 | 1 | 1 | 0.03% |
| TOTAL | 22,654,493 | 3,620 | 163,657 | 100.00% |

Proposed Solutions – Penn Power

Lightning

The number of lightning-caused outages is mitigated through Penn Power's reliability improvement strategy. This includes the inspection and maintenance practices such as circuit inspections and annual main feed inspections. These inspections can locate blown lightning arresters, broken grounds, and other condition items which could lead to higher lightning-caused outages. Substations also provide lightning protection through equipment such as line arresters and grounding. These items are maintained by the substation group based on substation practices. Distribution protection coordination reviews allow for a fewer number of customers affected and quicker isolation of the affected circuit sections. In addition, Penn Power conducts periodic reviews of multi-operation devices to identify causes and trends and will engineer solutions to reduce the frequency of the outages.

Trees Non-Preventable

Forestry Services reviews the "Trees Non-Preventable" outages to see if there has been a high frequency of occurrences on the circuit. A patrol of the circuit is conducted to identify trees that need to be trimmed or removed to avoid future outages. In addition, line and forestry personnel patrol for Danger/Priority trees as part of their daily work routine. The Danger/Priority Tree program identifies trees located outside the boundary of the right-of-way that present a hazard to power lines. Under this program all circuits that have had "Trees Non-Preventable" caused outages are prioritized based on customer outage minutes. A patrol of the three-phase backbone of each circuit is performed and Forestry Services works with private property owners to remove any potentially dangerous tree conditions. Also, additional assessments on eleven of Penn Power's circuits with significant tree-caused outages were completed through May 2011.

Animal

Animal guards are installed on equipment where high frequencies of animal-related outages are experienced. When possible, animal guards are installed at the time service is restored for the outages caused by animals. In addition, Penn Power installs animal guards on new overhead transformers.

Outages by Cause – Penelec

| Outages by Cause | | | | |
|--------------------------------------|---------------------|---|-----------------------|------------------------------------|
| 4th Quarter 2011 12-Month Rolling | Penelec | | | |
| Cause | Customer Minutes | Number of Sustained Interruptions | Customers Affected | % Based on Number of Outages |
| EQUIPMENT FAILURE | 38,111,369 | 3,822 | 311,950 | 29.93% |
| TREES/NOT PREVENTABLE | 55,758,431 | 2,041 | 139,447 | 15.98% |
| UNKNOWN | 9,992,858 | 1,878 | 80,573 | 14.71% |
| LINE FAILURE | 14,144,404 | 1,088 | 125,510 | 8.52% |
| ANIMAL | 1,379,220 | 1,059 | 15,822 | 8.29% |
| LIGHTNING | 3,530,487 | 694 | 37,456 | 5.44% |
| FORCED OUTAGE | 2,968,424 | 660 | 32,970 | 5.17% |
| VEHICLE | 4,527,267 | 361 | 29,842 | 2.83% |
| BIRD | 405,865 | 279 | 4,936 | 2.18% |
| OVERLOAD | 1,582,038 | 201 | 12,052 | 1.57% |
| HUMAN ERROR - COMPANY | 49,047 | 108 | 1,914 | 0.85% |
| OTHER ELECTRIC UTILITY | 877,486 | 100 | 2,249 | 0.78% |
| HUMAN ERROR - NON-COMPANY | 1,184,534 | 98 | 8,174 | 0.77% |
| ICE | 628,643 | 82 | 1,694 | 0.64% |
| PREVIOUS LIGHTNING | 191,953 | 78 | 4,813 | 0.61% |
| UG DIG-UP | 144,203 | 68 | 731 | 0.53% |
| OBJECT CONTACT WITH LINE | 360,108 | 40 | 2,567 | 0.31% |
| TREES/PREVENTABLE | 82,319 | 39 | 639 | 0.31% |
| CUSTOMER EQUIPMENT | 90,498 | 21 | 672 | 0.16% |
| VANDALISM | 357,629 | 17 | 1,995 | 0.13% |
| FIRE | 109,312 | 16 | 197 | 0.13% |
| OTHER UTILITY-NON ELEC | 107,909 | 9 | 1,195 | 0.07% |
| CONTAMINATION | 4,499 | 7 | 57 | 0.05% |
| CALL ERROR | 0 | 1 | 0 | 0.01% |
| SWITCHING ERROR | 17,004 | 1 | 436 | 0.01% |
| WIND | 1,520 | 1 | 19 | 0.01% |
| TOTAL | 136,607,027 | 12,769 | 817,910 | 100.00% |

Proposed Solutions – Penelec

Equipment Failure

Porcelain cutout failures represent approximately one-third of the equipment failure outages in Penelec. To address this cause, Penelec has been replacing porcelain cutouts with polymer cutouts on the main feed three-phase backbone of circuits since 2009.

In addition, inspection and maintenance practices, such as overhead circuit inspections, identify and correct potential equipment-related problems before they cause an outage. Penelec's entire main feed three-phase backbone system has been inspected at least once since 2008 and is currently on a five-year cycle of inspections. Off-cycle inspections are performed based on circuit performance and may include infrared scanning to assist in identification of potential equipment problems.

To reduce the impact of outages, distribution circuit protection coordination reviews and the enhanced circuit protection schemes that result provide isolation of equipment failures.

To limit the number of *multiple* outages at the same location, Engineering Services continually monitors and investigates devices experiencing three or more outages in sixty days to identify causes and trends of equipment failures and other outages.

Trees Non-Preventable

Forestry Services reviews the "Trees Non-Preventable" outages to see if there has been a high frequency of occurrences on the circuit. A patrol of the circuit is conducted to identify dead or diseased trees that need to be trimmed or removed to avoid future outages. In addition, line and forestry personnel patrol for Danger/Priority trees as part of their daily work routine. The Danger/Priority Tree inspections identify off right-of-way trees that present a hazard to power lines. Circuits are then prioritized by customer minutes due to "Trees Non-Preventable" outages. A patrol of the entire circuit is performed and Forestry Services works with private property owners to remove any potentially dangerous tree conditions. This practice has been adopted as part of the Company's normal tree trimming maintenance program.

Unknown

An outage-by-cause analysis is one of the tools used to analyze and develop circuit and system reliability improvement plans. If the troubleshooter cannot accurately identify the cause of an outage, that outage is coded with an unknown cause. To limit the number of unknown outages and to identify the outage cause, troubleshooters are directed to continue to patrol a circuit, even after service has been restored, as long as those patrols will not interfere with restoration of other customers. Significant unknown outages are reviewed by reliability engineering, with post outage circuit inspections being completed as needed by reliability inspectors.

