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August 1, 2017

RECEIVED

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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

VIA UNITED PARCEL SERVICE

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

**Re: Joint 2nd Quarter 2017 Reliability Report – Metropolitan Edison Company,
Pennsylvania Electric Company, Pennsylvania Power Company and West Penn
Power Company – Public Version**

Dear Secretary Chiavetta:

Pursuant to 52 Pa. Code § 57.195(d) and (e), enclosed for filing on behalf of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company (collectively, the “Companies”) are two copies of the Joint 2nd Quarter 2017 Reliability Report – Public Version (“Joint Report”). Please date stamp the additional copy and return it in the postage-prepaid envelope provided.

On December 22, 2004, the Companies filed an Application for Protective Order at Docket No. L-00030161. The Application was granted, allowing the Companies to file proprietary versions of the quarterly reliability reports. The Proprietary Version of this Joint Report is being filed under separate cover.

Please feel free to contact me if you have any questions or need additional information regarding this matter.

Sincerely,

Tori L. Giesler

Enclosures

- c: As Per Certificate of Service
- D. Gill – Bureau of Technical Utility Services (via email and first class mail)
- D. Searfoorce - Bureau of Technical Utility Services (via email and first class mail)
- D. Washko – Bureau of Technical Utility Services (via email and first class mail)

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Joint 2nd Quarter 2017 Reliability Report – :
Metropolitan Edison Company, :
Pennsylvania Electric Company :
Pennsylvania Power Company and West :
Penn Power Company – Public Version :**

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 – 5th Floor
Harrisburg, PA 17101-1923

Richard A. Kanaskie
Bureau of Investigation & Enforcement
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

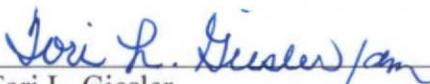
Scott Rubin
Utility Workers Union of America
333 Oak Lane
Bloomsburg, PA 17815-2036

Service by electronic mail, as follows:

David Dulick, General Counsel
David Dulick@ccsenergy.com

Rich Geosits, Manager, Power Delivery
Rich Geosits@ccsenergy.com

Dated: August 1, 2017



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Pennsylvania Electric Company,
Pennsylvania Power Company and
West Penn Power Company

Met-Ed
A FirstEnergy Company

Penelec
A FirstEnergy Company

PennPower
A FirstEnergy Company

**WestPenn
Power**
A FirstEnergy Company



Joint 2017 2nd Quarter Reliability Report

Metropolitan Edison Company,
Pennsylvania Electric Company,
Pennsylvania Power Company, and
West Penn Power Company

Pursuant to 52 Pa. Code § 57.195(d) and (e)

Joint 2nd Quarter 2017 Reliability Report – Metropolitan Edison Company (“Met-Ed”), Pennsylvania Electric Company (“Penelec”), Pennsylvania Power Company (“Penn Power”), and West Penn Power Company (“West Penn”)

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

Major Event(s)

FirstEnergy Company	Customers Affected	Time and Duration of the Event		Cause of the Event	Commission Approval Status
West Penn	77,458	Duration	103 hours, 36 minutes	Thunderstorms and high winds	Approved July 5, 2017
		Start Date/Time	May 1, 2017 13:09		
		End Date/Time	May 5, 2017 20:45		
Penelec	95,607	Duration	124 hours, 10 minutes	Thunderstorms and high winds	Pending
		Start Date/Time	May 1, 2017 11:35		
		End Date/Time	May 6, 2017 15:45		
West Penn	1,665	Duration	43 hours, 5 minutes	Flooding	Pending
		Start Date/Time	June 23, 2017 16:55		
		End Date/Time	June 25, 2017 12:00		

¹ For purposes of this Joint Report, all reliability reporting is based upon the Pennsylvania Public Utility Commission’s definitions for momentary outages and major events pursuant to 52 Pa. Code § 57.192.

Section 57.195(e) (2): Rolling 12-month reliability index values (SAIFI, CAIDI, SAIDI, and if available MAIFI) for the EDC's service territory for the preceding quarter. The report shall include the data used in calculating the indices, namely the average number of customers served, the number of sustained customer interruptions, the number of customers affected, and the customer minutes of interruption. If MAIFI values are provided, the report shall also include the number of customer momentary interruptions.

Reliability Index Values

2Q 2017 (12-Mo Rolling)	Met-Ed			Penelec			Penn Power			West Penn		
	Benchmark	12-Month Standard	12-Month Actual	Benchmark	12-Month Standard	12-Month Actual	Benchmark	12-Month Standard	12-Month Actual	Benchmark	12-Month Standard	12-Month Actual
SAIFI	1.15	1.38	1.50	1.26	1.52	1.81	1.12	1.34	1.34	1.05	1.26	1.25
CAIDI	117	140	121	117	141	188	101	121	129	170	204	159 ²
SAIDI	135	194	181	148	213	340	113	162	173	179	257	198
MAIFI³			0.81			4.25			0.56			
Customers Served⁴	559,577			580,866			162,311			714,289		
Number of Sustained Interruptions	9,870			13,580			3,606			12,067		
Customers Affected	838,082			1,051,307			218,151			894,235		
Customer Minutes	101,448,177			197,572,180			28,087,774			141,745,032		
Number of Customer Momentary Interruptions	452,910			2,454,991			91,183					

² West Penn's CAIDI achieved benchmark performance or better.

³ MAIFI values are not available for West Penn.

⁴ Represents the average number of customers served during the reporting period.

Unique Events Occurring in 2Q 2017:

Penelec

- On May 5, 2017, Penelec was affected by a transmission line source that was interrupted from the New York State Electric & Gas Corporation. This event impacted 12,668 Penelec customers and occurred as a result of other parties' actions that had an unavoidable effect on Penelec that was outside of its control. This event accounted for 9.7 minutes of SAIDI, 445 minutes of CAIDI, and a SAIFI of 0.02

Penn Power

- On May 1, 2017, Penn Power experienced outages from a strong wind storm that impacted a total of 11,249 customers. The "isolate and make safe" portion of Penn Power's restoration activities was both delayed and extended significantly due to proactive steps taken to ensure Penn Power line worker safety following an employee fatality that occurred immediately prior to the weather event. This event accounted for 52 minutes of SAIDI, 754 minutes of CAIDI, and a SAIFI of 0.07.

Section 57.195(e)(3): Rolling 12-month reliability index values (SAIFI, CAIDI, SAIDI, and if available, MAIFI) and other pertinent information such as customers served, number of interruptions, customer minutes interrupted, number of lockouts, and so forth, for the worst performing 5% of the circuits in the system. An explanation of how the EDC defines its worst performing circuits shall be included.

Worst Performing Circuits – Reliability Indices

The methodology used to identify worst performing circuits is based on both System Average Interruption Frequency Index (“SAIFI”) and System Average Interruption Duration Index (“SAIDI”). The methodology consists of the following steps:

1. For each circuit calculate a circuit SAIFI using only distribution-caused outages.
2. Select the worst 20% of circuits based on the highest circuit SAIFI.
3. Rank the selected circuits based on SAIDI using only distribution-caused customer minutes.
4. Select 5% of the circuits based on the highest customer minutes. These circuits are then identified as the worst performing circuits.

Met-Ed, Penelec, Penn Power, and West Penn’s rankings of the 5% Worst Performing Circuits are provided in Attachment A to this report.

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

Worst Performing Circuits – Remedial Actions

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

Section 57.195(e)(5): A rolling 12-month breakdown and analysis of outage causes during the preceding quarter, including the number and percentage of service outages, the number of customers interrupted, and customer interruption minutes categorized by outage cause such as equipment failure, animal contact, tree related, and so forth. Proposed solutions to identified service problems shall be reported.

Outages by Cause

Outages by Cause – Met-Ed

Outage by Cause				
2nd Quarter 2017 12-Month Rolling	Met-Ed			
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages
Equipment failure	21,330,654	2,257	207,321	22.87%
Animal	2,643,553	1,450	38,474	14.69%
Trees off ROW - tree	30,668,388	1,368	161,341	13.86%
Unknown	7,341,676	1,183	79,872	11.99%
Line failure	10,171,685	627	71,335	6.35%
Forced outage	3,680,173	464	67,213	4.70%
Trees off ROW - limb	4,724,515	456	45,929	4.62%
Bird	327,562	451	3,440	4.57%
Trees on ROW	3,763,660	434	17,038	4.40%
Lightning	2,108,958	352	28,091	3.57%
Vehicle	11,046,384	280	66,162	2.84%
Trees - sec/service	320,980	265	987	2.68%
Human error - non-company	923,569	68	13,799	0.69%
Overload	193,602	41	1,870	0.42%
UG dig-up	112,689	31	1,350	0.31%
Object contact with line	417,499	30	2,837	0.30%
Human error - company	117,866	27	8,692	0.27%
Previous lightning	247,468	26	6,959	0.26%
Other electric utility	373,701	21	12,444	0.21%
Customer equipment	11,920	13	65	0.13%
Wind	784,316	9	2,052	0.09%
Fire	56,204	9	227	0.09%
Vandalism	37,588	5	436	0.05%
Other utility - non-electric	43,567	3	148	0.03%
Total	101,448,177	9,870	838,082	100.00%

Proposed Solutions – Met-Ed

Met-Ed analyzes its outage data to develop solutions for improving reliability. The following paragraphs identify the top outage causes for the rolling twelve-month period ending June 30, 2017, and associated actions designed to address these outage causes.

To reduce the likelihood of equipment-caused outages, Met-Ed follows Inspection and Maintenance (“I&M”) programs⁵ that set forth schedules for regular inspections of distribution and substation facilities. These programs are geared towards specific components such as capacitors, poles, circuits, transformers, radio-controlled switches, substations, and reclosers. Equipment identified is repaired or replaced as appropriate.

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

To address outages caused by trees, Met-Ed performs cycle-based tree trimming and enhanced tree trimming. Enhanced trimming removes overhanging trees in Zones 1 and 2,⁶ and also clears cross country rights-of-way with mowing in Zones 1 and 2. Any tree identified during enhanced trimming as the potential cause of a future outage is removed to prevent an interruption of electrical service to Met-Ed’s customers.

Generally speaking, there are a number of other reliability projects that have been identified to help reduce the number of, and limit the duration and impact of, interruptions to customers. These include:

- **Protective devices** – To better ensure the adequate protection of circuits and ultimately minimize outage frequency and duration by reducing the scope of large outages, Met-Ed installs fuses on unprotected segments of distribution circuits.

⁵ Pursuant to 52 Pa. Code § 57.198, every two years an electric distribution company shall file, and receive approval from the Commission of, a biennial plan for the periodic inspection, maintenance, repair and replacement of its facilities. On December 30, 2013, Paul Diskin, Director, Technical Utility Services, issued a letter approving the Company’s biennial inspection, maintenance, repair, and replacement plan effective January 1, 2015 through December 31, 2016. Further, on March 4, 2016 an additional letter was issued approving the plans effective January 1, 2017 – December 31, 2018.

⁶ Zone 1 is defined as the portion of the circuit from the substation breaker to the first protective device. Zone 2 is defined as the three phase conductor and devices after the first protective device.

