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April 30, 2013

### VIA UNITED PARCEL SERVICE

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

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PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

### Re: Joint 2012 Annual Reliability Report – Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company

L-0003016

Dear Secretary Chiavetta,

Pursuant to 52 Pa. Code § 57.195(a) and (b), enclosed for filing are two copies of the Joint 2012 Annual Reliability Report ("Joint Report") of Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company (collectively, the "Companies"). Please date-stamp the additional copy and return it in the postage-paid envelope provided.

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.

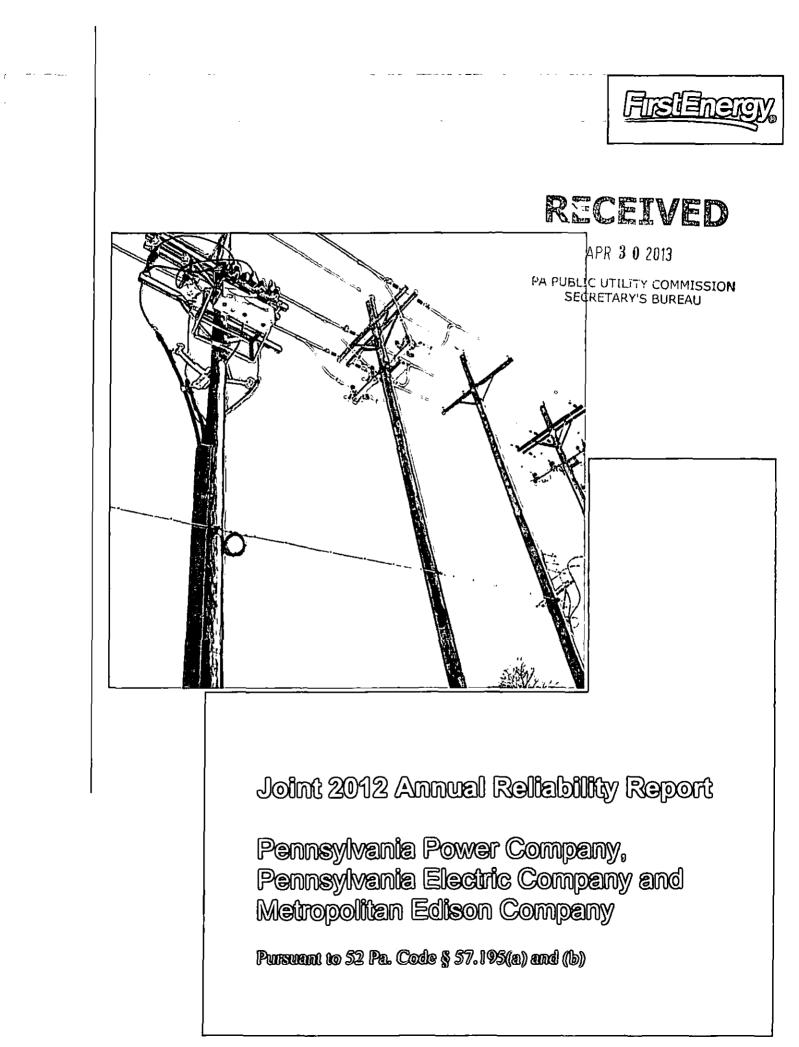
Please contact me if you have any questions.

Dur Chi= Sincerely,

Douglas S. Elliott President, Pennsylvania Operations (610) 921-6060 elliottd@firstenergycorp.com

dlm Enclosures

c: As Per Certificate of Service D. Gill – Bureau of Technical Utility Services D. Searfoorce – Bureau of Technical Utility Services



## Joint 2012 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 2012 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").

<u>Section 57.195(b)(1)</u> 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

The Companies' 2012 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.

In 2012, 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 troubleshooter coverage with first line supervision called out directly for all outages impacting over 100 customers to expedite restoration. During 2012, twenty-four 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 ten of the twenty-four 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 2012, Penelec continued the full circuit protection coordination program. This is a multi-year effort to add protective devices to circuits that experience an abnormally high number of outages. This effort coincided with a comprehensive circuit rehabilitation effort which identified poor performing circuits and implemented solutions such as equipment replacement or upgrades. Penelec continued to proactively inspect and replace damaged equipment discovered during the annual inspections of the distribution system including poles, conductors and associated devices. System improvements included the installation of radio-controlled switches which gives system operators a greater ability to restore power more efficiently and quickly, and the installation of distribution capacitors which strengthen system voltage levels. Penelec also continued their vegetation control efforts including off corridor and overhang tree removal to maintain

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proper clearances and mitigate potential damage to distribution facilities. Through these initiatives and system improvements, Penelec strives to improve the reliability of its system and provide customers quality and dependable service.

In 2012, Met-Ed continued to implement a series of reliability improvement initiatives to "stormproof" or "harden" the three-phase distribution backbone. Examples of these 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 substation and distribution asset condition assessments, corrective maintenance, aggressive tree trimming and application of technology, will further improve reliability for Met-Ed customers.

#### **Reliability Results**

The table below, taken from the 4<sup>th</sup> Quarter 2012 Joint Reliability Report, shows that 9 of 9 reliability indices in 2012 were better than the Commission's 12-Month Standard (shown in green).

	F	enn Powe	r <u>l</u>		Penelec		· · · · ·	Met-Ed	
12:Mö Rolling	Benchmark	12-Month Standard	12-Month Actual	Benchmark	12-Month Standard	12-Month Actual	Benchmark	12-Month Standard	12-Month Actual
SAIFI	1.12	1.34	1.17	1.26	1.52	1.41	1.15	1.38	1.29
CAIDI	101	121	114	117	141	138	117	140	120
SAIDI	113	162	133	148	213	194	135	194	155
Customers Served <sup>1</sup>		157,482			583,225			548,153	
Number of Sustained Interruptions	3,330		11,521		9,013				
Customers Affected	184,126		822,950		709,874				
Customer Minutes	20,952,827		113,316,787		84,718,376				

<sup>&</sup>lt;sup>1</sup> Represents the average number of customers served during the reporting period

<u>Section 57.195(b)(2)</u> 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 Penn Power, Penelec or Met-Ed's customers are out of service for five minutes or greater as defined in 52 Pa. Code § 57.192. This 2012 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 2012 quarterly reports. The major events for 2012 are as follows:

FirstEnergy Company	Customers	Time and Du	ration of the Event	Cause of the Event	Commission Approval Status	
	5	Duration	4 days, 18 hours and 19 minutes			
Penelec	106,492	Start Date/Time	July 26, 2012 1:59am	Severe thunderstorms	Approved on October 25, 2012	
		End Date/Time	July 30, 2012 8:17pm			
	296,592	Duration	10 days, 8 hours and 20 minutes		Approved on February 1, 2013	
Met-Ed		Start Date/Time	October 29, 2012 12:03pm	Hurricane Sandy		
		End Date/Time	November 8, 2012 8:23pm			
		Duration	5 days, 2 hours and 47 minutes			
Penelec	96,856	Start Date/Time	October 29, 2012 12:16pm	Hurricane Sandy	Approved on February 1, 2013	
		End Date/Time	November 3, 2012 3:03pm			