Outages by Cause – Met-Ed

| Outages by Cause | | | | |
|--------------------------------------|---------------------|---|-----------------------|------------------------------------|
| 4th Quarter 2011 12-Month Rolling | Met-Ed | | | |
| Cause | Customer Minutes | Number of Sustained Interruptions | Customers Affected | % Based on Number of Outages |
| EQUIPMENT FAILURE | 15,192,610 | 2367 | 148,623 | 26.87% |
| TREES/NOT PREVENTABLE | 26,822,080 | 1764 | 159,871 | 20.03% |
| ANIMAL | 2,962,276 | 1030 | 33616 | 11.69% |
| UNKNOWN | 4,183,606 | 902 | 61,324 | 10.24% |
| LINE FAILURE | 7,466,060 | 730 | 43,449 | 8.29% |
| LIGHTNING | 4,480,236 | 624 | 39,193 | 7.08% |
| FORCED OUTAGE | 2,924,675 | 357 | 56,860 | 4.05% |
| VEHICLE | 6,208,642 | 298 | 57,037 | 3.38% |
| BIRD | 353,919 | 185 | 2,325 | 2.10% |
| TREES/PREVENTABLE | 906,418 | 173 | 5,122 | 1.96% |
| HUMAN ERROR -NON-COMPANY | 559,242 | 71 | 5,816 | 0.81% |
| OVERLOAD | 454,985 | 65 | 5,569 | 0.74% |
| WIND | 3,412,334 | 54 | 19,345 | 0.61% |
| PREVIOUS LIGHTNING | 39,000 | 51 | 222 | 0.58% |
| HUMAN ERROR - COMPANY | 237,495 | 34 | 10,316 | 0.39% |
| UG DIG-UP | 142,352 | 25 | 1,942 | 0.28% |
| OBJECT CONTACT WITH LINE | 480,187 | 23 | 5,540 | 0.26% |
| CUSTOMER EQUIPMENT | 52,118 | 15 | 1,641 | 0.17% |
| VANDALISM | 356,675 | 15 | 3,667 | 0.17% |
| OTHER ELECTRIC UTILITY | 299,878 | 9 | 2,082 | 0.10% |
| FIRE | 16,573 | 8 | 66 | 0.09% |
| CONTAMINATION | 1,875 | 3 | 5 | 0.03% |
| ICE | 1,123 | 3 | 13 | 0.03% |
| OTHER UTILITY-NON ELEC | 4,060 | 2 | 20 | 0.02% |
| TOTAL | 77,558,419 | 8,808 | 663,664 | 100.00% |

Proposed Solutions – Met-Ed

Equipment Failure

The number of equipment failures is mitigated by way of inspection and maintenance practices, such as circuit inspections and others. Further, distribution circuit protection coordination reviews and the enhanced circuit protection schemes that result will provide isolation of equipment failures and lessen the impact of outages to a smaller number of customers. In addition, the Engineering Services periodically conducts a multi-operation device review to identify causes and trends of equipment failures and other outage causes. Engineering then plans accordingly to repair or replace facilities.

Trees Non-Preventable

Forestry Services reviews areas where “Trees Non-Preventable” outages occur to see if there has been a high frequency of occurrence. A patrol of the circuit is conducted to identify trees that need to be trimmed or removed to avoid future outages. In addition, line and forestry personnel patrol for Danger/Priority trees as part of their daily work routine. The Danger/Priority Tree program identifies off right-of-way trees that present a hazard to power lines.

Under the Danger/Priority Tree program, circuits identified by Engineering Services that have had “Trees Non-Preventable” caused outages are prioritized based on customer outage minutes. A patrol of the three-phase backbone of each circuit is performed and foresters identify any potentially dangerous tree conditions. If the tree cannot be removed, overhang at the location is removed.

Animal

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

Section 57.195(b)(5) A list of the major remedial efforts taken to date and planned for circuits that have been on the worst performing 5% of circuits list for a year or more.

Worst Performing Circuits – Remedial Action

Penn Power, Penelec and Met-Ed's Remedial Actions for Worst Performing Circuits are provided in Attachment A of this report.

Section 57.195(b)(6) A comparison of established transmission and distribution inspections and maintenance goals/objectives versus actual results achieved during the year being reported on. Explanations of any variances shall be included.

T&D Inspection and Maintenance Programs

| Inspection and Maintenance 2011 | | Penn Power ^a | | Penelec | | Met-Ed | |
|------------------------------------|--------------------------------------|---|-----------|--------------------|-----------|------------------|--------------------|
| | | Planned | Completed | Planned | Completed | Planned | Completed |
| Forestry | Transmission (Miles) | 30.39 | 30.39 | 185.35 | 185.35 | 78.58 | 78.57 ^b |
| | Distribution (Miles) | 1,136 | 1,136 | 3,729 | 3,812 | 2,874 | 2,874 |
| Transmission | Aerial Patrols | 2 | 2 | 2 | 2 | 2 | 2 |
| | Groundline ^c | 0 | 0 | 1,301 | 1,668 | 0 | 0 |
| Substation | General Inspections | 960 | 960 | 4,992 ^d | 4,992 | 2,616 | 2,616 |
| | Transformers | 125 | 125 | 754 ^e | 754 | 337 | 337 |
| | Breakers | 36 | 36 | 426 ^d | 426 | 239 ^d | 239 |
| | Relay Schemes | 85 ^d | 85 | 723 ^d | 723 | 295 ^d | 295 |
| Distribution | Capacitors | 995 | 998 | 8,654 | 8,654 | 4,621 | 4,627 |
| | Poles | 10,600 | 10,718 | 41,111 | 49,624 | 28,433 | 31,428 |
| | | Planned | Completed | Planned | Completed | Planned | Completed |
| | Reclosers | 748 | 748 | 2,563 ^g | 2,563 | 901 | 901 |
| | Radio-Controlled Switches (2 / year) | Penn Power has no radio controlled switches | | 2,199 ^h | 2,199 | 98 ⁱ | 98 |

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

⁶ One open refusal in legal.

⁷ Transmission groundline pole inspections:
 - Penn Power includes 69kV and 138 kV
 - Penelec includes 115kV
 - Met-Ed includes 230, 115 and 69kV

⁸ Planned number was 4,956; however, three substations changed classifications from customer owned to company owned and were added to plan.