- **Circuit ties and loops** – To address customers served by radial circuits, Met-Ed continues to build distribution ties and loops between radial sections of its circuits. This allows for circuit switching during outages and enables faster service restoration for customers.
- **Circuit rehabilitation** – Met-Ed continues to perform circuit rehabilitation on select circuits. Specifically, Met-Ed performs inspections to identify equipment replacement needs and then schedules and completes the work.
- **Installation of supervisory control and data acquisition (“SCADA”) devices** – Met-Ed continues to install SCADA to provide communication with circuit breakers, line switches, and reclosers. SCADA enables these devices to be operated remotely which reduces restoration time and ultimately reduces SAIDI, SAIFI, and CAIDI indices.
- **Underground Residential Distribution (“URD”) Cable Replacement** - Met-Ed’s URD Cable Replacement program targets the replacement of bare concentric neutral cable which was manufactured without an insulating jacket around the concentric neutral wires. This design often caused the cable to fail prematurely.
- **Porcelain cutout replacement** – Met-Ed continues to proactively replace porcelain cutouts with polymer cutouts. Failed porcelain cutouts ultimately cause lockouts of reclosers and circuit breakers, as well as other equipment damage.
- **Clusters of customers** – Met-Ed focuses on clusters of customers that experience frequent operations of line protection devices. In addition to enhancing system performance, this focus reduces the frequency of outages at the customer level.

Outages by Cause – Penelec

Outage by Cause				
2nd Quarter 2017 12-Month Rolling	Penelec			
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages
Equipment failure	29,341,473	3,020	280,701	22.24%
Trees off ROW - tree	101,721,012	2,295	269,299	16.90%
Unknown	10,181,505	1,854	86,249	13.65%
Animal	2,541,448	1,269	25,359	9.34%
Line failure	16,154,271	988	119,389	7.28%
Forced outage	5,016,836	963	63,738	7.09%
Lightning	6,915,895	739	55,369	5.44%
Trees - sec/service	693,898	543	1,760	4.00%
Bird	956,897	464	9,200	3.42%
Trees off ROW - limb	6,719,706	441	29,213	3.25%
Vehicle	4,654,298	253	31,466	1.86%
Trees on ROW	1,688,856	167	7,474	1.23%
Other electric utility	5,987,317	109	14,365	0.80%
Human error - non-company	2,761,782	101	24,497	0.74%
Previous lightning	117,827	88	670	0.65%
UG dig-up	89,001	53	386	0.39%
Overload	269,528	44	6,322	0.32%
Human error - company	341,160	42	16,361	0.31%
Object contact with line	500,093	35	5,804	0.26%
Ice	234,207	26	890	0.19%
Customer equipment	24,014	23	185	0.17%
Wind	466,205	23	1,311	0.17%
Vandalism	7,599	15	23	0.11%
Contamination	5,528	11	27	0.08%
Fire	8,219	8	64	0.06%
Other utility - non-electric	169,618	5	1,152	0.04%
Call error	3,987	1	33	0.01%
Total	197,572,180	13,580	1,051,307	100%

Proposed Solutions – Penelec

Penelec analyzes its outage data to develop solutions for improving reliability. The following paragraphs identify the top outage causes for the rolling twelve-month period ending June 30, 2017 and the associated actions designed to address these outage causes.

To reduce the likelihood of equipment-caused outages, Penelec follows I&M programs that set forth schedules for regular inspections of distribution and substation facilities. These programs are geared towards specific components such as capacitors, poles, circuits, transformers, radio-controlled switches, substations, and reclosers. Equipment identified is repaired or replaced as appropriate.

To target outages caused by trees, Penelec performs cycle-based tree trimming, which includes the proactive removal of Ash trees that have been deemed a threat due to the Emerald Ash Borer, and has plans to employ additional tree trimming techniques in 2017.

If, during the investigation of an outage, the troubleshooter cannot accurately identify the cause, that outage is coded as having an unknown cause. To reduce the incidence of outages caused by unknown factors, an outage-by-cause study is used to analyze and develop circuit and system reliability improvement plans. In an effort to limit the number of this type of outage and to identify the cause, troubleshooters are directed to continue to patrol a circuit even after service has been restored as long as those patrols do not interfere with restoration of other customers. For certain outages where the cause is unknown, Engineering conducts post-outage circuit inspections as needed.

Generally speaking, there are a number of other reliability projects that have been identified to help reduce the number of, and limit the duration and impact of, interruptions to customers. These include:

- **Protective devices** - Penelec continues to proactively install additional protective devices on its 34.5 kV circuits. Planning and protection engineers perform a full circuit coordination study to construct and implement fuse protection and coordination recommendations. By reviewing coordination and installing additional protective devices fewer customers will be affected during an outage, and ultimately reduces Penelec's SAIFI performance. The selected circuits are based on overall performance and protection needs.

- **Circuit ties and loops** – To address interruptions experienced by customers served by radial circuits, Penelec continues its plans to build distribution ties and loops between radial sections of its circuits. This allows for circuit switching during outages and enables faster service restoration for customers.
- **Circuit rehabilitation** – Penelec continues to perform circuit rehabilitation on select circuits. Specifically, Penelec performs inspections to identify equipment replacement needs and then schedules and completes the work.
- **Installation of SCADA switches** – Penelec continues to install SCADA to provide communication with circuit breakers and line switches. SCADA enables these devices to be operated remotely, reducing restoration time, and ultimately SAIDI, SAIFI, and CAIDI indices.
- **Porcelain cutout replacement** –Penelec continues to proactively replace porcelain cutouts with polymer. Failed porcelain cutouts ultimately cause lockouts of reclosers and circuit breakers, as well as other equipment damage.
- **Customer Service Improvement (“CSI”) program** – Penelec’s CSI program provides a means to reduce the frequency of outages at the customer level that might not be otherwise addressed when targeting overall system metrics. The CSI program continues to focus on customer complaints as a starting point to analyze clusters of customers that experience frequent or repeated outages. A thorough review and analysis of equipment on a customer’s line is performed by Company engineers to determine whether action is required.
- **Cap and Pin Insulator Replacement program** - Penelec’s Cap and Pin Insulator Replacement program replaces older, brown porcelain cap and pin style substation insulators that are prone to failure. Replacing older insulators improves reliability by reducing the number of outages caused by insulator failure and reduces damage to adjacent equipment when insulators fail.

Outages by Cause – Penn Power

Outage by Cause				
2 nd Quarter 2017 12-Month Rolling	Penn Power			
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages
Trees off ROW - tree	15,369,026	836	53,223	23.18%
Animal	1,425,801	455	15,889	12.62%
Lightning	1,541,932	445	14,176	12.34%
Bird	354,751	371	4,941	10.29%
Equipment failure	2,417,843	349	47,769	9.68%
Line failure	1,756,364	307	21,965	8.51%
Trees off ROW - limb	1,547,936	212	6,539	5.88%
Unknown	897,281	152	22,216	4.22%
Trees - sec/service	121,838	143	490	3.97%
Vehicle	1,698,916	90	13,953	2.50%
Forced outage	399,219	89	10,853	2.47%
Previous lightning	41,042	60	352	1.66%
Overload	136,499	26	1,275	0.72%
Human error - non-company	127,844	17	2,347	0.47%
Object contact with line	59,210	12	332	0.33%
Trees on ROW	12,068	8	65	0.22%
UG dig-up	8,560	8	154	0.22%
Human error - company	21,950	7	389	0.19%
Fire	104,729	5	969	0.14%
Other electric utility	24,599	4	202	0.11%
Customer equipment	12,148	3	12	0.08%
Other utility - non-electric	846	3	8	0.08%
Ice	676	2	7	0.06%
Vandalism	144	1	1	0.03%
Wind	6,552	1	24	0.03%
Total	28,087,774	3,606	218,151	100%

Proposed Solutions – Penn Power

Penn Power analyzes its outage data to develop solutions for improving reliability. The following paragraphs identify the top outage causes for the rolling twelve-month period ending June 30, 2017 and the associated actions designed to address these outage causes.

To address outages caused by trees, Penn Power performs cycle-based tree trimming and enhanced tree trimming that includes the removal of a large number of trees (healthy or not) located outside of the right-of-way.

To address outages caused by animals and birds, Penn Power installs animal guards on equipment that experiences a high frequency of animal and bird related outages. When possible, animal guards are installed at the time service is restored to prevent future outages caused by animals and birds.

To address outages caused by lightning, Penn Power installs lightning arresters and grounding at selected areas on the circuits. In addition, distribution protection coordination reviews are performed to limit the number of customers affected and allow for quicker isolation of affected sections of the circuits.

In addition to the I&M programs that set forth schedules for regular inspections of distribution and substation facilities and are geared towards specific components such as capacitors, poles, circuits, transformers, substations, and reclosers, there are several other reliability projects that have been identified to help reduce the number of and limit the duration and impact of interruptions to customers. These include:

- **Circuit ties, loops and sources** – To improve reliability by reducing long duration outages, Penn Power continues to install new distribution circuit ties and loops and add new sources which create an alternate path from which power is provided to customers affected by an outage.
- **Circuit rehabilitation** - Penn Power continues the rehabilitation of its 69 kV transmission lines which includes the replacement of equipment such as poles, switches, crossarms, insulators and braces. This program targets the reduction of CAIDI and SAIDI.
- **Installation of SCADA switches** – SCADA provides communication with circuit breakers and line switches, and enables these devices to be operated remotely, reducing restoration time and ultimately reducing SAIDI, SAIFI, and CAIDI indices.
- **URD Cable Replacement** – Penn Power's URD Cable Replacement program targets the replacement of bare concentric neutral cable which was manufactured without an

insulating jacket around the concentric neutral wires. This design often caused the cable to fail prematurely.

- **Clusters of customers** – Penn Power focuses on clusters of customers that experience frequent operations of line protection devices. In addition to enhancing system performance, it also provides a means to reduce the frequency of outages at the customer level that might not be otherwise addressed when targeting overall system metrics.

Outages by Cause – West Penn

Outage by Cause				
2 nd Quarter 2017 12-Month Rolling	West Penn			
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Number of Outages
Trees off ROW - tree	59,881,473	2,894	241,642	23.98%
Equipment failure	23,057,683	2,383	171,144	19.75%
Unknown	10,755,140	1,910	97,155	15.83%
Animal	2,291,496	1,116	29,655	9.25%
Line failure	16,597,332	1,096	101,115	9.08%
Forced outage	4,250,552	711	75,684	5.89%
Trees on ROW	6,365,293	399	29,256	3.31%
Bird	591,474	371	7,546	3.07%
Vehicle	8,186,172	334	64,380	2.77%
Trees off ROW - limb	4,373,494	304	29,954	2.52%
Trees - sec/service	281,642	236	1,769	1.96%
Lightning	2,605,759	106	14,198	0.88%
Human error - non-company	1,159,596	65	11,163	0.54%
Human error - company	83,462	37	3,064	0.31%
UG dig-up	198,769	35	1,979	0.29%
Object contact with line	122,396	20	1,330	0.17%
Overload	285,392	15	5,146	0.12%
Customer equipment	98,755	12	2,567	0.10%
Fire	83,478	7	693	0.06%
Switching error	186,066	6	3,687	0.05%
Vandalism	102,320	4	378	0.03%
Other electric utility	182,180	4	637	0.03%
Other utility - non-electric	5,108	2	93	0.02%
Total	141,745,032	12,067	894,235	100%

Proposed Solutions – West Penn

West Penn analyzes its outage data to develop solutions for improving reliability. The following paragraphs identify the top outage causes for the rolling twelve-month period ending June 30, 2017, and the associated actions designed to address these outage causes.