<u>Section 57.195(b)(3)</u> 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	n Rolling Reliab	ility Indices	
	Index	2010	2011	2012
	SAIFI	1.01	1.03	1.17
	CAIDI	95	138	114
	SAIDI	95	143	133
Penn Power	MAIFI	1.96	1.39	1.32
r enn r owei	Customer Minutes	15,086,521	22,654,493	20,952,827
	Customers Affected	159,615	163,657	184,126
	Minutes of Interruption	639,323	858,255	848,537
	Customers Served <sup>2</sup>	158,102	158,752	157,482
	SAIFI	1.31	1.40	1.41
	CAIDI	124	167	138
	SAIDI	162	233	194
Penelec	MAIFI	4.24	2.48	4.79
renerec	Customer Minutes	94,759,008	136,607,027	113,316,787
	Customers Affected	763,846	817,910	822,950
	Minutes of Interruption	2,432,603	3,791,204	2,654,416
	Customers Served <sup>2</sup>	583,914	585,723	583,225
	SAIFI	1.51	1.21	1.29
	CAIDI	120	117	120
	SAIDI	181	142	155
Met-Ed	MAIFI	3.90	3.06	2.15
met-Lu	Customer Minutes	98,740,558	77,558,419	84,718,376
	Customers Affected	823,797	663,664	709,874
	Minutes of Interruption	2,870,729	2,278,029	2,654,416
	Customers Served <sup>2</sup>	546,740	546,873	548,153

<sup>&</sup>lt;sup>2</sup> Represents the average number of customers served during the reporting period

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36-Month	Penn Power Met-Ec					-Ed
Rolling Year-End 2012	36-Month Standard	36-Month Actual	36-Month Standard	36-Month Actual	36-Month Standard	36-Month Actual
SAIFI	1.23	1.07	1.39	1.37	1.27	1.34 <sup>3</sup>
CAIDI	111	1164	129	143 <sup>5</sup>	129	119
SAIDI	136	124	179	197 <sup>5</sup>	163	159

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<sup>&</sup>lt;sup>3</sup> Met-Ed's higher-than-normal SAIFI is directly attributed to several non-excludable storm events that occurred in 2010. <sup>4</sup> Penn Power's higher-than-normal CAIDI is directly attributed to several non-excludable storm events as well as a substation vandalism incident, all of which occurred in 2011. The substation vandalism resulted in a thirty-one minute

CAIDI impact. <sup>5</sup> Penelec's higher-than-normal CAIDI and SAIDI is directly attributed to the 2011 non-excludable event, Hurricane Irene which resulted in a forty-five minute CAIDI and seventy-four minute SAIDI impact.

<u>Section 57.195(b)(4)</u> 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	·····		
4th Quarter 2012 12-Month Rolling	Penn Power				
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages	
TREES/NOT PREVENTABLE	7.883.570	759	36,866	22.79%	
LIGHTNING	2,996,554	643	17,143	19.31%	
ANIMAL	1,067,067	485	19,826	14.56%	
BIRD	302,385	339	3,688	10.18%	
EQUIPMENT FAILURE	2,750,656	332	30,660	9.97%	
LINE FAILURE	2,294,859	286	16,222	8.59%	
OVERLOAD	301,395	86	4,636	2.58%	
VEHICLE	872,390	72	8,644	2.16%	
PREVIOUS LIGHTNING	36,879	66	295	1.98%	
UNKNOWN	246,839	64	2,695	1.92%	
FORCED OUTAGE	610,131	53	7,632	1.59%	
HUMAN ERROR - NON-COMPANY	254,954	35	1,627	1.05%	
HUMAN ERROR - COMPANY	676,759	34	28,928	1.02%	
TREES/PREVENTABLE	77,425	27	893	0.81%	
CUSTOMER EQUIPMENT	428,545	15	2,909	0.45%	
OBJECT CONTACT WITH LINE	52,291	10	422	0.30%	
UG DIG-UP	15,390	8	109	0.24%	
FIRE	58,674	5	800	0.15%	
VANDALISM	4,518	4	13	0.12%	
CONTAMINATION	4,930	3	14	0.09%	
WIND	4,478	2	14	0.06%	
CALL ERROR	11.088	1	84	0.03%	
OTHER UTILITY-NON ELEC	1,050	1	6	0.03%	
TOTAL	20,952,827	3,330	184,126	100.00%	

#### Proposed Solutions - Penn Power

#### Trees Not-Preventable

Forestry Services reviews the "Trees Not-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 off right-of-way trees that present a hazard to power lines. Under this program all circuits that have had "Trees Not-Preventable" caused outages are prioritized based on customer outage minutes. A patrol of the three-phase backbone of each circuit is performed and foresters work with private property owners to remove any potentially dangerous tree conditions.

#### <u>Lightning</u>

The number of lightning caused outages is mitigated through Penn Power's reliability improvement strategy. This includes inspection and maintenance practices such as circuit inspections and annual main feed inspections. These inspections can locate blown lightning arresters, broken grounds and other conditions which could lead to higher lightning-caused outages. Substations also contain lightning protection through equipment such as line arresters and grounding. These items are maintained by the substation group based on the 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.

#### <u>Animal</u>

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 at the time of installation.

## Outages by Cause - Penelec

	Outages by	Cause				
4th Quarter 2012 12-Month Rolling	Penelec					
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages		
EQUIPMENT FAILURE	23,140,103	3,036	200,965	26.35%		
	11,223,749	2,044	117,411	17.74%		
TREES/NOT PREVENTABLE	41,128,588	1,825	163,997	15.84%		
ANIMAL	2,155,071	1,185	31,806	10.29%		
LINE FAILURE	15,678,176	868	114,517	7,53%		
FORCED OUTAGE	3,105,186	605	33,952	5.25%		
	5,535,695	535	40,698	4.64%		
	6,041,986	371	39,463	3.22%		
BIRD	800,110	262	5,936	2.27%		
HUMAN ERROR - COMPANY	424,924	198	12,252	1.72%		
CUSTOMER EQUIPMENT	1,106,736	111	34,711	0.96%		
HUMAN ERROR -NON-COMPANY	415,439	92	8,176	0.80%		
OVERLOAD	501,682	89	5,979	0.77%		
OTHER ELECTRIC UTILITY	244,436	59	1,514	0.51%		
PREVIOUS LIGHTNING	84,247	58	344	0.50%		
TREES/PREVENTABLE	145,029	57	548	0.49%		
	94,399	49	483	0.43%		
lice	112,447	18	246	0.16%		
VANDALISM	770,802	18	3,583	0.16%		
OBJECT CONTACT WITH LINE	194,423	16	1,232	0.14%		
FIRE	87,570	10	819	0.09%		
OTHER UTILITY-NON ELEC	277,520	6	239	0.05%		
SWITCHING ERROR	44,770	4	4,070	0.03%		
CONTAMINATION	455	3	7	0.03%		
WIND	3,244	2	2	0.02%		
Tiotal	113 316 787	11,521	822,950	100100%		

#### Proposed Solutions - Penelec

#### Equipment Failure

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

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 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.