⁹ Planned number revised due to equipment that was removed or no longer in service, or work that should have not been included in the original work plan.

¹⁰ Planned number was 2,478; however, 85 additional units were inspected than originally planned.

¹¹ Penelec - Planned number was 2,164 however, 35 additional units were inspected than originally planned.

Met-Ed - Planned number was 92 inspections (46 switches); 3 new switches added for a total of 98 inspections.

Section 57.195(b)(7) A comparison of budgeted versus actual transmission and distribution operation and maintenance expenses for the year being reported on in total and detailed by the EDC's own functional account code of FERC account code as available. Explanations of any variances shall be included.

Budgeted vs. Actual T&D Operation & Maintenance Expenditures

| T&D O&M (YTD December 2011) | | | | | |
|--|------------------------|--------------------|-------------------|-------------------|--------------------------|
| Company | PUC Category | YTD Actuals | YTD Budget | Variance % | Notes^a |
| Penn Power | Corrective Maintenance | 928,177 | 368,409 | 152% | 1 |
| | Preventive Maintenance | 510,188 | 0 | 100% | 2 |
| | Storms | 809,850 | 1,195,123 | -32% | 3 |
| | Vegetation Management | 391,149 | 884,234 | -56% | 4 |
| | Miscellaneous | 3,996,220 | 5,186,713 | -23% | 5 |
| | Operations | 1,612,126 | 1,402,946 | 15% | 6 |
| Penn Power Total | | 8,247,710 | 9,037,425 | -9% | |
| Penelec | Corrective Maintenance | 2,906,647 | 3,695,388 | -21% | 7 |
| | Preventive Maintenance | 5,828,075 | 5,032,902 | 16% | 8 |
| | Storms | 6,199,131 | 3,866,263 | 60% | 9 |
| | Vegetation Management | 5,363,532 | 4,986,170 | 8% | |
| | Miscellaneous | 12,356,925 | 13,844,151 | -11% | 10 |
| | Operations | 15,060,461 | 16,212,823 | -7% | |
| Penelec Total | | 47,714,771 | 47,637,697 | 0% | |
| Met-Ed | Corrective Maintenance | 2,813,714 | 2,656,243 | 6% | |
| | Preventive Maintenance | 2,516,559 | 3,733,258 | -33% | 11 |
| | Storms | 25,202,972 | 8,796,475 | 187% | 12 |
| | Vegetation Management | 4,022,983 | 4,784,291 | -16% | 13 |
| | Miscellaneous | 10,982,631 | 9,672,868 | 14% | 14 |
| | Operations | 12,162,344 | 11,637,799 | 5% | |
| Met-Ed Total | | 57,701,203 | 41,280,934 | 40% | |
| Grand Total | | 113,663,684 | 97,956,056 | | |

^a Variance Explanations (Variances 10% or greater):

- 1 Greater than anticipated inspection and maintenance and substation maintenance work.
- 2 Higher substation and transformer preventative work than budgeted.
- 3 Lower storm maintenance activities.
- 4 Less vegetation management maintenance costs than originally anticipated.
- 5 Increased capital work activities.
- 6 Higher substation expenses than anticipated.
- 7 Lower substation maintenance partially offset by higher interrupt and transformer maintenance.
- 8 Higher line inspection work than anticipated.
- 9 More major storm activity than anticipated, driven by Hurricane Irene and Tropical Storm Lee.
- 10 Increased capital work activities.
- 11 Lower substation work than expected.
- 12 More major storm activity than anticipated, driven by Hurricane Irene, Tropical Storm Lee and the October Snow Storm.
- 13 Less vegetation management maintenance costs than originally anticipated.
- 14 More overhead line work completed than anticipated.

Section 57.195(b)(8) A comparison of budgeted versus actual transmission and distribution operation and maintenance capital expenses for the year being reported on in total and detailed by the EDC's own functional account code or FERC account code as available. Explanations of any variances 10% or greater shall be included.

Budgeted vs. Actual T&D Capital Expenditures

| T&D Capital (YTD December 2011) | | | | | |
|---------------------------------|-----------------------|--------------------|--------------------|------------|--------------------|
| Company | PUC Category | YTD Actuals | YTD Budget | Variance % | Notes ^a |
| Penn Power | New Business | 5,493,433 | 2,860,500 | 92% | 1 |
| | Reliability | 4,750,843 | 8,884,642 | -47% | 2 |
| | Capacity | 1,059,114 | 516,666 | 105% | 3 |
| | Miscellaneous | 960,828 | 1,302,047 | -26% | 4 |
| | Forced | 7,875,676 | 4,805,563 | 64% | 5 |
| | Vegetation Management | 4,793,955 | 4,867,980 | -2% | |
| Penn-Power Total | | 24,933,849 | 23,237,398 | 7% | |
| Penelec | New Business | 17,691,020 | 19,321,082 | -8% | |
| | Reliability | 30,372,517 | 39,198,455 | -23% | 6 |
| | Capacity | 19,006,077 | 18,435,969 | 3% | |
| | Miscellaneous | 1,194,320 | 17,564,055 | -93% | 7 |
| | Forced | 42,179,466 | 28,527,644 | 48% | 8 |
| | Vegetation Management | 16,186,755 | 15,669,629 | 3% | |
| Penelec Total | | 126,630,165 | 138,716,834 | -9% | |
| Met-Ed | New Business | 16,009,242 | 21,454,639 | -25% | 9 |
| | Reliability | 18,461,983 | 25,848,587 | -29% | 10 |
| | Capacity | 8,329,457 | 7,944,344 | 5% | |
| | Miscellaneous | (7,501,306) | 9,552,347 | -179% | 11 |
| | Forced | 55,172,506 | 21,518,803 | 156% | 12 |
| | Vegetation Management | 17,013,155 | 15,756,410 | 8% | |
| Met-Ed Total | | 107,485,037 | 102,075,130 | 5% | |
| Grand Total | | 259,049,041 | 264,029,362 | | |

^a Variance Explanations (Variances of 10% or greater):

- 1 Higher Residential and Commercial New Business work than anticipated.
- 2 Less Fix It Now contingency work than originally planned.
- 3 Due to a YTD Capital Related Payroll Overhead Adjustment.
- 4 Adjustments to construction overheads which are reflected in the "Misc" PaPUC Category.
- 5 Greater Power On follow up work and higher than anticipated storm activity.
- 6 Actuals captured in Forced PUC category and budgeted under Reliability category.
- 7 Adjustments to construction overheads which are reflected in the "Misc" PaPUC Category.
- 8 Actuals captured in Forced PUC category and budgeted under Reliability category.
- 9 Lower New Commercial Customer and Commercial Upgrade work than planned.
- 10 Lower repair work on overhead facilities than anticipated.
- 11 Adjustments to construction overheads which are reflected in the "Misc" PaPUC Category.
- 12 Higher Storm costs than anticipated driven by Hurricane Irene, Tropical Storm Lee and the October snow storm.