To reduce outages caused by trees, West Penn performs cycle-based tree trimming and continues its program to accelerate the mitigation of trees subject to damage by the Emerald Ash Borer.

To reduce the likelihood of equipment-caused outages, West Penn follows I&M programs that set forth schedules for regular inspections of distribution and substation facilities. These programs are geared towards specific components such as capacitors, poles, circuits, transformers, substations, and reclosers. Equipment identified is repaired or replaced as appropriate.

To reduce the incidence of outages caused by unknown factors, West Penn employs a root cause analysis for all circuit lockouts that includes patrols of circuits where this type of outage has occurred. In addition, field personnel investigate recurring outages on specific sectionalizing devices when the cause of the outages is unknown.

Generally speaking, there are a number of other reliability projects that have been identified to help reduce the number of, and limit the duration and impact of, interruptions to customers. These include:

- **Protective devices** – To better ensure the adequate protection of circuits and ultimately minimize outage frequency and duration by reducing the scope of large outages, West Penn installs new fused cutouts on unprotected circuits.
- **Circuit rehabilitation** - West Penn continues to perform circuit rehabilitation on select circuits. Specifically, West Penn performs inspections to identify equipment replacement needs and then schedules and completes the work. This program focuses on strengthening Zones 1 and 2 by identifying equipment for replacement such as poles, switches, crossarms, insulators, braces, and cutouts.
- **Enhanced rehabilitation** - West Penn targets select Worst Performing Circuits for enhanced rehabilitation, which can include hardware rehabilitation, coordination review, installation of additional protective devices, or recloser installation.

- **Enhanced overcurrent protection and SCADA control** – The enhanced overcurrent protection program installs new electronic reclosers with SCADA control at targeted substations which limits the number of customers affected and allows for remote switching to restore customers more quickly. Adding SCADA control to electronic reclosers in select substations with existing SCADA capabilities provides additional monitoring and also allows for remote switching to restore customers at the circuit level more quickly.
- **Sub-transmission modernization and automation** – The sub-transmission modernization and automation program oversees the installation of SCADA controlled reclosers and switches on the sub-transmission system and also includes automatic air switch modernization. To provide enhanced sectionalizing for larger blocks of customers at the substation source level, West Penn installs electronic reclosers at the substation. This enables West Penn to restore large sections of customers more quickly.
- **URD Cable Replacement** - West Penn's URD Cable Replacement program targets the replacement of bare concentric neutral cable, which was manufactured without an insulating jacket around the concentric neutral wires. This design often caused the cable to fail prematurely.
- **Underground getaway replacement** – The underground getaway replacement program replaces select underground substation exits, also referred to as underground getaways. A getaway is a cable that leads out of the substation to the overhead lines. Specifically, this program targets underground getaways that were installed prior to 1988 and are known to be prone to failure. By replacing these getaways, West Penn will reduce the interruptions to a circuit associated with the cable as well as the long interruption times associated with the replacement.
- **Clusters of customers** - West Penn focuses on clusters of customers that experience frequent operations of line protection devices. This not only aims to enhance system performance, but it also provides a means to reduce frequency of outages at the customer level that might not be otherwise addressed when targeting overall system metrics.

Section 57.195(e) (6): Quarterly and year-to-date information on progress toward meeting transmission and distribution inspection and maintenance goals/objectives (for first, second and third quarter reports only).

Inspection and Maintenance 2017		Met-Ed			Penelec			Penn Power			West Penn		
		Planned	Completed		Planned	Completed		Planned	Completed		Planned	Completed	
		Annual	2Q	YTD	Annual	2Q	YTD	Annual	2Q	YTD	Annual	2Q	YTD
Forestry	Transmission (Miles)	288.34	76.62	141.59	435.17	73.75	214.83	61.67	9	34.59	301.88	46	85.72
	Distribution (Miles)	2,895	409	860	3,792	835	1,365	1,187	317	541	4,589	954	1,890
Transmission	Aerial Patrols	2	1	1	2	1	1	2	1	1	2	1	1
	Groundline	0	0	0	1,863	0	0	680	855	855	1,076	422	422
Substation	Substation Inspections Class A	422	1	212	800	0	400	146	0	73	970	2	488
	Substation Inspections Class B	422	212	212	800	400	400	146	73	73	970	481	483
	Substation Inspections Class C	1,688	426	848	3,200	800	1,600	584	146	292	3,880	969	1,945
	Transformers	246	89	119	553	125	376	107	6	22	517	150	325
	Breakers	110	43	68	272	141	189	25	1	1	402	95	127
	Relay Schemes	270	58	181	300	110	214	45	3	3	160	26	76
Distribution	Capacitors	4,754	6	4,760	8,766	0	8,766	991	0	991	1,308	0	1,308
	Poles	29,514	841	841	41,591	9,773	41,920	10,600	0	10,833	32,856	14,550	29,900
	Reclosers	1,100	129	867	2,569	0	0	814	0	815	3,798	1,623	3,798
	Radio-Controlled Switches	446	171	178	2,578	1,083	1,302	Penn Power has no radio-controlled switches			West Penn has no radio-controlled switches		

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

Section 57.195(e)(7): Quarterly and year-to-date information on budgeted versus actual transmission and distribution operation and maintenance expenditures in total and detailed by the EDC's own functional account code as available. (For first, second and third quarter reports only).

Budgeted vs. Actual T&D Operation & Maintenance Expenditures⁷

Met-Ed T&D O&M – 2Q / YTD June 2017 (\$)						
Transmission						
Category	2Q Actuals	2Q Budget	YTD Actuals	YTD Budget	Annual Budget	
560	Operation Supervision and Engineering	0	0	1,866	0	0
561	Load Dispatching	7,414	161,765	53,269	323,529	647,058
562	Station Expenses	204,568	0	338,091	0	0
563	Overhead Lines Expenses	18,305	15,915	64,664	30,362	33,112
565	Transmission of Electricity by Others	3,268,865	2,288,312	6,517,147	4,546,624	9,193,248
566	Miscellaneous Transmission Expenses	1,086	(1,489)	3,634	(2,577)	(5,372)
567	Rents	17,601	0	114,260	0	0
568	Maintenance Supervision and Engineering	663	0	87,425	0	0
569	Maintenance of Structures	54,294	75,008	117,544	139,607	294,556
570	Maintenance of Station Equipment	110	1,021	520,869	2,042	4,085
571	Maintenance of Overhead Lines	(14,365)	0	259,778	(62,822)	(62,822)
572	Maintenance of Underground Lines	93	0	93	0	0
573	Maintenance of Miscellaneous Transmission Plant	398	0	28,517	0	0
575	Market Administration, Monitoring & Compliance Services	0	0	0	0	0
Transmission Total		3,559,034	2,540,532	8,107,157	4,976,766	10,103,865
Distribution						
Category	2Q Actuals	2Q Budget	YTD Actuals	YTD Budget	Annual Budget	
580	Operation Supervision and Engineering	75,996	(12,662)	140,220	(23,542)	(46,673)
581	Load Dispatching	73,667	76,533	131,815	139,296	284,556
582	Station Expenses	283,069	160,809	370,341	324,171	673,558
583	Overhead Line Expenses	103,685	13,500	142,109	39,935	60,277
584	Underground Line Expenses	0	144,119	0	288,239	576,477
585	Distribution-Street Lighting & Signal System Expenses	0	0	0	0	0
586	Meter Expenses	135,714	153,693	307,388	287,001	610,230
587	Customer Installations Expenses	0	0	0	0	0
588	Miscellaneous Distribution Expenses	1,946,404	2,003,242	3,560,311	3,781,082	7,536,853
589	Rents	65,147	135,218	232,438	270,437	540,873
590	Maintenance Supervision and Engineering	96,984	62,569	166,597	113,327	229,486
591	Maintenance of Structures	1,674	2,370	2,917	4,563	9,197
592	Maintenance of Station Equipment	1,007,831	1,240,247	1,796,858	2,280,971	4,721,647
593	Maintenance of Overhead Lines	5,674,818	6,066,332	12,427,468	11,998,167	23,963,410
594	Maintenance of Underground Lines	660,018	322,029	1,033,603	630,804	1,269,502
595	Maintenance Line Transformer	57,497	67,368	117,366	134,737	269,474
596	Maintenance of Street Lighting and Signal Systems	141,706	65,158	329,583	128,153	257,830
597	Maintenance of Meters	590,539	553,172	1,057,735	1,037,329	2,214,148
598	Maintenance of Miscellaneous Distribution Plant	425,307	131,615	870,684	262,043	721,416
Distribution Total		11,340,058	11,185,312	22,687,432	21,696,712	43,892,259
Met-Ed Total		14,899,091	13,725,844	30,794,589	26,673,478	53,996,125

⁷ Budgets are subject to change.

Penelec						
T&D O&M – 2Q / YTD June 2017 (\$)						
Transmission						
Category	2Q Actuals	2Q Budget	YTD Actuals	YTD Budget	Annual Budget	
560	Operation Supervision and Engineering	0	0	2,595	0	0
561	Load Dispatching	(40,190)	115,255	(8,618)	230,510	461,019
562	Station Expenses	161,598	0	263,220	0	0
563	Overhead Lines Expenses	55,748	2,827	343,704	279,263	355,969
565	Transmission of Electricity by Others	6,727,885	5,464,739	12,891,651	10,859,478	21,918,956
566	Miscellaneous Transmission Expenses	1,634	0	(6,160)	0	0
567	Rents	43,849	43,548	471,960	72,222	167,963
568	Maintenance Supervision and Engineering	20,655	0	146,380	0	0
569	Maintenance of Structures	97,731	81,247	195,091	151,038	319,134
570	Maintenance of Station Equipment	(1,552)	14,999	553,145	29,999	60,000
571	Maintenance of Overhead Lines	(87,742)	(2,957)	644,463	(167,184)	(140,573)
572	Maintenance of Underground Lines	0	0	0	0	0
573	Maintenance of Miscellaneous Transmission Plant	36,084	0	36,443	0	0
575	Market Administration, Monitoring & Compliance Services	0	0	0	0	0
Transmission Total		7,015,701	5,719,658	15,533,875	11,455,325	23,142,469
Distribution						
Category	2Q Actuals	2Q Budget	YTD Actuals	YTD Budget	Annual Budget	
580	Operation Supervision and Engineering	90,355	108,288	177,008	213,326	427,025
581	Load Dispatching	110,392	59,941	199,231	109,162	219,806
582	Station Expenses	125,656	0	220,938	0	0
583	Overhead Line Expenses	11,049	11,162	29,789	26,325	52,827
584	Underground Line Expenses	273,606	241,004	426,641	352,194	779,118
585	Distribution-Street Lighting & Signal System Expenses	0	0	0	0	0
586	Meter Expenses	153,435	154,278	319,241	300,147	616,163
587	Customer Installations Expenses	0	0	0	0	0
588	Miscellaneous Distribution Expenses	2,721,266	2,926,973	5,123,974	5,558,020	11,351,893
589	Rents	323,863	282,929	730,847	565,859	1,131,717
590	Maintenance Supervision and Engineering	89,307	72,101	170,184	130,744	264,742
591	Maintenance of Structures	0	0	0	0	0
592	Maintenance of Station Equipment	1,389,653	1,331,017	2,555,878	2,618,671	5,306,478
593	Maintenance of Overhead Lines	12,124,558	5,908,763	19,884,145	10,869,030	23,361,832
594	Maintenance of Underground Lines	341,931	35,973	625,679	27,312	69,502
595	Maintenance Line Transformer	50,235	58,860	102,551	117,720	235,441
596	Maintenance of Street Lighting and Signal Systems	193,837	563,775	473,270	1,079,179	2,200,704
597	Maintenance of Meters	763,579	651,494	1,333,616	1,290,756	2,569,856
598	Maintenance of Miscellaneous Distribution Plant	446,515	14,582	910,703	28,187	141,458
Distribution Total		19,209,237	12,421,140	33,283,697	23,286,633	48,728,562
Penelec Total		26,224,938	18,140,798	48,817,572	34,741,958	71,871,031