#### <u>Unknown</u>

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.

#### Trees Not-Preventable

Forestry Services reviews the "Trees Not-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 Not-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.

## Outages by Cause - Met-Ed

	Outages by	Gause		
4th Quarter 2012		Met	.Fd	
12-Month Rolling				
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages
TREES/NOT PREVENTABLE	32,371,510	2.044	177,791	22.68%
EQUIPMENT FAILURE	14,508,654	1,946	152,066	21.59%
	7,134,496	1, <u>21</u> 8	<u>91,844</u>	13.51%
ANIMAL	1,338,572	1,094	14,499	<u>12.14%</u>
	6,261,982	<u>831</u>	41,355	9.22%
	6,568,441	580	49,030	6.44%
FORCED OUTAGE	<u>3,284,898</u>	332	66,466	
VEHICLE	6,889,128	267	48,700	2.96%
BIRD	167,917	<u>18</u> 1	<u>3,9</u> 47	2.01%
TREES/PREVENTABLE	1,784,595	<u>    14</u> 1	12,994	1.56%
HUMAN ERROR - NON-COMPANY	770,638	<u> </u>	4,507	0.84%
PREVIOUS LIGHTNING	129,220	64	701	0.71%
HUMAN ERROR - COMPANY	261,548	56	18,525	0.62%
OVERLOAD	855,133	54	10,090	0.60%
UG DIG-UP	95,492	31	478	0.34%
OBJECT CONTACT WITH LINE	628,515	- 26	7,063	0.29%
WIND	1,021,924	23	2.200	0.26%
CUSTOMER EQUIPMENT	430.596		2,052	0.20%
VANDALISM	5.501	11	45	0.12%
OTHER ELECTRIC UTILITY	107,588	9	4,532	0.10%
IFIRE	99,181	8	978	0.09%
OTHER UTILITY-NON ELEC	2,736	2	10	0.02%
CONTAMINATION	111	1	1	0.01%
MOMAL	84,718,376	91013	7,091874	100.00%

#### Proposed Solutions – Met-Ed

#### Trees Not-Preventable

Forestry Services review areas where "Trees Not-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 the Engineering Department that have had "Trees Not-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.

#### 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 Department 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.

#### <u>Unknown</u>

Outage-by-cause analysis is one of the tools used to analyze and develop circuit and system reliability improvement plans. During the investigation of an outage, 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.

<u>Section 57.195(b)(5)</u> 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 Actions

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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.

Inspection and Maintenance		Penr	Power	Pe	nelec *	Met-Ed		
	2012	Planned	Completed	Planned	Completed	Planned	Completed	
Forestry	Transmission (Miles)	69.90	69.90	677.85	674.00 <sup>6</sup>	343.90	343.73 <sup>7</sup>	
Forestry	Distribution (Miles)	1,115	1,115	4,868	4,900	3,088	3,088	
Transmission	Aerial Patrols	2	2	2	2	2	2	
i ransmission	Groundline	0	0	2,658	3,049	0	0	
	General Inspections	967 <sup>8</sup>	967	5,004	5,004	2,635 <sup>9</sup>	2,635	
Substation	Transformers	124	124	787	787	348 <sup>10</sup>	348	
Jubatation	Breakers	71 <sup>11</sup>	71	684 <sup>12</sup>	684	223 <sup>13</sup>	223	
	Relay Schemes	110	110	474 <sup>14</sup>	474	441 <sup>15</sup>	441	
	Capacitors	1,000	1,007	8,676	8,676	4,668	4,668	
	Poles	10,500	10,717	41,111	34,992 <sup>16</sup>	28,433	28,695	
		Planned	Completed	Planned	Completed	Planned	Completed	
Distribution	Reclosers	760	761	2,578 <sup>17</sup>	2,578	976	976	
	Radio-Controlled Switches (2 / year)	radio-o	wer has no controlled itches	2,281 <sup>18</sup>	2,281	116 <sup>19</sup>	116	

# T&D Inspection and Maintenance Programs

General Note:

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

- <sup>7</sup> 0.17 of a mile was not completed due to one property owner refusal
- <sup>8</sup> Planned number changed to 967 as one new substation was energized
- <sup>9</sup> Planned number changed to 2,635 as one new substation was energized
- <sup>10</sup> Planned number changed to 348 as one transformer was removed from service

<sup>&</sup>lt;sup>6</sup> 3.85 miles were not completed due to nine property owner refusals

<sup>&</sup>lt;sup>11</sup> Planned number changed to 71 as four breakers should not have been included in the original work plan

<sup>&</sup>lt;sup>12</sup> Planned number changed to 684 as seven breakers should not have been included in the original work plan and five

breakers were removed from service

Planned number changed to 223 as four breakers were removed from service

<sup>&</sup>lt;sup>14</sup> Planned number changed to 474 as three relay schemes were removed from service

<sup>&</sup>lt;sup>15</sup> Planned number changed to 441 as four relay schemes were removed from service

 <sup>&</sup>lt;sup>16</sup> As of 3/9/2013, the remaining 6,119 pole inspections have been completed
<sup>17</sup> Planned number changed to 2,578 as one new recloser was installed

<sup>&</sup>lt;sup>18</sup> Planned number changed to 2,281 as twenty-three new radio-controlled switches were installed

<sup>&</sup>lt;sup>19</sup> Planned number changed to 116 as one recloser is not radio-controlled

<u>Section 57.195(b)(7)</u> 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 C	Penn Power D&M YTD Decembe	er 2012	wa `way ∕u.	
	Category	YTD Actuals	YTD Budget	Variance %	Notes
Transi	mission				
560	Operation Supervision & Engineering	(3)	0	-100%	5
561	Load Dispatching	95,389	89,239	7%	
565	Transmission of Electricity by Others	9,409,682	1,899,644	395%	1
566	Miscellaneous Transmission Expenses	22,499	8,223	174%	13
567	Rents	1	0	100%	5
568	Maintenance Supervision & Engineering	8,682	833	942%	2
569	Maintenance of Structures	36,041	74,221	-51%	3
570	Maintenance of Station Equipment	3,330	60,867	-95%	4
571	Maintenance of Overhead Lines	26,975	29,187	-8%	
573	Maintenance of Miscellaneous Transmission Plant	689	7	9820%	5
575	Market Administration, Monitoring & Compliance Services	21,521	69,041	-69%	6
Transr	nission Total	9,624,806	2,231,261	·	· · ·
Distrib		<u>·</u>		· · · · · ·	
580	Operation Supervision & Engineering	80,169	0	100%	17
582	Station Expenses	14,340	35,541	-60%	14
583	Overhead Line Expenses	22,565	0	100%	18
584	Underground Line Expenses	57,770	330,007	-82%	15
586	Meter Expenses	164,655	66,297	148%	13
588	Miscellaneous Distribution Expenses	922,955	268,821	243%	12, 16
589	Rents	325,327	317,191	3%	
590	Maintenance Supervision & Engineering	85,408	(8,109)	1153%	7
592	Maintenance of Station Equipment	869,450	362,451	140%	8
593	Maintenance of Overhead Lines	6,698,528	5,041,000	33%	9
594	Maintenance of Underground Lines	1,202,472	0	100%	19
595	Maintenance of Line Transformer	45	0	100%	5
596	Maintenance of Street Lighting and Signal Systems	409,427	286,350	43%	10
597	Maintenance of Meters	761,506	706,228	8%	
598	Maintenance of Miscellaneous Distribution Plant	325,449	410,553	-21%	11
Distrib	ution Total	11,940,066	7,816,329		
	Power Grand Votal	21,564,872	10,047,591		