Section 57.195(b)(9) Quantified transmission and distribution inspection and maintenance goals/objectives for the current calendar year detailed by system area (that is, transmission, substation and distribution).

T&D Inspection & Maintenance Programs – 2012 Goals / Objectives

| T&D Inspection & Maintenance Programs - 2012 | | | |
|---|-------------------|----------------|---------------|
| Program/Project | Penn Power | Penelec | Met-Ed |
| Forestry | | | |
| Transmission | 69.90 Miles | 677.85 Miles | 343.90 Miles |
| Distribution | 1,115 Miles | 4,868 Miles | 3,088 Miles |
| Transmission | | | |
| Aerial Patrols | 2 | 2 | 2 |
| Groundline (Poles) | 0 | 2,658 | 0 |
| Substation | | | |
| General Inspections | 960 | 5,004 | 2,628 |
| Transformers | 124 | 787 | 349 |
| Breakers | 75 | 696 | 227 |
| Relay Schemes | 110 | 477 | 445 |
| Distribution | | | |
| Capacitors | 1,000 | 8,676 | 4,668 |
| Poles | 10,500 | 41,111 | 28,433 |
| Reclosers | 760 | 2,577 | 976 |
| Radio-Controlled Switches (2 / year) | Not Applicable | 2,244 | 118 |

Section 57.195(b)(10) Budgeted transmission and distribution operation and maintenance expenses for the current year in total and detailed by the EDC's own functional account code or FERC account code as available.

2012 T&D O&M Budget¹²

| T&D O&M - Annual 2012 | | |
|---|--|----------------------|
| Company | FERC | Annual Budget |
| Penn Power | Operation Supervision and Engineering | |
| | Load Dispatching | 89,239 |
| | Station Expenses | |
| | Overhead Lines Expenses | |
| | Transmission of Electricity by Others | 1,899,644 |
| | Miscellaneous Transmission Expenses | 8,223 |
| | Rents | - |
| | Maintenance Supervision and Engineering | 833 |
| | Maintenance of Structures | 74,221 |
| | Maintenance of Station Equipment | 60,867 |
| | Maintenance of Overhead Lines | 29,187 |
| | Maintenance of Miscellaneous Transmission Plant | 7 |
| | Market Administration, Monitoring & Compliance Sys | 69,041 |
| | Operation Supervision and Engineering | - |
| | Load Dispatching | |
| | Station Expenses | 35,541 |
| | Overhead Line Expenses | - |
| | Underground Line Expenses | 330,007 |
| | Meter Expenses | 66,297 |
| | Customer Installations Expenses | |
| | Miscellaneous Dx Expenses | 268,821 |
| | Rents | 317,191 |
| | Maintenance Supervision and Engineering | (8,109) |
| | Maintenance of Structures | |
| | Maintenance of Station Equipment | 362,451 |
| | Maintenance of Overhead Lines | 5,041,000 |
| | Maintenance of Underground Lines | - |
| | Maint. Line Transformer | |
| | Maintenance of Street Lighting and Signal Systems | 286,350 |
| | Maintenance of Meters | 706,228 |
| Maintenance of Miscellaneous Distribution Plant | 410,553 | |
| Penn.Power Total | | 10,047,590 |

¹² In 2012, FirstEnergy adopted a modified budget reporting format where O&M is based on T&D FERC accounts 560-598. Note: Budget subject to change.

| T&D O&M - Annual 2012 | | |
|---|--|----------------------|
| Company | FERC | Annual Budget |
| Penelec | Operation Supervision and Engineering | 32,351 |
| | Load Dispatching | 1,017,731 |
| | Station Expenses | - |
| | Station Expenses | |
| | Overhead Lines Expenses | 286,854 |
| | Transmission of Electricity by Others | 3,414,084 |
| | Miscellaneous Transmission Expenses | 571,571 |
| | Rents | 2,561,075 |
| | Maintenance Supervision and Engineering | (1,963) |
| | Maintenance of Structures | 406,381 |
| | Maintenance of Station Equipment | 475,943 |
| | Maintenance of Overhead Lines | 7,182,351 |
| | Maintenance of Miscellaneous Transmission Plant | - |
| | Maintenance of Miscellaneous Transmission Plant | |
| | Market Administration, Monitoring & Compliance Svs | 59,220 |
| | Operation Supervision and Engineering | 498,361 |
| | Load Dispatching | 720,058 |
| | Station Expenses | - |
| | Station Expenses | |
| | Overhead Line Expenses | 72,521 |
| | Underground Line Expenses | - |
| | Underground Line Expenses | |
| | Meter Expenses | 681,777 |
| | Customer Installations Expenses | |
| | Miscellaneous Dx Expenses | 3,357,893 |
| | Rents | 1,616,266 |
| | Maintenance Supervision and Engineering | (10,910) |
| | Maintenance of Structures | |
| | Maintenance of Station Equipment | 6,600,832 |
| | Maintenance of Overhead Lines | 13,288,148 |
| | Maintenance of Underground Lines | 729,250 |
| | Maint. Line Transformer | |
| | Maintenance of Street Lighting and Signal Systems | 1,919,895 |
| Maintenance of Meters | 2,125,364 | |
| Maintenance of Miscellaneous Distribution Plant | 2,323,975 | |
| Penelec Total | | 49,929,027 |