Penn Power						
T&D O&M – 2Q / YTD June 2017 (\$)						
Transmission						
Category	2Q Actuals	2Q Budget	YTD Actuals	YTD Budget	Annual Budget	
560	Operation Supervision and Engineering	441	568	806	1,046	2,131
561	Load Dispatching	1,967	32,533	3,591	64,661	129,496
562	Station Expenses	0	(44)	0	(80)	(188)
563	Overhead Lines Expenses	0	(77)	0	(140)	(327)
565	Transmission of Electricity by Others	1,220,272	1,237,415	2,641,221	2,459,830	4,974,660
566	Miscellaneous Transmission Expenses	884	915	2,265	1,741	3,312
567	Rents	0	0	0	0	0
568	Maintenance Supervision and Engineering	3,612	4,312	6,442	7,821	15,945
569	Maintenance of Structures	5,942	7,657	12,828	14,309	31,967
570	Maintenance of Station Equipment	1,621	762	2,864	1,524	3,047
571	Maintenance of Overhead Lines	(273)	(32,481)	(2,028)	(45,837)	(113,596)
572	Maintenance of Underground Lines	0	0	0	0	0
573	Maintenance of Miscellaneous Transmission Plant	(610)	0	(278)	0	0
575	Market Administration, Monitoring & Compliance Services	0	0	0	0	0
Transmission Total		1,233,857	1,251,561	2,667,710	2,504,874	5,046,448
Distribution						
Category	2Q Actuals	2Q Budget	YTD Actuals	YTD Budget	Annual Budget	
580	Operation Supervision and Engineering	66	0	667	0	0
581	Load Dispatching	0	0	0	0	0
582	Station Expenses	13,240	0	23,350	0	0
583	Overhead Line Expenses	6,266	0	99,460	0	0
584	Underground Line Expenses	58,522	131,861	90,025	263,744	527,329
585	Distribution-Street Lighting & Signal System Expenses	0	0	0	0	0
586	Meter Expenses	19,257	16,887	34,889	32,295	65,503
587	Customer Installations Expenses	0	0	0	0	0
588	Miscellaneous Distribution Expenses	446,916	406,048	931,971	787,622	1,675,198
589	Rents	84,506	79,747	171,314	159,493	318,986
590	Maintenance Supervision and Engineering	27,275	13,663	44,195	25,301	51,223
591	Maintenance of Structures	0	0	0	0	0
592	Maintenance of Station Equipment	244,364	98,731	433,406	198,989	422,770
593	Maintenance of Overhead Lines	2,452,436	2,543,649	5,463,540	5,048,685	10,587,759
594	Maintenance of Underground Lines	55,307	9,810	103,406	19,095	39,446
595	Maintenance Line Transformer	8,180	12,251	14,181	24,503	49,005
596	Maintenance of Street Lighting and Signal Systems	13,298	0	29,548	0	0
597	Maintenance of Meters	177,061	141,249	351,182	280,269	569,682
598	Maintenance of Miscellaneous Distribution Plant	68,809	109,161	159,138	203,757	429,707
Distribution Total		3,675,502	3,563,055	7,950,273	7,043,752	14,736,609
Penn Power Total		4,909,359	4,814,616	10,617,984	9,548,626	19,783,057

West Penn						
T&D O&M – 2Q / YTD June 2017 (\$)						
Transmission						
Category	2Q Actuals	2Q Budget	YTD Actuals	YTD Budget	Annual Budget	
560	Operation Supervision and Engineering	8,692	7,620	17,939	14,126	28,019
561	Load Dispatching	220,651	493,618	385,857	950,980	1,909,320
562	Station Expenses	41,013	138,567	117,483	283,539	564,078
563	Overhead Lines Expenses	46,751	62,889	127,652	114,155	232,165
565	Transmission of Electricity by Others	10,480,106	14,078,042	26,703,644	28,063,344	56,410,511
566	Miscellaneous Transmission Expenses	54,516	53,262	114,072	100,454	263,677
567	Rents	6,297	6,810	36,002	13,621	27,242
568	Maintenance Supervision and Engineering	161,990	122,373	298,901	217,088	433,877
569	Maintenance of Structures	8,232	3,861	15,829	7,300	25,424
570	Maintenance of Station Equipment	740,041	378,608	1,222,485	687,167	1,368,824
571	Maintenance of Overhead Lines	2,659,810	1,380,807	4,390,927	2,765,145	8,314,564
572	Maintenance of Underground Lines	0	0	283	0	0
573	Maintenance of Miscellaneous Transmission Plant	0	0	0	0	0
575	Market Administration, Monitoring & Compliance Services	30	0	39	0	0
Transmission Total		14,428,129	16,726,457	33,431,114	33,216,919	69,577,701
Distribution						
Category	2Q Actuals	2Q Budget	YTD Actuals	YTD Budget	Annual Budget	
580	Operation Supervision and Engineering	72,526	20,120	113,986	41,357	91,738
581	Load Dispatching	562,292	420,023	945,147	838,115	1,570,708
582	Station Expenses	390,388	332,299	681,952	717,337	1,321,663
583	Overhead Line Expenses	182,722	323,869	657,450	697,208	938,409
584	Underground Line Expenses	410,565	335,000	622,027	545,000	1,125,000
585	Distribution-Street Lighting & Signal System Expenses	0	0	0	0	0
586	Meter Expenses	280,195	450,688	524,899	825,658	1,679,034
587	Customer Installations Expenses	0	0	0	0	0
588	Miscellaneous Distribution Expenses	3,511,033	3,529,145	6,999,953	7,335,028	14,532,066
589	Rents	0	0	0	0	0
590	Maintenance Supervision and Engineering	127,829	109,547	216,165	199,459	403,423
591	Maintenance of Structures	0	0	0	0	0
592	Maintenance of Station Equipment	2,450,683	1,677,174	3,898,326	3,212,920	6,416,604
593	Maintenance of Overhead Lines	11,089,830	7,121,496	18,819,247	12,979,961	27,322,843
594	Maintenance of Underground Lines	275,263	266,370	539,930	517,722	679,004
595	Maintenance Line Transformer	36,712	63,028	61,957	126,055	252,110
596	Maintenance of Street Lighting and Signal Systems	227,159	218,058	565,760	418,333	841,835
597	Maintenance of Meters	435,439	322,570	720,035	617,718	1,243,835
598	Maintenance of Miscellaneous Distribution Plant	47,424	57,205	96,820	111,234	285,821
Distribution Total		20,100,058	15,246,591	35,463,653	29,183,104	58,704,092
West Penn Power Total		34,528,186	31,973,048	68,894,767	62,400,023	128,281,793

Section 57.195(e)(8): Quarterly and year-to-date information on budgeted versus actual transmission and distribution capital expenditures in total and detailed by the EDC's own functional account code or FERC account code as available. (For first, second and third quarter reports only).

Budgeted vs. Actual T&D Capital Expenditures^{8, 9}

Met-Ed T&D Capital – 2Q/YTD June 2017 (\$)					
Category	2Q Actuals	2Q Budget	2Q YTD Actuals	2Q YTD Budget	Annual Budget
Capacity	1,024,045	2,778,181	3,741,228	4,917,093	12,234,579
Condition	2,947,913	3,654,699	5,509,398	7,054,953	13,651,818
Facilities	967,006	663,077	1,302,034	833,481	2,234,386
Forced	8,890,592	8,500,298	16,748,254	16,084,996	31,979,369
Meter Related	652,411	749,380	1,368,301	1,474,949	2,915,732
New Business	3,886,764	3,443,422	7,435,262	6,839,278	13,631,743
Other	8,678,038	6,967,543	21,436,611	18,839,606	38,413,081
Reliability	1,934,253	2,478,386	3,860,456	4,818,511	8,844,156
Street Light	318,850	909,914	560,846	1,810,012	3,657,218
Tools & Equipment	254,322	68,229	460,134	136,427	368,064
Vegetation Management	998,156	1,746,763	2,093,809	3,481,827	6,963,021
Met-Ed Total	30,552,352	31,959,892	64,516,332	66,291,132	134,893,168

Penelec T&D Capital – 2Q/YTD June 2017 (\$)					
Category	2Q Actuals	2Q Budget	2Q YTD Actuals	2Q YTD Budget	Annual Budget
Capacity ¹⁰	137,381	2,467,411	(1,475,355)	4,278,853	8,849,826
Condition	1,948,197	2,358,669	3,778,340	4,401,236	9,099,508
Facilities	1,130,163	1,464,518	1,604,915	1,726,325	3,996,302
Forced	15,034,602	12,373,400	26,255,248	22,978,654	54,075,329
Meter Related	1,819	1,078,924	875,625	2,142,192	4,328,578
New Business	1,630,171	2,435,940	5,415,767	4,822,899	9,706,256
Other	16,085,242	12,878,738	24,420,535	24,436,491	45,849,832
Reliability	3,631,145	2,207,869	7,751,995	4,083,444	8,682,198
Street Light	320,701	411,452	879,185	824,398	1,677,133
Tools & Equipment	185,196	112,858	340,798	223,430	531,684
Vegetation Management	4,811,579	5,451,095	8,662,396	10,845,502	22,031,962
Penelec Total	44,916,198	43,240,874	78,509,449	80,763,424	168,828,609

⁸ Budgets are subject to change.

⁹ General note: Capital reported on Generally Accepted Accounting Principles (GAAP) basis.

¹⁰ YTD actuals reflect a credit that was recorded to reimburse Penelec for costs incurred in 2016.