Var	ance Explanations (Variances 10% or greater):
1	Over budget due to lower Network Integration Transmission Services (NITS) charges as a result of fewer customers shopping than anticipated.
2	Over budget due to costs associated with engineering and locating of underground facilities being greater than anticipated.
3	Under budget due to lower Information Technology (IT) support than planned.
4	Under budget due to costs to maintain station equipment and related overheads being less than anticipated.
5	Current budgeting practices do not budget directly to FERC accounts. FirstEnergy budgets to different cost collectors, which settle to FERC accounts. Actual settlements to these FERC accounts are relatively immaterial amounts.
6	Under budget due to lower load procurement expenses for the Load Serving Entity (LSE).
7	Over budget due to supervision and engineering overheads being greater than anticipated.
8	Over budget due to benefit financing, company vehicles and substation services costs being greater than anticipated.
9	Over budget due to equipment rental expenses being greater than anticipated.
10	Over budget due to company vehicle costs being greater than anticipated.
11	Under budget due to tool and equipment needs being less than anticipated.
12	Annual budget differences from beginning of year reporting to end of year reporting due to reclassifications.
13	Over budget due to the allocation of corporate overheads being greater than anticipated.
14	Under budget due to internal labor requirements for the work being less than anticipated.
15	Under budget due to outside contractor requirements for the work being less than anticipated.
16	Over budget due to internal labor, materials and lease costs being greater than anticipated.
17	Over budget due to materials and supplies required to complete this work, as well as corporate overheads, were not budgeted to this FERC account.
18	Over budget due to internal labor required to complete this work which was not budgeted to this FERC account.
19	Over budget due to internal labor and outside contractors required to complete this work being budgeted to a different FERC account.

#### -15-

	T&D O&N	Penelec I (YTD December 20	)12)		
	Category	YTD Actuals	YTD Budget	Variance %	Notes
Transi	mission	ـــــــــــــــــــــــــــــــــــــ		L	
560	Operation Supervision & Engineering	32,314	32,351	0%	
561	Load Dispatching	715,896	1,017,731	-29%	11
562	Station Expenses	21,695	0	100%	9
563	Overhead Lines Expenses	238,068	286,854	-1795	11
565	Transmission of Electricity by Others	1,258,167	3,414,084	-63%	1
566	Miscellaneous Transmission Expenses	742,170	571,571	30%	3
567	Rents	2,599,575	2,561,075	2%	
568	Maintenance Supervision & Engineering	262,153	(1,963)	13456%	2
569	Maintenance of Structures	400,459	406,381	-1%	
570	Maintenance of Station Equipment	1,556,064	475,943	227%	3
571	Maintenance of Overhead Lines	7,849,571	7,182,351	9%	
572	Transmission-Maintenance of Underground Lines	(9)	0	-100%	16
	Maintenance of Miscellaneous			<u> </u>	
573	Transmission Plant	43,301	0	100%	12
<u> </u>	Market Administration, Monitoring &				
575	Compliance Services	56,369	59,220	-5%	
Transn	nission Total	15,775,793	16,005,598		
Distrib	ution				
580	Operation Supervision & Engineering	546,223	498,361	10%	13
581	Load Dispatching	552,641	720,058	-23%	14
582	Station Expenses	89,217	0	100%	9
583	Overhead Line Expenses	46,590	72,521	-36%	11
584	Underground Line Expenses	155,030	0	100%	15
585	Distribution-Street Lighting & Signal System Expenses	2,175	0	100%	9
586	Meter Expenses	477,742	681,777	-30%	4
588	Miscellaneous Distribution Expenses	7,516,087	3,357,893	124%	5,10
589	Rents	1,508,540	1,616,266	-7%	5,10
590	Maintenance Supervision & Engineering	367,602	(10,910)	3469%	2
592	Maintenance of Station Equipment	3,833,742	6,600,832	-42%	6
593	Maintenance of Overhead Lines	29,636,316	13,288,148	123%	7
594	Maintenance of Underground Lines	2,530,889	729,250	247%	- 8
595	Maintenance of Line Transformer	451	0	100%	16
596	Maintenance of Street Lighting & Signal	1,086,652	1,919,895	-43%	4
	Systems			0%	
597	Maintenance of Meters	2,133,842	2,125,364	078	
598	Maintenance of Miscellaneous Distribution Plant	2,270,179	2,323,975	-2%	
)istribu	ition Total	52,753,918	33,923,429		
2enelei	s Grand Total	68,529,760	49.929.027		

Varia	nce Explanations (Variances 10% or greater):
1	Under budget due to lower Network Integration Transmission Services (NITS) charges as a result of fewer customers shopping than anticipated.
2	Over budget due to supervision and engineering overheads being greater than anticipated.
3	Over budget due to labor requirements for the work being greater than anticipated.
4	Under budget due to more of this work being classified as capital repairs compared to the plan.
5	Over budget due to company vehicle costs and miscellaneous discounts being greater than anticipated.
6	Under budget due to substation maintenance costs being less than anticipated.
7	Over budget due to costs associated with Hurricane Sandy and to accounting adjustments for employee benefits.
8	Over budget due to accounting adjustments for employee benefits.
9	Over budget due to internal labor required to complete this work which was not budgeted to this FERC account.
10	Annual budget differences from beginning of year reporting to end of year reporting due to reclassification.
11_	Under budget due to equipment rental expenses being less than anticipated.
12	Over budget due to materials and supplies required to complete this work which was not budgeted to this FERC account.
13	Over budget due to the allocation of corporate overheads being greater than anticipated.
14	Under budget due to internal labor requirements for the work being less than anticipated
15	Over budget due to outside contractors required to complete this work which was not budgeted to this FERC account.
16	Current budgeting practices do not budget directly to FERC accounts. FirstEnergy budgets to different cost collectors, which settle to FERC accounts. Actual settlements to these FERC accounts are relatively immaterial amounts.