| T&D O&M - Annual-2012 | | |
|--------------------------------------|--|----------------------|
| Company | FERC | Annual Budget |
| Met-Ed | Operation Supervision and Engineering | 27,031 |
| | Load Dispatching | 2,522,469 |
| | Station Expenses | - |
| | Station Expenses | - |
| | Overhead Lines Expenses | 18,968 |
| | Transmission of Electricity by Others | 5,831,266 |
| | Miscellaneous Transmission Expenses | 799,486 |
| | Rents | 292,248 |
| | Maintenance Supervision and Engineering | (8,873) |
| | Maintenance of Structures | 459,423 |
| | Maintenance of Station Equipment | 1,804,932 |
| | Maintenance of Overhead Lines | 3,837,339 |
| | Maintenance of Miscellaneous Transmission Plant | - |
| | Maintenance of Underground Lines | - |
| | Maintenance of Miscellaneous Transmission Plant | - |
| | Market Administration, Monitoring & Compliance Svs | 85,180 |
| | Operation Supervision and Engineering | 306,496 |
| | Load Dispatching | 493,467 |
| | Station Expenses | 907,920 |
| | Overhead Line Expenses | 317,761 |
| | Underground Line Expenses | 615,761 |
| | Meter Expenses | 537,220 |
| | Customer Installations Expenses | - |
| | Miscellaneous Dx Expenses | 4,019,105 |
| | Rents | 513,036 |
| | Maintenance Supervision and Engineering | (13,732) |
| | Maintenance of Structures | 9,849 |
| | Maintenance of Station Equipment | 2,353,814 |
| | Maintenance of Overhead Lines | 15,014,077 |
| | Maintenance of Underground Lines | 719,121 |
| | Maint. Line Transformer | - |
| | Maintenance of Street Lighting and Signal Systems | 708,242 |
| | Maintenance of Meters | 1,997,646 |
| | Maintenance of Miscellaneous Distribution Plant | 3,461,668 |
| Met-Ed Total | | 47,630,920 |
| Grant Total | | 107,607,537 |

*Section 57.195(b)(11) Budgeted transmission and distribution capital expenses for the current year**in total and detailed by the EDC's own functional account code or FERC account code as available.**2012 T&D Capital Budget¹³*

| T&D Capital - Annual 2012 | | |
|--------------------------------------|--------------------------|----------------------|
| Company | Investment Reason | Annual Budget |
| Penn Power | Capacity | 393,045 |
| | Condition | 1,847,979 |
| | Facilities | - |
| | Forced | 6,172,581 |
| | Meter Related | 22,241 |
| | New Business | 2,127,954 |
| | Other | 2,539,343 |
| | Reliability | 2,711,126 |
| | Street Light | 288,418 |
| | Tools & Equipment | 39,979 |
| | Vegetation Management | 5,725,011 |
| Penn Power Total | | 21,867,675 |
| Penelec | Capacity | 20,753,889 |
| | Condition | 17,239,082 |
| | Facilities | 113,857 |
| | Forced | 26,027,454 |
| | Meter Related | 3,500,023 |
| | New Business | 11,936,842 |
| | Other | 8,935,781 |
| | Reliability | 25,330,322 |
| | Street Light | 1,855,394 |
| | Tools & Equipment | 450,485 |
| | Vegetation Management | 21,820,032 |
| Penelec Total | | 137,963,162 |
| Met-Ed | Capacity | 11,648,570 |
| | Condition | 14,961,682 |
| | Facilities | 2,946,706 |
| | Forced | 22,992,038 |
| | Meter Related | 2,513,731 |
| | New Business | 12,998,744 |
| | Other | 1,469,711 |
| | Reliability | 11,742,584 |
| | Street Light | 367,675 |
| | Tools & Equipment | 461,560 |
| | Vegetation Management | 21,039,996 |
| Met-Ed Total | | 103,142,998 |
| Grand Total | | 262,973,834 |

¹³ In 2012, FirstEnergy adopted a modified budget reporting format that reflects capital data based on the company's internal reporting investment reasons.

Note: Budget subject to change.

General Notes:

T&D Capital Definitions

Capacity - Costs associated with improving, relieving or correcting an existing or projected voltage or thermal condition in addition to costs associated with reinforcing the infrastructure.

Condition - Costs associated with replacement of outdated and /or poor performing equipment.

Facilities - Costs associated with regional facilities structures and improvements.

Forced - Cost associated with storm outage restoration, failed substation or line equipment and devices, regulatory required and relocations of facilities associated with roadways and bridge projects.

Meter Related - Costs associated with the installation / replacement or removal of meters.

New Business - Costs associated with providing service to Residential, Commercial and Industrial customers as well as costs associated with the removal, relocation, etc. associated with New Business (E.G. service upgrades, removals).

Other - Costs associated with FirstEnergy claims against an outside party, costs associated with joint occupancy of utility poles and costs associated miscellaneous type categories, such as accounting type entries.

Reliability - Expenses incurred to improve/reinforce the reliability of the infrastructure assets. Examples include SCADA/MOABS additions, reclosure addition to Dx lines, relaying replacements, transrupters, CRI improvements, TX reliability index, etc. These costs may or may not be directed by a regulatory body.

Streetlight - Costs associated with all forms of street lighting and lighting services. Includes community lighting, dusk to dawn and area lighting for private customers, ornamental lighting, public street and highway lighting, for municipalities and associations.

Tools & Equipment - Capital expenses associated with the purchase of tools and work equipment. This also includes transportation tools and equipment.

Vegetation Management - Costs associated with planned and unplanned tree trimming and vegetation management programs.

Section 57.195(b)(12) Significant changes, if any, to the transmission and distribution maintenance programs previously submitted to the Commission.

Changes to T&D Maintenance Programs

The Companies continues to review the inspection and maintenance practices to confirm that they are consistent with industry standards and that they support the achievement of the applicable Commission-approved reliability benchmarks and standards. There are no revisions to the 2011 inspection and maintenance practices.

| Summary of Revisions 2011 | |
|--|--------------------------|
| Distribution Practices | |
| Equipment | Summary of Change |
| Distribution Practices - No Significant Changes | |
| Substation Practices - No Significant Changes | |
| Transmission Practices - No Significant Changes | |

ATTACHMENT A

Worst Performing Circuits – Remedial Action

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Submitted Pursuant to 52 PA Code § 57.195(a) and (b)

Penn Power does not have worst performing circuits to report.