Penn Power					
T&D Capital – 2Q/YTD June 2017 (\$)					
Category	2Q Actuals	2Q Budget	2Q YTD Actuals	2Q YTD Budget	Annual Budget
Capacity	1,257,205	1,293,273	1,728,130	2,829,112	3,344,902
Condition	161,952	1,455,315	480,055	2,468,588	5,130,764
Facilities	41,044	32	448,813	319,077	319,077
Forced	4,554,287	2,827,056	8,994,699	4,761,230	10,123,480
Meter Related	76,629	85,828	167,935	169,901	344,211
New Business	833,926	348,526	1,841,026	763,057	1,460,104
Other	2,808,580	3,489,537	5,123,742	7,053,517	12,007,035
Reliability	2,629,516	2,932,659	4,020,894	4,549,661	11,326,433
Street Light	178,735	377,275	395,238	732,591	1,361,986
Tools & Equipment	29,633	3,603	56,318	7,176	25,275
Vegetation Management	948,836	898,248	1,744,545	1,790,240	3,581,290
Penn Power Total	13,520,343	13,711,352	25,001,396	25,444,151	49,024,556

West Penn					
T&D Capital – 2Q/YTD June 2017 (\$)					
Category	2Q Actuals	2Q Budget	2Q YTD Actuals	2Q YTD Budget	Annual Budget
Capacity	1,714,387	3,835,112	2,133,802	6,757,973	10,423,339
Condition	3,825,682	3,986,465	7,252,858	6,409,960	12,595,548
Facilities	2,130,065	1,029,322	2,563,101	1,250,889	4,040,053
Forced	11,435,720	6,683,539	19,356,261	12,600,096	25,147,542
Meter Related	671,365	733,568	1,342,990	1,450,228	2,902,668
New Business	5,132,652	6,596,926	10,023,827	13,432,897	25,816,980
Other	5,415,080	8,789,198	13,267,335	16,430,910	50,392,586
Reliability	5,247,259	5,366,635	8,957,496	8,268,818	31,804,963
Street Light	2,958,997	3,173,435	5,176,806	5,740,889	11,119,986
Tools & Equipment	456,529	383,639	1,246,150	766,963	1,956,383
Vegetation Management	7,309,227	7,015,368	14,318,947	14,126,535	29,255,825
West Penn Total	46,296,963	47,593,207	85,639,573	87,236,158	205,455,873

Section 57.195(e) (9): Dedicated staffing levels for transmission and distribution operation and maintenance at the end of the quarter, in total and by specific category (for example, linemen, technician, and electrician).¹¹

Staffing Levels

Met-Ed 2017												
Department	Position	Staffing Level				Staff Added in Quarter			Staff Lost in Quarter			Plan to Hire in 2018 ¹⁴
		1Q	2Q	3Q	4Q	New Hire – Experienced	New Hire – PSI Student	Other ¹²	Retirement	Voluntary Separation	Other ¹³	
Distribution	Line Leader	53	50						1		2	
	Line Troubleshooter	30	36					11			5	
	Lineman	115	126				13	9			11	
Substation	Substation Leader	16	14					3			5	
	Substation Employee	49	58				4	10			5	
Transmission	Line Leader	1	2					1				
	Lineman	6	5								1	
Total		270	291				17	34	1		29	

¹¹ As ordered on March 30, 2015 at Docket Nos. D-2014-2365991, D-2014-2365992, D-2014-2365993, and D-2014-2365994, *Implementation Plan of the Focused Management Audit of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company* (Appendix A) (5): FirstEnergy is directed to provide additional detail as described below in the staff reporting section in the Quarterly Reliability Reports. For each staff member added, provide information on whether they were a new hire, if they are already at the journeyman, or other experienced level of training. For each staff member lost, provide the reason for the loss (retirement, voluntary separation, etc.). The number of staff in each category that the Company is planning to hire in the next calendar year.

¹² Includes transfers, promotions, and promotions within a position.

¹³ Includes transfers, involuntary separations, promotions, and promotions within a position.

¹⁴ Hiring plan to be provided annually in the 4Q report.

Penelec 2017												
Department	Position	Staffing Level				Staff Added in Quarter			Staff Lost in Quarter			Plan to Hire in 2018 ¹⁷
		1Q	2Q	3Q	4Q	New Hire – Experienced	New Hire – PSI Student	Other ¹⁵	Retirement	Voluntary Separation	Other ¹⁶	
Distribution	Line Leader	77	70						3		4	
	Line Troubleshooter	63	61			4		4			10	
	Lineman	94	119				25	13		1	12	
Substation	Substation Leader	30	30									
	Substation Employee	35	40				5	3			3	
Transmission	Line Leader	2	3					2		1		
	Lineman	4	11					8			1	
Total		305	334			4	30	30	3	2	30	

¹⁵ Includes transfers, promotions, and promotions within a position.

¹⁶ Includes transfers, involuntary separations, promotions, and promotions within a position.

¹⁷ Hiring plan to be provided annually in the 4Q report.

Penn Power 2017												
		Staffing Level				Staff Added in Quarter			Staff Lost in Quarter			Plan to Hire in 2018 ²⁰
Department	Position	1Q	2Q	3Q	4Q	New Hire – Experienced	New Hire – PSI Student	Other ¹⁸	Retirement	Voluntary Separation	Other ¹⁹	
Distribution	Line Leader	23	23									
	Line Troubleshooter	8	7								1	
	Lineman	40	50				7	6			3	
Substation	Substation Leader	4	5					2			1	
	Substation Employee	14	16				2	3	2		1	
Transmission	Line Leader	1	1									
	Lineman	4	4			1					1	
Total		94	106			1	9	11	2		7	

¹⁸ Includes transfers, promotions, and promotions within a position.

¹⁹ Includes transfers, involuntary separations, promotions, and promotions within a position.

²⁰ Hiring plan to be provided annually in the 4Q report.

West Penn 2017												
		Staffing Level				Staff Added in Quarter			Staff Lost in Quarter			Plan to Hire in 2018 ²³
Department	Position	1Q	2Q	3Q	4Q	New Hire – Experienced	New Hire – PSI Student	Other ²¹	Retirement	Voluntary Separation	Other ²²	
Distribution	Line Leader	62	65					4			1	
	Line Troubleshooter	68	66					4	1		5	
	Lineman	85	100				22	9			16	
Substation	Substation Leader	14	13								1	
	Substation Employee	64	70				5	8	1		6	
Transmission	Line Leader	0	0									
	Lineman	2	2									
Total		295	316				27	25	2		29	

²¹ Includes transfers, promotions, and promotions within a position.
²² Includes transfers, involuntary separations, promotions, and promotions within a position.
²³ Hiring plan to be provided annually in the 4Q report.

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

Contractor Expenditures

Contractor expenses are billed on a lump sum basis and as such, hourly information is not available.

This portion of the report is confidential.

Section 57.195(e) (11): Monthly call-out acceptance rate for transmission and distribution maintenance workers presented in terms of both the percentage of accepted calls-out and the amount of time it takes the EDC to obtain the necessary personnel. A brief description of the EDC's call-out procedure should be included when appropriate.

Call-out Acceptance Rate

Call-out acceptance rate, expressed as a percentage, is calculated by dividing the number of workers accepting by the total number of calls.

This portion of the report is confidential.

Call-out Response

This portion of the report is confidential.

ATTACHMENT A

Worst Performing Circuits - Reliability Indices

Met-Ed													
Circuit Rank	Substation	Circuit	District	Average Customers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI	MAIFI
1	S Nazareth	00809-3	Easton	3,209	54	3	2,915,678	14,019	5.23	908.59	4.37	207.98	1.18
2	Bath Sub	00873-3	Easton	2,124	63	1	1,929,586	9,679	3.46	908.47	4.56	199.36	0.99
3	Mountain Substation	00744-4	Dillsburg	1,818	71	0	1,430,251	6,045	2.56	786.72	3.33	236.6	1.00
4	Birchwood Sub	00623-3	Stroudsburg	1,327	35	3	1,059,277	5,878	1.90	798.25	4.43	180.21	0.00
5	Shawnee Sub	00899-3	Stroudsburg	1,722	55	1	1,053,558	8,908	1.89	611.82	5.17	118.27	1.38
6	Allen Sub	00501-4	Dillsburg	1,986	35	3	1,034,426	7,338	1.85	520.86	3.69	140.97	0.00
7	Birdsboro	00757-1	Reading	1,885	74	0	1,026,466	3,816	1.84	544.54	2.02	268.99	1.01
8	Friedensburg Sub	00769-1	Reading	2,049	63	1	1,015,969	6,045	1.82	495.84	2.95	168.07	1.00
9	Lynnville Sub	00735-1	Hamburg	1,255	43	4	1,011,376	6,213	1.81	805.88	4.95	162.78	0.00
10	Moselem Sub	00779-1	Reading	1,774	25	3	976,720	5,974	1.75	550.57	3.37	163.5	0.00
11	Clearfield Subst	00631-3	Easton	1,887	36	1	913,766	4,446	1.64	484.24	2.36	205.53	0.00
12	S Hamb Sub	00741-1	Hamburg	1,583	67	4	896,902	7,875	1.61	566.58	4.97	113.89	0.00
13	Shawnee Sub	00860-3	Stroudsburg	3,194	45	1	866,766	8,124	1.55	271.37	2.54	106.69	0.96
14	Swatara Hill Sub	00764-2	Lebanon	1,436	31	0	825,716	3,274	1.48	575.01	2.28	252.2	0.00
15	South Lebanon Sub	00780-2	Lebanon	1,241	26	1	816,108	5,192	1.46	657.62	4.18	157.19	1.43
16	Newberry Sub	00576-4	York	1,779	86	0	777,743	6,565	1.39	437.18	3.69	118.47	0.69
17	Lickdale Substation	00625-2	Lebanon	1,000	62	0	761,327	1,799	1.36	761.33	1.8	423.19	18.96
18	Frystown Sub	00701-2	Lebanon	1,167	61	1	716,140	3,805	1.28	613.66	3.26	188.21	1.22
19	Belfast Sub	00849-3	Easton	2,052	9	1	715,723	9,417	1.28	348.79	4.59	76	0.99
20	Wind Gap Sub	00600-3	Easton	1,711	33	1	681,674	3,845	1.22	398.41	2.25	177.29	0.00
21	Birchwood Sub	00624-3	Stroudsburg	2,017	41	4	677,649	12,030	1.21	335.97	5.96	56.33	4.36
22	Bernville Sub	00787-1	Hamburg	1,712	72	0	664,223	3,053	1.19	387.98	1.78	217.56	18.14
23	Northwood Sub	00821-3	Easton	1,706	13	3	658,612	5,553	1.18	386.06	3.25	118.6	0.13
24	Windsor	00795-4	York	1,028	86	0	647,321	2,619	1.16	629.69	2.55	247.16	2.53
25	Baldy Sub	00736-1	Reading	848	44	1	594,771	2,902	1.07	701.38	3.42	204.95	0.00
26	Baldy Sub	00738-1	Reading	1,252	25	1	586,741	2,119	1.05	468.64	1.69	276.9	0.00
27	Germantown Sub	00757-4	Hanover	1,431	27	1	581,338	3,227	1.04	406.25	2.26	180.15	1.12
28	Shawnee Sub	00895-3	Stroudsburg	3,733	60	1	574,687	5,563	1.03	153.95	1.49	103.31	0.46
29	S Hamb Sub	00801-1	Hamburg	2,077	42	1	573,987	3,721	1.03	276.35	1.79	154.26	0.00

Met-Ed													
Circuit Rank	Substation	Circuit	District	Average Customers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI	MAIFI
30	Dillsburg Substation	00748-4	Dillsburg	1,784	58	0	545,603	2,574	0.98	305.83	1.44	211.97	0.00
31	Birchwood Sub	00622-3	Stroudsburg	1,851	23	3	516,756	7,801	0.93	279.18	4.21	66.24	0.00
32	Glenside	00535-1	Reading	1,122	20	2	505,175	2,675	0.91	450.25	2.38	188.85	0.00
33	Glendon	00819-3	Easton	1,260	7	1	495,926	2,728	0.89	393.59	2.17	181.79	1.00
34	Flying Hills Sub	00776-1	Reading	1,475	26	1	483,470	2,921	0.87	327.78	1.98	165.52	1.00
35	Taxville	00575-4	York	2,175	38	2	482,028	4,646	0.86	221.62	2.14	103.75	1.00
36	East Prospect	00765-4	York	1,820	44	3	478,785	3,868	0.86	263.07	2.13	123.78	0.74
37	Windsor	00797-4	York	1,542	83	0	475,826	2,376	0.85	308.58	1.54	200.26	0.00
38	Lynnville Sub	00737-1	Hamburg	1,062	48	1	468,313	2,325	0.84	440.97	2.19	201.42	0.00
39	Menges Mills	00543-4	Hanover	1,502	26	1	467,200	3,078	0.84	311.05	2.05	151.79	0.84