	Met-Ed T&D O&M (YTD December 2012)						
[	Category	YTD Actuals	YTD Budget	Variance %	Notes		
Transmission							
560	Operation Supervision & Engineering	26,582	27,031	-2%			
561	Load Dispatching	2,157,223	2,522,469	-14%	11		
562	Station Expenses	60,458	0	100%	13		
563	Overhead Lines Expenses	17,263	18,968	-9%			
565	Transmission of Electricity by Others	2,379,833	5,831,266	-59%	1		
566	Miscellaneous Transmission Expenses	1,278,662	799,486	60%	14		
567	Rents	270,245	292,248	-8%			
568	Maintenance Supervision & Engineering	424,697	(8,873)	4886%	2		
569	Maintenance of Structures	381,793	459,423	-17%	3		
570	Maintenance of Station Equipment	1,498,473	1,804,932	-17%	4		
571	Maintenance of Overhead Lines	6,345,528	3,837,339	65%	5		
572	Maintenance of Underground Lines	351	0	100%	19		
573	Maintenance of Miscellaneous Transmission Plant	44,458	0	100%	15		
575	Market Administration, Monitoring & Compliance Services	66,207	85,180	-22%	6		
Transn	nission Total	14,951,773	15,669,469		`·		
Distrib							
580	Operation Supervision & Engineering	467,114	306,496	52%	15		
581	Load Dispatching	442,693	493,467	-10%	11		
582	Station Expenses	726,523	907,920	-20%	11		
583	Overhead Line Expenses	41,146	317,761	-87%	16		
584	Underground Line Expenses	556,532	615,761	-10%	16		
585	Distribution-Street Lighting & Signal System Expenses	(1,980)	0	-100%	17		
586	Meter Expenses	457,769	537,220	-15%	11		
588	Miscellaneous Distribution Expenses	5,081,539	4,019,105	26%	12, 18		
589	Rents	530,432	513,036	3%			
590	Maintenance Supervision & Engineering	380,760	(13,732)	2873%	7		
591	Maintenance of Structures	9,511	9,849	-3%			
592	Maintenance of Station Equipment	3,106,704	2,353,814	32%	4, 8		
593	Maintenance of Overhead Lines	31,308,782	15,014,077	109%	9		
594	Maintenance of Underground Lines	1,981,890	719,121	176%	8		
595	Maint. Line Transformer	1,594	0	100%	13		
596	Maintenance of Street Lighting & Signal Systems	729,664	708,242	3%			
597	Maintenance of Meters	2,304,890	1,997,646	15%	10		
598	Maintenance of Miscellaneous Distribution Plant	2,000,520	3,461,668	-42%	3		
Distribution Total 50,126,084 31,961,451							
	Grand Total	65 077 858	47/630/920	ا اس			

	Under budget due to lower Network integration Transmission Services (NITS) charges as a result of fewer
1	customers shopping than anticipated.
2	Over budget due to Planning & Protection Services being more than anticipated.
3	Under budget due to lower information Technology (IT) support than planned.
4	Under budget due to costs to maintain station equipment being less than anticipated.
5	Over budget due to vegetation management costs being more than anticipated and also to costs associated with
5	Hurricane Sandy.
6	Under budget due to lower load procurement expenses for the Load Serving Entity (LSE).
7	Over budget due to engineering and supervision overheads being greater than anticipated.
8	Over budget due to accounting adjustments for employee benefits.
9	Over budget due to costs associated with Hurricane Sandy and to accounting adjustments for employee benefits.
10	Over budget due to overtime, fuel usage and vehicle rental costs being greater than anticipated.
_11	Under budget due to internal labor requirements for the work being less than anticipated.
12	Annual budget differences from beginning of year reporting to end of year reporting due to reclassifications.
13	Over budget due to internal labor required to complete this work which was not budgeted to this FERC account.
14	Over budget due to internal labor required to complete this work and corporate overheads being greater than anticipated.
15	Over budget due to the allocation of corporate overheads which were not budgeted to this FERC account.
16	Under budget due to outside contractor requirements for the work being less than anticipated.
17	Under budget due to a tax gross-up on reimburseable work which was not budgeted to this FERC account.
18	Over budget due to internal labor, materials and motor fuel costs being less than anticipated.
	Current budgeting practices do not budget directly to FERC accounts. FirstEnergy budgets to different cost
19	collectors, which settle to FERC accounts. Actual settlements to these FERC accounts are relatively immaterial

<u>Section 57.195(b)(8)</u> 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.

Penn Power T&D Capital (YTD December 2012)					
Category	YTD Actuals	YTD Budget	Variance %	Notes	
Capacity	1,233,615	393,045	214%	16	
Condition	3,441,048	1,847,979	86%	17	
Facilities	179,062	-	100%	16	
Forced	8,515,238	6,172,581	38%	18	
Meter Related	667,413	22,241	2901%	19	
New Business	6,737,380	2,127,954	217%	20	
Other	2,304,942	2,539,343	-9%		
Reliability	1,637,788	2,711,126	-40%	21	
Street Light	291,067	288,418	1%		
Tools & Equip	326,132	39,979	716%	22	
Vegetation Mgt.	6,284,597	5,725,011	10%	23	
Penn Power Total	31,618,282	21,867,675			

Budgeted vs. Actual T&D Capital Expenditures

Penelec T&D Capital (YTD December 2012)					
Category	YTD Actuals	YTD Budget	Variance %	Notes	
Capacity	15,560,752	20,753,889	-25%	7	
Condition	14,087,003	17,239,082	-18%	8	
Facilities	3,598,039	113,857	3060%	9	
Forced	39,959,443	26,027,454	54%	10	
Meter Related	3,510,077	3,500,023	0%		
New Business	15,912,309	11,936,842	33%	11	
Other	18,561,119	8,935,781	108%	12	
Reliability	17,517,856	25,330,322	-31%	13	
Street Light	2,020,013	1,855,394	9%		
Tools & Equip	1,109,831	450,485	146%	14	
Vegetation Mgt.	24,133,136	21,820,032	11%	15	
Penelec Total	155,969,576	137,963,162			

Met-Ed T&D Capital (YTD December 2012)				
Category	YTD Actuals	YTD Budget	Variance %	Notes
Capacity	11,708,014	11,648,570	1%	
Condition	15,035,272	14,961,682	0%	
Facilities	1,170,247	2,946,706	-60 <u>%</u>	1
Forced	61,821,277	22,992,038	169%	2
Meter Related	2,915,589	2,513,731	16%	3
New Business	12,478,481	12,998,744	-4%	
Other	20,800,127	1,469,711	1315%	4
Reliability	11,014,357	11,742,584	-6%	
Street Light	377.075	367,675	3%	
Tools & Equip	1,602.314	461,560	247%	5
Vegetation Mgt.	17,610,719	21,039,996	-16%	6
Met Ed Total	156,533,474	103,1424998		