| Penelec | | | | |
|--------------|----------|--|-------------------------|------------------------------|
| Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
| Starruca | 00744-65 | Performance was driven by trees non-preventable during storm. | | |
| | | Repair tree damage from minor storm | Complete | Feb-11 |
| | | Repair tree damage from storm (Hurricane Irene) | Complete | Aug-11 |
| | | Repair damage from minor storm | Complete | Oct-11 |
| | | 2011 Circuit Inspection | Complete | Nov-11 |
| | | Full Cycle Tree Clearing | Complete | Dec-11 |
| | | Add additional protection per circuit coordination | To be completed 2012 | |
| Springboro | 00237-52 | Performance was driven by equipment failure during minor storm and human error. | | |
| | | Repair equipment damage from minor storm | Complete | Feb-11 |
| | | Repair equipment damage from minor storm | Complete | Apr-11 |
| | | Repair damage from tree trimmers | Complete | Jun-11 |
| | | 2011 Circuit Inspection | Complete | Dec-11 |
| | | Targeted Mainline Reliability Equipment Replacement | Complete | Dec-11 |
| | | Full Cycle Tree Clearing | Complete | Sep-11 |
| Warren South | 00220-41 | Performance was driven by non-preventable tree damage during minor storm, and equipment failure. | | |
| | | Repair tree damage from minor storm | Complete | Apr-11 |
| | | Repair equipment damage | Complete | Jun-11 |
| | | Repair tree damage from minor storm | Complete | Jul-11 |
| | | Repair tree damage | Complete | Dec-11 |
| | | Full Cycle Tree Clearing | Complete | Dec-11 |
| Birmingham | 00168-22 | Performance was driven by non-preventable trees, equipment failure, and customer cutting tree into line. | | |
| | | Repair line from customer cutting tree | Complete | Jan-11 |
| | | Repair equipment failure | Complete | Feb-11 |
| | | Targeted Mainline Reliability Equipment Replacement | Complete | Dec-11 |
| | | 2011 Circuit Inspection | Complete | Oct-11 |
| | | Full Cycle Tree Clearing | To be completed 2012 | |

| Penelec | | | | |
|------------|----------|--|-------------------------|------------------------------|
| Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
| Salix | 00070-11 | Performance was driven by equipment failure, lightning, line failure, and trees non-preventable. | | |
| | | Repair line failure | Complete | Feb-11 |
| | | Repair tree damage | Complete | Feb-11 |
| | | Repair lightning damage | Complete | May-11 |
| | | 2011 Circuit Inspection | Complete | Jul-11 |
| | | Repair equipment damage | Complete | Oct-11 |
| Madera | 00166-22 | Performance was driven by equipment failure. | | |
| | | Repair equipment damage | Complete | Jul-11 |
| | | Full Cycle Tree Clearing | Complete | Oct-11 |
| | | Repair equipment damage | Complete | Nov-11 |
| DuBois | 00137-23 | Performance was driven by trees non-preventable, vehicle, and line failure during minor storm. | | |
| | | Repair tree damage from minor storm | Complete | Feb-11 |
| | | Repair line failure during minor storm | Complete | Apr-11 |
| | | Full Cycle Tree Clearing | Complete | Apr-11 |
| | | Repair damage from car pole accident | Complete | Jul-11 |
| Union City | 00206-43 | Performance was driven by trees non-preventable, equipment failure, and lightning damage during minor storms. | | |
| | | Reliability Coordinator to inspect circuit based on outage history | Complete | Jan-11 |
| | | Repair tree damage from minor storm | Complete | Feb-11 |
| | | Repair tree damage from minor storm | Complete | Apr-11 |
| | | Repair lightning damage | Complete | Jun-11 |
| | | Repair equipment damage | Complete | Aug-11 |
| | | Add additional protection per circuit coordination | To be completed 2012 | |
| | | Full Cycle Tree Clearing | To be completed 2012 | |

| Penelec | | | | |
|-------------------|----------------|---|--------------------------------|-------------------------------------|
| Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
| Logan | 00700-81 | Performance was driven by trees non-preventable during storm. | | |
| | | Repair tree damage from minor storm | Complete | Feb-11 |
| | | Repair tree damage from minor storm | Complete | Apr-11 |
| | | Add additional protection per circuit coordination | To be completed 2012 | |
| Erie South | 00259-31 | Performance was driven by equipment failure and line failure. | | |
| | | Reliability Coordinator to inspect circuit based on outage history | Complete | Jan-11 |
| | | Repair equipment damage | Complete | Apr-11 |
| | | Repair line failure | Complete | Sep-11 |
| | | Add additional protection per circuit coordination | To be completed 2012 | |
| Grover | 00527-63 | Performance was driven by an unknown and non-preventable trees during minor storms. | | |
| | | Repair tree damage from minor storm | Complete | Mar-11 |
| | | Full Cycle Tree Clearing | Complete | May-11 |
| | | Add additional protection per circuit coordination | To be completed 2012 | |
| Covington | 00729-63 | Performance was driven by equipment failure during minor storm and a CPA. | | |
| | | Repair equipment failure | Complete | Mar-11 |
| | | Repair vehicle damage | Complete | Apr-11 |
| | | Repair equipment failure | Complete | Jun-11 |
| Meyersdale North | 00022-12 | Performance was driven by trees non-preventable during minor storm, line failure, and CPA. | | |
| | | Repair line failure | Complete | Mar-11 |
| | | Repair tree damage from minor storm | Complete | Mar-11 |
| | | Repair CPA damage | Complete | Apr-11 |
| | | Targeted Mainline Reliability Equipment Replacement | Complete | Dec-11 |

| Penelec | | | | |
|------------------|----------|--|-------------------------|------------------------------|
| Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
| Lowell Avenue | 00518-31 | Performance was driven by trees non-preventable, and equipment failure during a minor storm. | | |
| | | Repair equipment damage | Complete | Mar-11 |
| | | Repair equipment damage | Complete | Apr-11 |
| | | Repair tree damage | Complete | Apr-11 |
| | | 2011 Circuit Inspection | Complete | Dec-11 |
| Mansfield | 00558-63 | Performance was driven by equipment failure and line failure. | | |
| | | Repair Equipment/line failure | Complete | Feb-11 |
| | | Repair failed equipment | Complete | May-11 |
| | | Add additional protection per circuit coordination | To be completed 2012 | |
| | | 2012 Circuit Inspection | To be completed 2012 | |
| | | Full Cycle Tree Clearing | To be completed 2012 | |
| Blairsville East | 00082-13 | Performance was driven by equipment failure, unknown outage, and line failure. | | |
| | | Repair equipment damage | Complete | Feb-11 |
| | | Full Cycle Tree Clearing | Complete | Feb-11 |
| Rolling Meadows | 00310-31 | Performance was driven by equipment failure during minor storm and line failure. | | |
| | | Repair line failure | Complete | May-11 |
| | | Repair equipment failure during minor storm | Complete | Feb-11 |
| | | Full Cycle Tree Clearing | Complete | Jul-11 |
| | | Add additional protection per circuit coordination | To be completed 2012 | |