Penelec													
Circuit Rank	Substation	Circuit	District	Average Customers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI	MAIFI
1	Tiffany	00440-65	Montrose	1,548	42	2	4,627,050	9,552	7.97	2989.05	6.17	484.41	10.07
2	East Sayre	00518-61	Towanda	1,080	45	1	4,622,024	3,842	7.96	4279.65	3.56	1203.03	0.44
3	Warren South	00220-41	Warren	2,898	112	0	3,345,502	16,004	5.76	1154.42	5.52	209.04	3.76
4	N Meshoppen Tran	00534-65	Montrose	884	38	1	2,657,540	2,766	4.58	3006.27	3.13	960.79	1.12
5	Union City Sub	00206-43	Erie	2,772	122	3	2,088,658	9,386	3.60	753.48	3.39	222.53	9.16
6	Russell Hill	00282-65	Montrose	1,114	53	1	1,900,126	3,063	3.27	1705.68	2.75	620.35	5.99
7	Lake Como	00787-65	Montrose	872	43	1	1,849,865	2,055	3.18	2121.40	2.36	900.18	4.00
8	Marienville	00328-51	Oil City	1,197	67	0	1,776,516	3,703	3.06	1484.14	3.09	479.75	7.36
9	Wyalusing Sub	00532-62	Towanda	709	35	2	1,649,982	2,901	2.84	2327.20	4.09	568.76	25.02
10	East Towanda	00525-62	Towanda	675	36	0	1,406,393	1,542	2.42	2083.55	2.28	912.06	3.80
11	North Towanda	00521-62	Towanda	873	53	5	1,371,661	3,626	2.36	1571.20	4.15	378.28	2.55
12	Lake Como	00788-65	Montrose	632	31	0	1,346,906	1,383	2.32	2131.18	2.19	973.90	36.41
13	Mansfield	00559-63	Mansfield Pa	506	35	5	1,323,311	3,620	2.28	2615.24	7.15	365.56	26.60
14	East Pike	00096-13	Indiana	2,588	31	1	1,281,925	8,397	2.21	495.33	3.24	152.66	2.39
15	Knox	00323-51	Oil City	1,327	53	1	1,215,643	3,921	2.09	916.08	2.95	310.03	5.05
16	Brookville	00125-23	Dubois	751	36	1	1,202,308	4,664	2.07	1600.94	6.21	257.78	2.71
17	Lake Como	00786-65	Montrose	468	21	0	1,179,304	1,197	2.03	2519.88	2.56	985.22	16.49
18	Grover	00527-63	Towanda	1,081	75	0	1,134,358	1,882	1.95	1049.36	1.74	602.74	4.14
19	Springboro	00237-52	Meadville	2,793	83	1	1,133,970	14,653	1.95	406.00	5.25	77.39	1.92
20	Monroeton	00716-62	Towanda	225	8	2	1,018,323	687	1.75	4525.88	3.05	1482.28	2.96
21	Elk Run	00622-23	Dubois	1,036	37	0	1,018,218	1,902	1.75	982.84	1.84	535.34	5.56
22	Dushore	00528-62	Towanda	305	13	3	1,016,592	1,002	1.75	3333.09	3.29	1014.56	0.30
23	Blairsville East	00081-13	Indiana	1,532	27	5	1,010,471	6,280	1.74	659.58	4.10	160.90	6.35
24	Bradford South	00106-42	Bradford	1,184	36	0	985,328	3,541	1.70	832.20	2.99	278.26	0.56
25	Curryville	00644-71	Altoona	1,808	49	2	959,094	4,251	1.65	530.47	2.35	225.62	2.72
26	Natl Forge Sw Sta	00577-41	Warren	1,123	60	0	951,034	6,371	1.64	846.87	5.67	149.28	1.82

Penelec													
Circuit Rank	Substation	Circuit	District	Average Customers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI	MAIFI
27	Erie East	00234-31	Erie	1,050	65	0	924,177	4,027	1.59	880.17	3.84	229.50	8.12
28	N Meshoppen Tran	00437-65	Montrose	656	32	2	906,042	3,091	1.56	1381.16	4.71	293.12	6.74
29	Osceola	00318-63	Mansfield Pa	710	13	0	905,886	1,428	1.56	1275.90	2.01	634.37	3.22
30	Union City Sub	00208-43	Erie	1,762	70	3	901,790	5,585	1.55	511.80	3.17	161.47	20.26
31	Timblin	00103-23	Dubois	721	44	6	833,532	5,610	1.43	1156.08	7.78	148.58	21.60
32	Titusville Sub	00387-51	Oil City	715	30	0	821,911	1,446	1.41	1149.53	2.02	568.40	5.85
33	Oakland	00132-65	Montrose	295	10	1	818,383	975	1.41	2774.18	3.31	839.37	5.00
34	South Troy Sub	00560-63	Towanda	227	26	1	816,710	1,299	1.41	3597.84	5.72	628.72	8.23
35	Philipsburg	00164-22	Philipsburg	2,129	42	0	813,159	6,641	1.40	381.94	3.12	122.45	7.51
36	East Hickory	00201-41	Warren	334	26	5	795,797	2,194	1.37	2382.63	6.57	362.72	15.05
37	South Mansfield	00619-63	Mansfield Pa	517	21	1	790,190	1,322	1.36	1528.41	2.56	597.72	18.73
38	Milroy	00128-81	Lewistown	1,712	43	0	762,127	3,028	1.31	445.17	1.77	251.69	0.78
39	Mount Union	00154-82	Lewistown	1,143	32	4	757,837	5,301	1.30	663.02	4.64	142.96	21.86
40	Utica Junction	00318-51	Oil City	838	54	0	748,118	1,838	1.29	892.74	2.19	407.03	2.78
41	N Meshoppen Tran	00531-65	Montrose	312	26	3	744,614	1,227	1.28	2386.58	3.93	606.86	23.76
42	Edgewood	00089-13	Indiana	877	28	1	737,454	2,784	1.27	840.88	3.17	264.89	7.10
43	Tunkhannock	00533-65	Montrose	1,228	51	2	710,286	4,994	1.22	578.41	4.07	142.23	36.60
44	Wysox	00657-62	Towanda	308	18	2	678,709	1,101	1.17	2203.60	3.57	616.45	5.67
45	Tionesta Sw St	00498-51	Oil City	470	56	3	662,094	2,653	1.14	1408.71	5.64	249.56	10.19
46	Logan	00700-81	Lewistown	1,053	42	0	645,779	3,170	1.11	613.28	3.01	203.72	3.84
47	Lewis Run	00409-42	Bradford	727	33	0	607,186	1,477	1.05	835.19	2.03	411.09	4.59
48	Hepburnia	00778-21	Clearfield	673	24	1	590,236	1,191	1.02	877.02	1.77	495.58	0.39
49	Thompson	00442-65	Montrose	643	32	2	585,341	1,864	1.01	910.33	2.90	314.02	40.13
50	Dubois	00137-23	Dubois	2,826	84	1	573,124	6,442	0.99	202.80	2.28	88.97	2.94
51	Erie South	00259-31	Erie	2,019	55	0	569,333	3,947	0.98	281.99	1.95	144.24	15.66
52	Fairview East	00216-34	Erie	679	13	2	567,134	2,792	0.98	835.25	4.11	203.13	22.27

Penelec													
Circuit Rank	Substation	Circuit	District	Average Customers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI	MAIFI
53	Pemberton	00096-82	Altoona	414	31	0	553,462	1,047	0.95	1336.86	2.53	528.62	6.86
55	Glory	00106-13	Indiana	261	14	0	551,260	821	0.95	2112.11	3.15	671.45	0.00
54	Madera	00166-22	Philipsburg	2,146	70	0	541,542	6,041	0.93	252.35	2.82	89.64	7.10
56	North Warren	00207-41	Warren	1,368	57	1	515,492	3,673	0.89	376.82	2.68	140.35	3.41
57	Page Road	00445-43	Erie	683	32	0	507,869	1,572	0.87	743.59	2.30	323.07	5.08
58	Emlenton	00121-51	Oil City	566	26	2	502,062	2,630	0.86	887.04	4.65	190.90	4.30
59	Somerset	00030-12	Somerset	2,392	27	0	498,828	5,860	0.86	208.54	2.45	85.12	7.87
60	Tiffany	00435-65	Montrose	553	23	2	497,658	1,572	0.86	899.92	2.84	316.58	17.46
61	Thompson	00446-65	Montrose	430	20	0	478,308	990	0.82	1112.34	2.30	483.14	23.86
62	Sykesville	00726-23	Dubois	698	23	1	472,037	1,610	0.81	676.27	2.31	293.19	1.80
63	East Hickory	00200-41	Warren	459	26	1	464,445	2,214	0.80	1011.86	4.82	209.78	19.44

Penn Power													
Circuit Rank	Substation	Circuit	District	Average Customers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI	MAIFI
1	Camp Reynolds	W-134	Clark	1,741	99	1	1,435,880	3,410	8.85	824.74	1.959	421.1	0.0
2	Stoneboro	W-132	Clark	1,069	69	0	1,160,774	4,525	7.15	1,085.85	4.233	256.5	0.0
3	Hadley	W-195	Clark	905	52	0	1,019,788	1,399	6.28	1,126.84	1.546	728.9	0.0
4	Leesburg	D-452	New Castle	701	37	1	972,076	1,188	5.99	1,386.70	1.695	818.2	0.0
5	Perry	W-156	Clark	1,058	52	0	665,812	2,169	4.10	629.31	2.050	307.0	0.0
6	McDowell	W-121	Clark	701	42	2	555,678	1,969	3.42	792.69	2.809	282.2	0.0
7	Seneca	W701	Zelienople	2,009	51	1	542,581	2,876	3.34	270.08	1.432	188.7	0.0
8	McDowell	W-120	Clark	1,056	44	1	529,201	1,783	3.26	501.14	1.688	296.8	0.0
9	Hermitage	W-260	Clark	2,405	68	1	468,419	3,975	2.89	194.77	1.653	117.8	0.0