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20	Under budget due to lower spend on the Easton Facilities Gas Plant remediation project than anticipated. Wer budget due to costs related to Hurricane Sandy. Wer budget due to meter change-outs being greater than anticipated.
30	
	wer budget due to meter change-outs being greater than anticipated.
1410	
	ver budget due to construction overheads being greater than anticipated.
	wer budget due to small tool purchases being greater than anticipated and to increased information Technology (IT) spend or the Microwave upgrade project.
6 U	Inder budget due to distribution forestry spend being less than anticipated.
7 0	Inder budget due to timing differences related to a new substation and to build a 115kV line
	Inder budget due to costs related to the distribution danger pole replacement program and the distribution reject pole eplacement program being less than anticipated.
	ver budget due to Montrose facility renovation project, Altoona warehouse consolidation and to higher capitalization of acilities contractors.
10 0	wer budget due to costs related to Hurricane Sandy and substation forced failures being greater than anticipated.
11 0	wer budget due to new commercial and new residential business being greater than anticipated.
	ver budget due to administrative and general, supervision and transportation-related overheads being greater than nticipated.
	Inder budget due to laser imaging detection and ranging (LIDAR) mitigation, distribution reliability improvement plan and nain line rehabilitation program costs being lower than anticipated.
14 0	ver budget due to small tools and information Technology (IT) projects being greater than planned.
15 0	ver budget due to vegetation management costs being greater than anticipated.
16 0	ver budget due to the future year project being accelerated to 2012 from 2013.
17 0	ver budget due mainly to arrester program work.
	ver budget due to higher than anticipated storm activity.
	ver budget due to the acceleration of several meter-related projects to 2012.
	ver budget due to new commercial and new residential business being greater than anticipated.
1211	nder budget due to a lower than anticipated need for supervisory control and data acquisition (SCADA) and customer sperienced major interruptions (CEMI) work than budgeted.
22 0	ver budget due to increased capital tool needs than anticipated.
23 0	ver budget due to higher costs for forestry contractors than anticipated.

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

<u>Section 57.195(b)(9)</u> 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 – 2013 Goals / Objectives

T&D Inspection & Maintenance Programs - 2013				
Program/Project	Penn Power	Penelec	Met-Ed	
Forestry	• • • • • • • • • • • • • • • • • • •			
Transmission (Miles)	77.97	422.30	395.17	
Distribution (Miles)	1,183	4,636	2,837	
Transmission				
Aerial Patrols	2	2	2	
Groundline (Poles)	0	1,268	0	
Substation				
General Inspections	924	4,895	2,592	
Transformers	126	687	326	
Breakers	47	310	147	
Relay Schemes	40	189	321	
Distribution	·	4		
Capacitors	1,009	8,677	4,691	
Poles	10,900	41,111	31,159	
Reclosers	773	2,568	1,033	
Radio-Controlled Switches (2 / year)	Penn Power has no radio-controlled switches	2,294	130	

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

<u>Section 57.195(b)(10)</u> 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.

# 2013 T&D O&M Budget<sup>20</sup>

	Penn Rower T&D O&M Annual 2013	· · · · · · · · · · · · · · · · · · ·
	Category	Annual Budget
Trac	smission	Annual Dauger
561		89,615
565	Transmission of Electricity by Others	12,503,411
	Miscellaneous Transmission Expenses	172,213
	Maintenance Supervision & Engineering	(2,405)
	Maintenance of Structures	68,502
	Maintenance of Station Equipment	4,628
	Maintenance of Overhead Lines	14,222
573	Maintenance of Miscellaneous Transmission Plant	7
575	Market Administration, Monitoring & Compliance Services	23,000
	smission Total	12,873,193
Distr	ibution	
580	Operation Supervision & Engineering	81,257
582	Station Expenses	63,940
	Underground Line Expenses	279,703
586	Meter Expenses	108,157
	Miscellaneous Distribution Expenses	1,007,020
589	Rents	342,528
590	Maintenance Supervision & Engineering	39,663
592	Maintenance of Station Equipment	110,396
593	Maintenance of Overhead Lines	5,178,051
596	Maintenance of Street Lighting & Signal Systems	305,675
	Maintenance of Meters	505,111
598	Maintenance of Miscellaneous Distribution Plant	390,604
Distr	bution Total	8,412,104
Peni	Rower Total	21,285,297

	Penelec T&D O&M - Annual 2013			
	Category	Annual Budget		
Tran	smission	· · · · · · · · · · · · · · · · · · ·		
560	Operation Supervision & Engineering	69,161		
	Load Dispatching	656,152		
563	Overhead Line Expenses	355,919		
565	Transmission of Electricity by Others	6,376,335		
566	Miscellaneous Transmission Expenses	1,387,159		
567	Rents	2,566,332		
568	Maintenance Supervision & Engineering	122,011		
	Maintenance of Structures	326,047		
570	Maintenance of Station Equipment	410,675		
571	Maintenance of Overhead Lines	3,198,069		
573	Maintenance of Miscellaneous Transmission Plant	5		
575	Market Administration, Monitoring & Compliance Services	60,602		
Trans	smission Total	15,528,467		
Distr	Distribution			
580	Operation Supervision & Engineering	541,782		
581	Load Dispatching	410,428		
583	Overhead Line Expenses	62,112		
584	Underground Line Expenses	864,979		
586	Meter Expenses	629,820		
588	Miscellaneous Distribution Expenses	3,747,334		
589	Rents	1,616,266		
590	Maintenance Supervision & Engineering	195,781		
592	Maintenance of Station Equipment	5,547,134		
593	Maintenance of Overhead Lines	13,777,742		
594	Maintenance of Underground Lines	2,858		
596	Maintenance of Street Lighting & Signal Systems	2,329,580		
597	Maintenance of Meters	2,015,938		
598	Maintenance of Miscellaneous Distribution Plant	1,861,456		
Trans	Transmission Total 33,603,210			
Rene		49,131,677		

<sup>&</sup>lt;sup>20</sup> Budgets are subject to change.

	Met-Ed T&D O&M Annual 2013		
[	Category	Annual Budget	
-	smission		
	Operation Supervision & Engineering	58,774	
	Load Dispatching	2,196,993	
563	Overhead Line Expenses	24,767	
	Transmission of Electricity by Others	7,567,268	
	Miscellaneous Transmission Expenses	1,539,734	
567	Rents	292,248	
568	Maintenance Supervision & Engineering	108,178	
569	Maintenance of Structures	293,263	
570	Maintenance of Station Equipment	1,829,093	
571	Maintenance of Overhead Lines	3,051,933	
573	Maintenance of Miscellaneous Transmission Plant	7,170	
575	Market Administration, Monitoring & Compliance Services	75,235	
Tran	smission Total	17,044,657	
Distr	fbution		
580	Operation Supervision & Engineering	418,679	
581	Load Dispatching	333,270	
582	Station Expenses	1,518,279	
583	Overhead Line Expenses	319,448	
584	Underground Line Expenses	591,130	
586	Meter Expenses	529,568	
588	Miscellaneous Distribution Expenses	(1,707,739)	
589	Rents	521,731	
590	Maintenance Supervision & Engineering	175,141	
591	Maintenance of Structures	15,607	
592	Maintenance of Station Equipment	2,877,573	
593	Maintenance of Overhead Lines	14,531,610	
594	Maintenance of Underground Lines	585,621	
596	Maintenance of Street Lighting & Signal Systems	577,427	
597	Maintenance of Meters	2,078,356	
598	Maintenance of Miscellaneous Distribution Plant	2,521,029	
Distri	Distribution Total 25,886,732		
Met		42,93,1,388	

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.