| Met-Ed | | | | |
|------------|---------|--|-------------------------|------------------------------|
| Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
| Yorkana | 00708-4 | Performance driven by wind cause (27% of minutes) and non-preventable tree cause outages (46% of minutes) | | |
| | | Repair critical items identified from backbone assessment after wind storm | Complete | Dec-10 |
| | | Perform SAIFI analysis initiative study | Complete | Jan-11 |
| | | Perform Accelerated backbone and three phase assessment | Complete | Feb-11 |
| | | Replaced damaged recloser found during repair of hot spot identified from thermal scan | Complete | Mar-11 |
| | | Install radio controlled reclosers for sectionalizing. | Complete | Dec-11 |
| | | Perform accelerated circuit reliability assessment of backbone | To be completed in 2012 | |
| | | Perform accelerated circuit reliability assessment of three phase | To be completed in 2012 | |
| | | Forestry to perform on cycle comprehensive circuit Tree Trimming | To be completed in 2012 | |
| Birdsboro | 00757-1 | Performance driven by an equipment and line failure (44%) and trees non-preventable (34%) | | |
| | | Install mainline fault indicators 3 locations | Complete | Jan-11 |
| | | Perform accelerated three phase assessment | Complete | Nov-11 |
| | | Perform accelerated backbone assessment | Complete | Nov-11 |
| | | Install additional mainline fault indicators | Complete | Dec-11 |
| | | Implement proactive every-other-month mainline forestry inspections | Complete | Jan-12 |
| | | Perform SAIFI analysis initiative study | To be completed in 2012 | |
| | | Complete forestry assessment of 3 phase for SAIFI analysis | To be completed in 2012 | |
| | | Replace primary underground cable and submersibles in Maple Springs URD | To be completed in 2012 | |
| | | Upgrade Mainline Disconnects to GOAB | To be completed in 2012 | |

| Met-Ed | | | | |
|--------------|---------|---|-------------------------|------------------------------|
| Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
| Swatara Hill | 00763-2 | Performance was primarily driven by equipment failures (37%), safety related forced outages (31%) and lightning damage (24%) | | |
| | | Spot Trimming along Ridge Road | Complete | Dec-10 |
| | | Replace Underground Cable along Bassler Drive, Rhodes Drive, Chestnut Rd and Koch Ln | Complete | Dec-10 |
| | | Replace recloser along Steinruck Road | Complete | Jan-11 |
| | | Correct 3 coordination issues | Complete | Mar-11 |
| | | Install regulators along Roundtop Road | Complete | Jul-11 |
| | | Perform accelerated backbone assessment | Complete | Aug-11 |
| | | Accelerated circuit assessment 3 phase | Complete | Aug-11 |
| | | Install additional disconnect switches | Complete | Dec-11 |
| | | Install fault indicators 4 locations | Complete | Dec-11 |
| | | Balance load beyond recloser 76342 | To be completed in 2012 | |
| | | Repair broken insulator on three phase | To be completed in 2012 | |
| Bernville | 00786-1 | Performance driven by trees non-preventable (42%), lightning (26%) and a vehicle accident (9%) | | |
| | | Install 3PH mainline fault indicators 2 locations | Complete | May-11 |
| | | Replace 1 mainline 3 phase recloser and move it to a more effective location | Complete | Sept-11 |
| | | Install 1 Additional New Mainline 3 phase recloser | Complete | Dec-11 |
| | | Perform SAIFI analysis initiative study | Complete | Dec-11 |
| | | Install additional mainline tap fusing | Complete | Dec-11 |
| | | Perform accelerated backbone assessment | Complete | Jan-12 |
| | | Install additional mainline recloser | To be completed in 2012 | |
| | | Replace mainline crossarm from backbone assessment | To be completed in 2012 | |
| | | Install additional mainline tap fusing | To be completed in 2012 | |
| | | Complete forestry assessment of 3 phase for SAIFI analysis | To be completed in 2012 | |

| Met-Ed | | | | |
|--------------|---------|---|-------------------------|------------------------------|
| Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
| North Bangor | 00813-3 | Performance driven by non-preventable trees and equipment failure. 24% of minutes from transformer failure during extreme heat on 7/22/11 and 33% of minutes from trees on 6/9/11 | | |
| | | Perform accelerated backbone and three phase assessment | Complete | Apr-11 |
| | | Perform in depth inspection of backbone fuses | Complete | Apr-11 |
| | | Forestry to perform on cycle comprehensive circuit Tree Trimming | Complete | Jun-11 |
| | | Upgrade step transformers | Complete | Aug-11 |
| | | Perform Accelerated backbone and three phase assessment | To be completed in 2012 | |
| Fox Hill | 00816-3 | Performance was driven by non-preventable trees (72% of circuit minutes) | | |
| | | Perform SAIFI analysis initiative study | Complete | Jan-11 |
| | | Perform accelerated backbone and three phase assessment | Complete | Mar-11 |
| | | Replace current limiting fuses on step transformers | Complete | Mar-11 |
| | | Install Fault indicators | Complete | Mar-11 |
| | | Forestry to perform off cycle patrol and trim | Complete | Apr-11 |
| | | Study automation of sectionalizer on circuit | Complete | Sep-11 |
| | | Install Single Phase fuse | Complete | Sep-11 |
| | | Correct fuse miscoordinations identified during SAIFI analysis | Complete | Oct-11 |
| | | Install SCADA control on sectionalizer | To be completed in 2012 | |
| | | Perform accelerated backbone and three phase assessment | To be completed in 2012 | |
| | | Forestry to perform on cycle comprehensive circuit tree trimming | To be completed in 2012 | |

| Met/Ed | | | | |
|--------------|---------|--|-------------------------|------------------------------|
| Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
| Shawnee | 00822-3 | Performance driven by equipment failure (31% of minutes), lightning (25% of minutes) and non-preventable trees (26% of minutes during storm on 6/23/2011) | | |
| | | Perform SAIFI analysis initiative study | Complete | Jan-11 |
| | | Perform accelerated backbone and three phase assessment | Complete | Mar-11 |
| | | Repair critical items identified from circuit patrol | Complete | Mar-11 |
| | | Forestry to perform on cycle comprehensive circuit Tree Trimming | Complete | Mar-11 |
| | | Install Fault Indicators | Complete | Mar-11 |
| | | Replace current limiting fuses on step transformers | Complete | Apr-11 |
| | | Perform accelerated backbone and three phase assessment | To be completed in 2012 | |
| North Bangor | 00826-3 | Performance was driven by line failure, lightning and non-preventable trees | | |
| | | Perform SAIFI analysis initiative study | Complete | Jan-11 |
| | | Perform accelerated backbone and three phase assessment | Complete | Feb-11 |
| | | Perform in depth inspection of backbone fuses | Complete | Apr-11 |
| | | Operate and maintain circuit tie switches | Complete | May-11 |
| | | Install new electronic recloser | Complete | Jun-11 |
| | | Replace current limiting fuses on step transformers | Complete | Sep-11 |
| | | Install Sectionalizer | Complete | Oct-11 |
| | | Perform Accelerated backbone and three phase assessment | To be completed in 2012 | |