West Penn ²⁴												
Circuit Rank	Substation	Circuit	District	Average Customers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI
1	Rutan	Bristoria	Jefferson	1,188	97	3	3,849,203	9,010	5.4	3,240	7.58	427
2	Piney Fork	Stoltz	Charleroi	2,157	37	3	1,505,930	8,282	2.1	698	3.84	182
3	North Fayette	Beechcliff	McDonald	2,167	27	1	1,320,474	7,077	1.8	609	3.27	187
4	Westraver	Pittsburgh Coal	Charleroi	1,913	32	1	1,178,779	6,011	1.6	616	3.14	196
5	Smithton	Smithton	Charleroi	982	45	0	1,109,068	3,369	1.6	1,129	3.43	329
6	Donegal	Donegal	Pleasant Valley	929	42	1	1,087,355	2,133	1.5	1,170	2.30	510
7	Saltsburg	Saltsburg	Arnold	1,404	45	2	1,007,606	6,198	1.4	718	4.41	163
8	Avella	W Middletown	Washington Pa	1,146	50	0	999,719	4,116	1.4	872	3.59	243
9	Smith	Florence	McDonald	804	50	2	895,457	3,271	1.3	1,114	4.07	274
10	Emporium	Emporium Jct	St Marys	572	31	1	864,121	2,268	1.2	1,511	3.97	381
11	Cooperstown	Twin Willows	Butler	1,479	33	1	859,506	3,119	1.2	581	2.11	276
12	Huntingdon	Shawtown	Jeannette	1,756	23	3	858,328	6,738	1.2	489	3.84	127
13	Franklin	Rogersville	Jefferson	840	38	0	843,351	1,677	1.2	1,004	2.00	503
14	Henry Clay	Markleysburg	Uniontown	1,103	35	0	824,763	2,432	1.2	748	2.20	339
15	Krendale	Unionville	Butler	1,281	38	2	808,590	4,210	1.1	631	3.29	192
16	Amity	Banetown	Washington Pa	1,507	54	0	778,667	2,409	1.1	517	1.60	323
17	Fort Palmer	West Fairfield	Latrobe	974	61	0	724,909	2,537	1.0	744	2.60	286
18	Hempfield	Cool Valley	Jeannette	1,021	40	0	712,471	3,856	1.0	698	3.78	185
19	Bethlen	Laughlintown	Latrobe	1,095	54	2	703,085	3,590	1.0	642	3.28	196
20	Mateer	Dime Rd	Arnold	1,200	57	0	670,452	2,476	0.9	559	2.06	271
21	Cecil	Murray Hill	Boyce	1,985	24	5	665,285	10,546	0.9	335	5.31	63
22	Bethel Park	Dashwood	Boyce	2,153	11	2	663,355	4,880	0.9	308	2.27	136
23	Frazier	Perry	Pleasant Valley	740	20	0	661,883	1,820	0.9	894	2.46	364
24	Thompson Farm	Oakwood	State College	1,066	8	6	654,529	6,144	0.9	614	5.76	107
25	Driftwood	Driftwood	St Marys	973	29	0	645,980	2,122	0.9	664	2.18	304
26	Robbins	Balkan	Jeannette	1,616	13	0	645,828	2,606	0.9	400	1.61	248
27	Butler	Center Ave	Butler	1,665	24	1	641,956	3,454	0.9	386	2.07	186
28	Superior	Culmerville	Arnold	1,189	24	1	626,437	3,840	0.9	527	3.23	163

²⁴ MAIFI values not available for West Penn.

West Penn ²⁴												
Circuit Rank	Substation	Circuit	District	Average Customers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI
29	Cecil	Bishop	Boyce	1,582	35	1	612,981	5,216	0.9	387	3.30	118
30	Bethlen	Darlington	Latrobe	1,243	65	1	611,961	3,187	0.9	492	2.56	192
31	Donegal	Bear Rocks	Pleasant Valley	1,278	40	1	610,351	3,787	0.9	478	2.96	161
32	Hilliards	Hilliards	Butler	899	31	0	601,375	2,091	0.8	669	2.33	288
33	Smithton	Yukon	Charleroi	1,308	25	0	597,226	2,124	0.8	457	1.62	281
34	Donegal	Buchanan	Pleasant Valley	1,111	33	1	592,925	1,789	0.8	534	1.61	331
35	Harwick	Harmar	Arnold	957	13	2	592,371	3,192	0.8	619	3.34	186
36	Bethlen	Laurel Valley	Latrobe	1,410	67	0	582,437	2,774	0.8	413	1.97	210
37	Sewickley	Herminie	Jeannette	1,147	29	3	580,089	5,241	0.8	506	4.57	111
38	Murrysville	Wallace Lane	Arnold	737	35	1	577,753	2,706	0.8	784	3.67	214
39	Lake Lynn-Union	Fancy Hill	Uniontown	935	26	1	572,852	2,357	0.8	613	2.52	243
40	Avella	Penowa	McDonald	668	21	2	572,279	2,965	0.8	857	4.44	193

ATTACHMENT B

Worst Performing Circuits – Remedial Actions

As ordered on March 30, 2015 at Docket Nos. D-2014-2365991, D-2014-2365992, D-2014-2365993, and D-2014-2365994, *Implementation Plan of the Focused Management Audit of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company* (Appendix A)(1): FirstEnergy is directed to provide additional detail in its reporting of the 5% of worst performing circuits in its Commission Quarterly Reliability Reports to highlight those circuits that appear multiple times on Quarterly Reliability Reports, but not necessarily in four quarters in a calendar year. For each Quarterly Reliability Report filed pursuant to 52 Pa. Code § 57.195, this additional detail shall include highlighting those worst performing circuits that have appeared in two or more Quarterly Reliability Reports in the past four quarters.

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
1	S. Nazareth	00809-3	<i>Performance was driven by line failure (49%) and trees off ROW (35%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Forestry Zone 1 aerial patrol	Complete	Jul-16	
			Perform accelerated backbone and three phase circuit assessment	Complete	Dec-16	
			Replace/repair high priority items identified during circuit assessment	Complete	Apr-17	
			Replace switch	Complete	Apr-17	
			Overhead circuit inspection	To be completed 2017	40%	
			Replace polymer insulators identified on circuit	To be completed 2017	50%	
			Replace/repair high priority items identified during circuit assessment	To be completed 2017	50%	
2	Bath	00873-3	<i>Performance was driven by an unknown outage (65%) and forced outages (15%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Install Supervisory Control and Data Acquisition (SCADA) switch	Complete	Oct-16	
			Install Supervisory Control and Data Acquisition (SCADA) recloser	Complete	Oct-16	
			Perform accelerated backbone and three phase circuit assessment	Complete	Dec-16	
3	Mountain	00744-4	<i>Performance was driven by trees off ROW (81%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Upgrade main line GOAB T3-744 to EMS radio controlled MOAB with faulted circuit indicators	Complete	Aug-16	
			Replace/repair high priority items identified during circuit patrol	Complete	Feb-17	
			Mid-cycle forestry inspection	Complete	Mar-17	
			Remove trees identified during mid-cycle forestry inspection	Complete	Apr-17	
			Replace poles and repair damage caused by trees	To be completed 2017	99%	
Remove trees identified during forestry inspection	To be completed 2017	0%				

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
4	Birchwood	00623-3	<i>Performance was driven by line failure (55%) and trees off ROW (21%)</i>			
			Perform accelerated backbone and three phase circuit assessment	Complete	Dec-16	
5	Shawnee	00899-3	<i>Performance was driven by trees off ROW (81%).</i>			4Q 2016 1Q 2017 2Q 2017
			Forestry Zone 1 aerial patrol	Complete	Jul-16	
			Overhead circuit inspection	Complete	Apr-17	
			On cycle tree trimming	To be completed 2017	40%	
6	Allen	00501-4	<i>Performance was driven by equipment failures (68%), vehicle (15%) and trees off ROW (12%).</i>			1Q 2017 2Q 2017
			Overhead circuit inspection	Complete	Oct-16	
			Pole was replaced and equipment repaired	Complete	Mar-17	
			Replace/repair high priority items identified during underground circuit patrol	Complete	Mar-17	
			Replace/repair high priority items identified during overhead circuit patrol	To be completed 2017	0%	
7	Birdsboro	00757-1	<i>Performance was driven by two trees off ROW (71%).</i>			1Q 2017 2Q 2017
			Proactive every-other-month main line forestry inspection	Complete	Aug-16	
			Install additional Supervisory Control and Data Acquisition (SCADA) switches and reclosers	Complete	Aug-16	
			Targeted tree trimming to improve reliability	Complete	Oct-16	
			Replace porcelain cutouts on circuit three phase with polymer cutouts	Complete	Nov-16	
			Tap recloser replacement	Complete	Mar-17	
			Targeted overhead circuit inspection	Complete	Mar-17	
			Replace additional porcelain cutouts on circuit three phase with polymer cutouts	Complete	Jun-17	
			Enhanced three phase tree trimming	To be completed 2017	86%	
			Targeted mainline circuit rehabilitation	To be completed 2017	50%	

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
8	Friedensburg	00769-1	<i>Performance was driven by trees off ROW (45%) and vehicle (38%).</i>			4Q 2016 1Q 2017 2Q 2017
			Replace crossarms from inspection	Complete	Jan-17	
			Repair or replace pole top from inspection	Complete	Jan-17	
			Replace crossarms from inspection	Complete	Mar-17	
			Upgrade mainline reclosers	Complete	Mar-17	
			Targeted forestry inspection	Complete	Mar-17	
			Targeted forestry inspection	To be completed 2017	0%	
9	Lynnville	00735-1	<i>Performance was driven by two outages during storms (55%) and trees off ROW (22%).</i>			1Q 2017 2Q 2017
			Engineering circuit coordination review	Complete	Aug-16	
			Mainline recloser replacement	Complete	Nov-16	
			Circuit coordination improvements	Complete	Nov-16	
			Replace tap recloser	Complete	Feb-17	
			Replace crossarms from inspection	Complete	Jun-17	
			Overhead circuit inspection	To be completed 2017	90%	
			Replace crossarm from inspection	To be completed 2017	50%	
10	Moselem	00779-1	<i>Performance was driven by wind (70%) and line failures (24%).</i>			1Q 2017 2Q 2017
			Repair mainline conductor	Complete	Dec-16	
			Resag mainline conductor	Complete	Jan-17	
			Replace mainline poles	Complete	Feb-17	
11	Clearfield	00631-3	<i>Performance was driven by trees off ROW (57%) and vehicle (37%).</i>			4Q 2016 1Q 2017 2Q 2017
			On cycle tree trimming	To be completed 2017	0%	

Met-Ed							
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters	
12	South Hamburg	00741-1	<i>Performance was driven by trees off ROW (42%), equipment failures (31%) and lightning (16%).</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Targeted mainline forestry inspection	Complete	Aug-16		
			Targeted tree trimming and removals to improve reliability	Complete	Sep-16		
			Targeted forestry inspection	Complete	Oct-16		
			Targeted overhead circuit inspection	Complete	Oct-16		
			Targeted tree removals to improve reliability	Complete	Oct-16		
			Install additional fault indicators	Complete	Nov-16		
			Targeted mainline forestry inspection	Complete	Feb-17		
			Overhead circuit inspection	To be completed 2017	99%		
			Install additional mainline recloser	To be completed 2017	50%		
			Replace porcelain cutouts on circuit backbone with polymer cutouts	To be completed 2017	25%		
13	Shawnee	00860-3	<i>Performance was driven by trees off ROW (74%).</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Install Supervisory Control and Data Acquisition (SCADA) on recloser	Complete	Nov-16		
			Perform accelerated backbone and three phase circuit assessment	Complete	Dec-16		
			Overhead circuit inspection	Complete	Mar-17		
			Enhanced three phase tree trimming	To be completed 2017	50%		
14	Swatara Hill	00764-2	<i>Performance was driven by trees off ROW (60%) and line failures (23%).</i>				1Q 2017 2Q 2017
			Spot tree trimming	Complete	Jul-16		
			Replace failed underground cable	Complete	Jul-16		
			Overhead circuit inspection	Complete	Feb-17		
			Tree trimming	To be completed 2017	35%		
			SCADA control devices to be installed	To be completed 2017	38%		
			Porcelain cutouts to be replace with polymers	To be completed 2017	22%		
			Construct circuit tie	To be completed 2017	0%		
			Main line rehab	To be completed 2017	0%		
			Enhanced three phase tree trimming	To be completed 2017	35%		