# 2013 T&D Capital Budget<sup>21</sup>

Penn Power T&D Capital - 2013		
Category Annual Budge		
Capacity	1,898,953	
Condition	2,564,631	
Facilities	1,501	
Forced	6,271,967	
Meter Related	187,050	
New Business	2,438,400	
Other	813,787	
Reliability	5,028,877	
Street Light	27,798	
Tools & Equipment	100,895	
Vegetation Management	6,156,508	
Penn Power Total	25,490,367	

Renelec T&D Capital - 201	<b>3</b> 1
Category	Annual Budget
Capacity	33,085,381
Condition	8,044,466
Facilities	325,953
Forced	30,504,899
Meter Related	2,867,772
New Business	11,203,236
Other	24,833,152
Reliability	27,632,639
Street Light	1,253,565
Tools & Equipment	867,093
Vegetation Management	18,493,035
Penelec Tiotal	159,111,191

Met-Ed T&D Capital - 201	<b>13</b>
Category	Annual Budget
Capacity	14,704,838
Condition	13,944,041
Facilities	82,821
Forced	22,430,887
Meter Related	2,431,665
New Business	13,442,789
Other	10,296,827
Reliability	5,129,361
Street Light	360,151
Tools & Equipment	985,018
Vegetation Management	14,688,050
Met Ed Total	98,496,448

<sup>&</sup>lt;sup>21</sup> Budgets are subject to change.

<u>Section 57.195(b)(12)</u> 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. In 2012 there were no significant revisions made to the inspection and maintenance practices.

# ATTACHMENT A

Worst Performing Circuits – Remedial Actions

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

Penn Power does not have worst performing circuits to report.

<u>Péñélèc</u>			Status of Remedial Work	Date Remedial Worl
Substation	Circuit	Remedial Action Planned or Taken	Completed	Completed
		Performance was driven by line failure during storm, trees non-preventable and vehicle contact.		
Madera	00166-22	Repair line failure	Complete	May-12
		Repair damage from vehicle	Complete	Aug-12
		Repair damage caused by a tree	Complete	Sep-12
		Performance was driven by trees non-preventable and line failure during a minor storm.		
Salix	00070-11	Repair damage caused by a tree during a storm	Complete	May-12
		Repair line failure	Complete	Dec-12
		Performance was driven by lightning during minor storm and equipment failure.		
Philipsburg	00162-22	Repair damage caused by lighting	Camplete	May-12
		Repair equipment failure	Complete	Sep-12
		Full cycle tree clearing	Complete	Dec-12
	00103-23	Performance was driven by a car pole accident and trees non-preventable during minor storm.		
		Repair damage from vehicle	Complete	Jan-12
Timblin		Repair damage caused by a tree	Complete	May-12
		Repair damage caused by a tree during a storm	Complete	Jul-12
		Circuit inspection	To be completed 2013	
		Performance was driven by non-preventable tree damage during minor storm and a car pole acciden	t.	
Warren South	00220-41	Repair damage caused by a tree during a storm	Complete	Feb-12
		Repair damage from car pole accident	Complete	May-12
	00089-13	Performance was driven by equipment failure and an unknown cause during minor storm as well as t	rees non-preventable.	
		Repair equipment faiture	Complete	Jan-12
Edgewood		Repair damage caused by a tree	Complete	May-12
		Repair equipment failure during storm	Complete	May-12
		Add additional protection per circuit coordination	Complete	Jun-12
		Full cycle tree clearing	To be completed 2013	

<u>Penelec</u>				
Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remediai Work Completed
		Ferformance was driven by equipment failure, line failure and trees non-preventable.	) completed	Completed
		Repair damage caused by a tree during a storm	Complete	Feb-12
Erie South	00259-31	Repair equipment damage	Complete	Jun-12
		Repair line failure	Complete	Sep-12
		Add addienal protection per circuit coordination	Complete	Jan-13
		Performence was driven by equipment failure.	•	<u> </u>
Brookville	00123-23	Repair equipment damage	Complete	Jan-12
		Add additional protection per circuit coordination	To be completed 2013	
		Circuit inspection	To be completed 2013	
		Ferformence was driven by non-preventable trees during a minor storm.	L	<b></b>
Grover	00527-63	Repair damage caused by a tree during a storm	Complete	Apr-12
		Full cycle tree clearing	Complete	May-11
		Add additional protection per circuit coordination	Complete	Sep-12
	00533-65	Ferformence was driven by trees non-preventable.	•	<u> </u>
Tunkhannock		Repair damage caused by a tree	Complete	Aug-11
Inninginiock		Repair damage caused by a tree	Complete	Nov-12
		Full cycle tree clearing	To be completed 2013	
		Performance was driven by trees non-preventable during storm, animal contact and equipment failure.	·	
	00436-65	Repair equipment failure	Complete	May-12
Thompson		Repair damage caused by a tree	Complete	Jul-12
		Repair animal contact damage	Complete	Jul-12
		Fuil cycle tree clearing	Complete	Sep-11
		Add additional protection per circuit coordination	Complete	Dec-12
l	00755-65	Performance was driven by trees non-preventable and equipment failure.		
Lenox		Repair damage caused by a tree	Complete	Jun-12
		Repair equipment damage	Complete	 Jan-12

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

Penelec				
Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Date Remedial Work
			Completed	Completed
		Performance was driven by line failure and trees non-preventable during storm.		
	00435-65	Repair damage caused by a tree during a storm	Complete	Jun-12
Tiffany		Repair line failure	Complete	Jun-12
		Add additional protection per circuit coordination	Complete	Mar-13
		Full cycle tree clearing	To be completed 2013	
		Performance was driven by equipment failure and vehicle damage.		
Erie East		Repair equipment damage	Camplete	Jan-12
	00234-31	Repair damage caused by a tree	Complete	Jan-12
		Repair damage from vehicle	Complete	Sep-12
		Add additional protection per circuit coordination	Complete	Oct-12
		Full cycle tree clearing	To be completed 2013	