| Met-Ed | | | | |
|------------|---------|--|-------------------------|------------------------------|
| Substation | Circuit | Remedial Action Planned or Taken | Status of Remedial Work | Date Remedial Work Completed |
| Shawnee | 00860-3 | Performance driven by lightning and non-preventable trees. 27% of minutes from lightning strike to a recloser on 5/30/11. 37% of minutes from non-preventable trees. | | |
| | | Repair critical items identified from circuit patrol | Complete | Nov-10 |
| | | Install Fault Indicators | Complete | Feb-11 |
| | | Perform accelerated backbone and three phase assessment | Complete | Mar-11 |
| | | Replace current limiting fuses on step transformers | Complete | Mar-11 |
| | | Correct fuse miscoordinations identified during SAIFI analysis | Complete | Apr-11 |
| | | Operate and maintain circuit tie switches | Complete | Jun-11 |
| | | Install SCADA controlled switch | To be completed in 2012 | |
| | | Perform accelerated backbone and three phase assessment | To be completed in 2012 | |
| Shawnee | 00895-3 | Performance was driven by non-preventable trees, (68% of minutes), and with 32% of minutes from a tree cause | | |
| | | Perform SAIFI analysis initiative study | Complete | Jan-11 |
| | | Perform accelerated three phase and backbone assessment | Complete | Mar-11 |
| | | Replace current limiting fuses on step transformers | Complete | Mar-11 |
| | | Operate and maintain circuit tie switches | Complete | Apr-11 |
| | | Install new electronic recloser | Complete | May-11 |
| | | Forestry to perform on cycle comprehensive circuit tree trimming | To be completed in 2012 | |
| | | Perform accelerated backbone and three phase assessment | To be completed in 2012 | |

ATTACHMENT B

Substation Annual Infrared Scans

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The tables below contain a list of deficiencies and major deficiencies not corrected within the 7 and 30 day time frames.

| Penn Power | | | |
|------------------|--|----------------------------|--|
| Hot Spot Type | Hotspot Description | Days Overdue at Completion | Reason |
| Deficiency | Hotspot 63.3C Ph B Load Bush VREG | 34 | Load conditions and voltage issues delayed the work. |
| Major Deficiency | Hotspot, 119.6C, 12.47 kV, Bushing, A phase | 40 | Load conditions delayed the work. |
| Major Deficiency | Hotspot, 123.9C, 4.16 kV, Line exit, A Phase | 28 | Load conditions delayed the work. |
| Deficiency | Hotspot 75.7C, 4.16 kV, regulator bushing, A | 95 | Load conditions delayed the work. |

| Penelec | | | |
|------------------|---|----------------------------|--|
| Hot Spot Type | Hotspot Description | Days Overdue at Completion | Reason |
| Major Deficiency | Hotspot, 235C, OCB BUS SW, TR1, 4KV, JAW | 22 | Load conditions delayed the work. |
| Deficiency | Hotspot, 82C, TR1-3, 34KV X1 BUSHNG | 3 | Load conditions delayed the work. |
| Major Deficiency | Hotspot, 146C, 4 kV WEST LINE DISC, BOLTED | 1 | Load conditions delayed the work. |
| Deficiency | Hotspot, 71C, #4OCB, Bushings 2,4,6 | 5 | This needed to be coordinated with Proctor & Gamble. |
| Major Deficiency | Hotspot, 131.8C, 34.5 kV, Bus, Threaded con | 23 | Load conditions delayed the work. |

| Met-Ed | | | |
|------------------|----------------------------------|----------------------------|--|
| Hot Spot Type | Hotspot Description | Days Overdue at Completion | Reason |
| Major Deficiency | Hotspot, Lickdale: 7344 - 129C | 17 | Delay in waiting for approval of outage. |
| Major Deficiency | Hotspot, Myerstown: 4B95 - 111C | N/A | This substation was underwater during the flood in September of 2010. As a result, half of the substation remained out of service until various equipment could be replaced or repaired. During that time, all of the load fed from this substation was flowing through this switch. Maintenance could not be performed until the substation was returned to its normal configuration. The hot spot was monitored until that time. When the substation was returned to normal, the hot spot was no longer detected. As a proactive measure, a new switch has been ordered to replace the old switch. |
| Major Deficiency | Hotspot, Boyertown: 71695 - 172C | 37 | Delay in waiting for approval of outage. |

L-00030101

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Joint 2011 Annual Reliability Report – :
Pennsylvania Power Company, Pennsylvania :
Electric Company and Metropolitan Edison :
Company - Pursuant to 52 Pa. Code § 57.195(a) :
:

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true and correct copy of the foregoing document upon the individuals listed below, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

Service by overnight United Parcel Service, as follows:

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor
Harrisburg, PA 17120

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APR 30 2012

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Service by overnight United Parcel Service and by electronic mail, as follows:

Irwin Popowsky
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Yasmin Snowberger
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Dated: April 30, 2012


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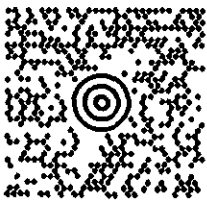
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SHIP TO:

ROSEMARY CHIAVETTA
717-772-7777
PENNSYLVANIA PUBLIC UTILITY COMMISS
COMMONWEALTH KEYSTONE BUILDING
400 NORTH STREET, 2ND FLOOR
HARRISBURG PA 17120



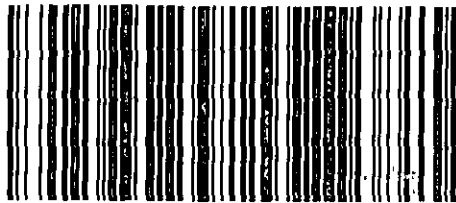
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External Carrier: UPS

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