Met-Ed	÷					
Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remedial Work Completed		
		Performance was driven by vehicle caused outages (74% of minutes).				
		Perform accelerated circuit reliability assessment of backbone	Complete	May-12		
		Perform accelerated circuit reliability assessment of three phase	Complete	Way-12		
		Forestry to perform on cycle comprehensive circuit tree trimming	Complete	₩ay–12		
Yorkana	00708-4	Personal letter to be sent to each customer on this circuit explaining reliability improvements	Complete	Изу-12		
		Reconfigure circuit to minimize line exposure	Complete	ไปสy–12		
		Perform accelerated single phase assessment	Complete			
		Perform accelerated backbone and three phase circuit assessment	Complete	Jun-12		
		Perform accelerated backbone and three phase circuit assessment	To be completed 2013			
		Performance was driven by trees at 63% of circuit minutes and a capacitor bank problem at 16% of	of circuit minutes.			
		Perform accelerated circuit reliability assessment of mainline	Complete	Apr-12		
		Perform accelerated circuit reliability assessment of three phase	Complete	Apr-12		
Gardners	00752-4	Perform accelerated circuit reliability assessment of single phase backbone	Complete	Apr-12		
		Perform post Hurricane Sandy accelerated circuit reliability assessment of mainline	Complete	Kov-12		
	l	Perform post Hurricane Sandy accelerated circuit reliability assessment of three phase	Complete	Hov-12		
		Perform accelerated backbone and three phase circuit assessment	To be completed 2013			
		Performance driven by trees non-preventable outages (61%) and an outage caused by a fuse holder problem (13%).		ier problem (13%).	• • • • • • • • • • • • • • • • • • • •	
		Implement proactive every other month mainline forestry inspection	Complete	Jan-12		
		Proactive every other month mainline forestry inspection	Complete	Jan-12		
		Spot mainline tree trimming and removals	Complete	Jan-12		
		Replace crossarm from circuit assessment	Complete	Jan-12		
		Proactive every other month mainline forestry inspection	Complete	Mar-12		
	007 <del>56</del> -1	Spot mainline tree trimming and removals	Complete	Apr-12		
		Proactive every other month mainline forestry inspection	Complete	Way-12		
		Spot mainline tree trimming and removals	Complete	Jun-12		
		Replace bypass disconnects mainline recloser	Complete	Jun-12		
Birdsboro		Perform accelerated backbone and three phase assessment	Complete	Jul-12		
		Engineering review for the installation of an additional mainline recloser	Complete	Jul-12		
		Proactive every other month mainline forestry inspection	Complete	Sep-12		
		Spot mainline tree trimming and removals	Complete	0ct-12		
		Proactive every other month mainline forestry inspection	Complete	Nov-12		
		Replace mainline crossarm from assessment	Complete	Dec-12		
		Spot tree trimming and removals	Complete	Dec-12		
		Proactive every other month mainline forestry inspection	To be completed 2013	1		
	]	Upgrade mainline recloser and customer redistribution project	To be completed 2013	1		
		Comprehensive circuit patrol	To be completed 2013	7		
		Upgrade mainline disconnects to gang operated air break switch	To be completed 2013	1		

Met-Ed				
Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remedial Worl Completed
		Performance was driven by trees non-preventable outages (37%) and an outage caused by a broken	CADESSENT (25%).	
1		Implement proactive every-other-month mainline forestry inspection	Complete	Jan-12
		Proactive every other month mainline forestry inspection	Complete	Jan-12
		Spot mainline tree trimming and removals	Complete	Jan-12
}		Perform engineering: SAIFI improvement study	Complete	Feb-12
		Replace primary underground cable and submersibles in Maple Springs underground residential distribution	Complete	Mar-12
		Proactive every other month mainline forestry inspection	Complete	Mar-12
ĺ		Spot mainline tree triuming and removals	Complete	Apr-12
		Proactive every other month mainline forestry inspection	Complete	May-12
	00757-1	Replace mainline crossarm from assessment	Complete	May-12
Pi 4 C		Spot mainline tree trimming and removals	Complete	Jun-12
Birdsboro		Replace mainline crossarm from assessment	Complete	Jun-12
		Upgrade mainline disconnects to gang operated air break switch	Complete	Jun-12
1		Perform accelerated backbone assessment	Complete	Jun-12
		Perform accelerated three phase assessment	Complete	Jun-12
		Engineering review for the installation of an additional mainline recloser	Complete	Ju⊢12
1		Complete forestry assessment of three phase for SAIFI analysis	Complete	Sep-12
		Proactive every other month mainline forestry inspection	Complete	Sep-12
ļ		Spot mainline tree trimming and removals	Complete	Oct-12
1		Proactive every other month mainline forestry inspection	Complete	Nov-12
		Spot tree trimming and removals	Complete	Dec-12
		Proactive every other month mainline forestry inspection	To be completed 2013	
[		Replace additional mainline crossarms from assessment	To be completed 2013	
		Comprehensive circuit patral	To be completed 2013	
	00764-2	Performance was primarily driven by vehicle accidents (55%), outages of unknown origins (18%), eq	k	ures (8%).
Swatara Hill		Perform accelerated backbone and three phase circuit assessment	Complete	May-12
		Replace deteriorated crossarm	Complete	Nov-12
		Replace deteriorated crossarm	Complete	Nov-12
		Perform accelerated backbone and three phase circuit assessment	To be completed 2013	
		Comprehensive tree trimming	To be completed 2013	

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Met-Ed				
Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Date Remedial Work Completed
		Performance was driven by a single storm on 7/23/12 which contributed 36% of circuit minutes and minutes.	d a cutout failure on 3/25/12 which co	naributed 13% of circuit
		Perform accelerated backbone and three phase assessment	Complete	Jan-12
Shawnee	00895-3	Repair split pole top found on circuit assessment	Complete	Oct-12
Giatrico	00035-5	Correct fuse coordination	Complete	0ct-12
		Comprehensive tree trimming	Complete	0ct-12
1		Perform accelerated backbone and three phase circuit assessment	To be completed 2013	
		Replace porcelain cutouts on circuit backbone with polymer cutouts	To be completed 2013	
		Performance was primarily driven by lightning damage (40%), vehicle accidents (25%), line failure	s (20%) and tree caused outages (9	*
		Review step bank fusing	Complete	Apr-12
		Perform accelerated three phase circuit assessment	Complete	Jun-12
Frystown	68702-2	Replace crossarm and broken insulators	Complete	Jun-12
		Replace deteriorated crossarm	Complete	Dec-12
		Perform accelerated backbone circuit assessment	To be completed 2013	
		Comprehensive circuit patrol	To be completed 2013	
				4
		Install fault indicators at one location	To be completed 2013	

# ATTACHMENT B

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# Substation Annual Infrared Scans

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 Reason	
Penn Power does not have any deficiencies or major deficiencies not corrected within the 7 and 30 day time frames.	
Penelec	
Hot Spot Type Hotspot Description	
Penelec does not have any deficiencies or major deficiencies not corrected within the 7 and 30 day time frames.	
Met-Ed	
Hot Spot Type Hotspot Description. Completion	
Met-Ed does not have any deficiencies or major deficiencies not corrected within the 7 and 30 day time frames.	

## BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Joint 2012 Annual Reliability Report –	:
Pennsylvania Power Company,	:
Pennsylvania Electric Company and	:
Metropolitan Edison Company	:

### **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 first class mail, as follows:

John R. Evans Office of Small Business Advocate Suite 1102, Commerce Building 300 North Second Street Harrisburg, PA 17101 Tanya McCloskey Office of Consumer Advocate 555 Walnut Street – 5<sup>th</sup> Floor Harrisburg, PA 17101-1923

Dated: April 30, 2013

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Counsel for Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company



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PA PUBLIC UTILITY COMMISSION SECRETARY'S BUREAU