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
15	South Lebanon	00780-2	<i>Performance was driven by trees off ROW (67 %) and vehicle (20%).</i>			4Q 2016 1Q 2017 2Q 2017
			Spot tree trimming	Complete	Oct-16	
			Circuit reconfiguration	To be completed 2017	15%	
16	Newberry	00576-4	<i>Performance was driven by trees off ROW (85%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Replace porcelain cutouts on recloser backbone with polymer cutouts	Complete	Aug-16	
			Install additional Supervisory Control and Data Acquisition (SCADA) switch	Complete	Nov-16	
			Mid-cycle backbone and three phase forestry inspection	Complete	Nov-16	
			Perform accelerated backbone and three phase circuit assessment	Complete	Nov-16	
			Targeted mainline circuit rehabilitation	To be completed 2017	40%	
			Enhanced three phase tree trimming	To be completed 2017	77%	
			Overhead circuit inspection	Complete	May-17	
17	Lickdale	00625-2	<i>Performance was driven by trees off ROW (71%) and unknown (14%).</i>			4Q 2016 1Q 2017 2Q 2017
			Spot tree trimming	Complete	Oct-16	
18	Frystown	00701-2	<i>Performance was driven by equipment failures (43%), line failures (33%) and unknown (17%).</i>			1Q 2017 2Q 2017
			Install fault indicators	Complete	Mar-17	
			Corrected recloser operation	Complete	Mar-17	
			Replace a misoperating sectionalizer by a recloser	Complete	Jun-17	
19	Belfast	00849-3	<i>Performance was driven by line failure (69%) and vehicle (19%).</i>			4Q 2016 1Q 2017 2Q 2017
			On cycle tree trimming	Complete	Jan-17	
20	Wind Gap	00600-3	<i>Performance was driven by vehicle (68%) and animals (14%).</i>			
			Replace recloser	Complete	Mar-17	
			On cycle tree trimming	To be completed 2017	0%	
21	Birchwood	00624-3	<i>Performance was driven by trees off ROW (39%), vehicle (35%) and equipment failure (15%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Perform accelerated backbone and three phase circuit assessment	Complete	Dec-16	
			Replace/repair high priority items identified during circuit assessment	Complete	Feb-17	
			Install additional Supervisory Control and Data Acquisition (SCADA) switch	To be completed 2017	70%	

Met-Ed							
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters	
22	Bernville	00787-1	<i>Performance was driven by trees on ROW (32%), trees off ROW (15%) and outages caused by line and equipment failures (30%).</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Targeted forestry inspection	Complete	Aug-16		
			Targeted forestry inspection	Complete	Sep-16		
			Targeted tree trimming to improve reliability	Complete	Nov-16		
			Install Supervisory Control and Data Acquisition (SCADA) switch	Complete	Nov-16		
			Targeted overhead circuit inspection	Complete	Dec-16		
			Replace crossarm from inspection	Complete	May-17		
			Overhead circuit inspection	To be completed 2017	26%		
On cycle tree trimming	To be completed 2017	0%					
23	Northwood	00821-3	<i>Performance was driven by vehicle (78%).</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Perform accelerated backbone and three phase circuit assessment	Complete	Dec-16		
			Replace crossarms	To be completed 2017	50%		
24	Windsor	00795-4	<i>Performance was driven by Human Error-Non Company (35%), and Trees off Row (23%).</i>				
			Repair Damage due to human error (customer brought down tree)	Jun-17	100%		
			On cycle tree trimming	To be completed 2017	0%		
25	Baldy	00736-1	<i>Performance was driven by line and equipment failures (64%) and trees off ROW (19%).</i>				4Q 2016 1Q 2017 2Q 2017
			Repair pole tops from inspection	Complete	Sep-16		
			Upgrade mainline recloser	Complete	Jan-17		
			Replace mainline poles	Complete	Feb-17		
			On cycle tree trimming	To be completed 2017	59%		
Insulator repair from inspection	To be completed 2017	50%					
26	Baldy	00738-1	<i>Performance was driven by trees off ROW (42%) and an object contact with line (40%).</i>				1Q 2017 2Q 2017
			Overhead circuit inspection	Complete	Nov-16		
			Replace crossarms from inspection	Complete	Jan-17		
			Replace arresters from inspection	Complete	Jun-17		
			Replace arresters from inspection	To be completed 2017	50%		
On cycle tree trimming	To be completed 2017	98%					

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
27	Germantown	00757-4	<i>Performance was driven by vehicle (80%) and line failures (12%).</i>			4Q 2016 1Q 2017 2Q 2017
			Overhead circuit inspection	Complete	Oct-16	
			On cycle tree trimming	Complete	Dec-16	
			Replace the vehicle contact pole and make associated repairs at the time of restoration	Complete	Dec-16	
			Replace/repair high priority items identified during circuit patrol	Complete	Mar-17	
			Relocate underground exit	To be completed 2017	99%	
28	Shawnee	00895-3	<i>Performance was driven by vehicle (36%), trees off ROW (26%) and line failure (20%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Install additional Supervisory Control and Data Acquisition (SCADA) recloser	Complete	Jul-16	
			On cycle tree trimming	Complete	Oct-16	
			Perform accelerated backbone and three phase circuit assessment	Complete	Dec-16	
			Overhead circuit inspection	Complete	May-17	
			Replace porcelain cutouts on circuit three phase with polymer cutouts	To be completed 2017	50%	
			Targeted mainline circuit rehabilitation	To be completed 2017	50%	
			Enhanced three phase tree trimming	To be completed 2017	30%	
			Install additional Supervisory Control and Data Acquisition (SCADA) switches	To be completed 2017	0%	
			Create circuit tie	To be completed 2017	50%	
29	South Hamburg	00801-1	<i>Performance was driven by trees off ROW (60%), equipment failures (21%) and vehicle (16%).</i>			4Q 2016 1Q 2017 2Q 2017
			Upgrade mainline reclosers	Complete	Jul-16	
			On cycle tree trimming	Complete	Aug-16	
			Replace crossarms from inspection	Complete	Dec-16	
			Engineering circuit coordination review	Complete	Dec-16	
			Circuit coordination improvements	Complete	Jan-17	
			Targeted forestry inspection	Complete	Jun-17	

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
30	Dillsburg	00748-4	<i>Performance was driven by trees off ROW (77%).</i>			
			Overhead circuit inspection	Complete	Oct-16	
			Post storm three phase forestry inspection	Complete	Jun-17	
			Perform tree work identified during post storm forestry inspection	Complete	Jun-17	
			Replace/repair high priority items identified during overhead circuit patrol	To be completed 2017	50%	
31	Birchwood	00622-3	<i>Performance was driven by trees off ROW (41%) and unknown outages (37%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			On cycle tree trimming	Complete	Oct-16	
			Perform accelerated backbone and three phase circuit assessment	Complete	Dec-16	
			Replace switch	To be completed 2017	50%	
32	Glenside	00535-1	<i>Performance was driven by an outage during a wind event (53%) and UG equipment failure (16%).</i>			1Q 2017 2Q 2017
			Repair mainline guy wire	Complete	Feb-17	
			Upgrade mainline underground distribution cable and equipment	Complete	Jan-17	
			Replace spacers in mainline spacer cable section	To be completed 2017	50%	
33	Glendon	00819-3	<i>Performance was driven by equipment failure (99%).</i>			
			Forestry Zone 1 aerial patrol	Complete	Jul-16	
			On cycle tree trimming	To be completed 2017	0%	
34	Flying Hills	00776-1	<i>Performance was driven by vehicle (36%), trees off ROW (26%) and an underground line failure (12%).</i>			3Q 2016 2Q 2017
			Targeted overhead circuit inspection	Complete	Jul-16	
			On cycle tree trimming	Complete	Nov-16	
			Upgrade main line recloser	Complete	Nov-16	
			Replace mainline arrester from overhead inspection	Complete	Mar-17	
			Repair/replace pole from inspection	Complete	Jun-17	
			Repair/replace poles from inspection	To be completed 2017	50%	
			Install additional Supervisory Control and Data Acquisition (SCADA) switches	To be completed 2017	50%	
Create circuit tie	To be completed 2017	50%				

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
35	Taxville	00575-4	<i>Performance was driven by vehicle (91%).</i>			
			Perform circuit protection review	To be completed 2017	5%	
36	East Prospect	00765-4	<i>Performance was driven by equipment failure (49%), trees off ROW (30%) and tornado (49%).</i>			
			Repair equipment failure during storm.	Complete	Feb-17	
			On cycle tree trimming	To be completed 2017	0%	
			Overhead circuit inspection	To be completed 2017	0%	
37	Windsor	00797-4	<i>Performance was driven by trees off ROW (50%).</i>			4Q 2016 1Q 2017 2Q 2017
			Upgrade reclosers	Complete	Sep-16	
			On cycle tree trimming	To be completed 2017	21%	
38	Lynnville	00737-1	<i>Performance was driven by outages caused by vehicle accidents (43%) and trees off ROW (35%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Overhead circuit inspection	Complete	Mar-17	
			Replace crossarm from inspection (location #1)	Complete	Jun-17	
			Replace crossarm from inspection (location #2)	To be completed 2017	50%	
			Replace insulator from inspection	To be completed 2017	50%	
39	Menges Mills	00543-4	<i>Performance was driven by trees off ROW (56%) and vehicle (36%).</i>			3Q 2016 4Q 2016 2Q 2017
			Replace pole	Complete	Jul-16	
			Repair damage caused by tree	Complete	Aug-16	
			Zone 1 circuit patrol	Complete	Nov-16	
			On cycle tree trimming	To be completed 2017	60%	

Met-Ed					
Unranked circuits appearing 2 or more quarters in the last 4 quarters					
Substation	Circuit	Q3 2016	Q4 2016	Q1 2017	Q2 2017
Belfast Sub	00817-3	X	X	X	
Carsonia Sub	00764-1	X	X	X	
Collins Substation	00761-2	X	X		
Crossroads Sub	00728-4	X	X	X	
Fox Hill Subst	00850-3	X	X		
Glendon	00805-3	X	X	X	
Leesport Sub	00812-1	X	X	X	
North Bangor	00814-3	X	X	X	
North Cornwall Sub	00610-2	X	X	X	
North Lebanon	00712-2	X	X		
Shawnee Sub	00837-3	X	X	X	
Shawnee Sub	00822-3	X		X	
South Lebanon Sub	00772-2	X	X		
Swatara Hill Sub	00763-2	X	X		
Weisenberg	00602-1	X	X		

Met-Ed				
Unranked circuits with remedial actions scheduled to be or recently completed				
Substation	Circuit	Remedial Action Planned	Status of Remedial Work	Progress of Remedial Work Completed
Annville	00743-2	Enhanced three phase tree trimming	Complete	Jun-17
		Targeted mainline circuit rehabilitation	To be completed 2017	0%
Barto	00705-1	Enhanced three phase tree trimming	Complete	Apr-17
		Replace porcelain cutouts on circuit three phase with polymer cutouts	To be completed 2017	80%
		Install Supervisory Control and Data Acquisition (SCADA) switches and recloser	To be completed 2017	50%
Belfast	00817-3	Install Supervisory Control and Data Acquisition (SCADA) on recloser	To be completed 2017	50%
		Install Supervisory Control and Data Acquisition (SCADA) switch	To be completed 2017	50%
		Replace/repair high priority items identified during circuit assessment		
		Install fault indicators	To be completed 2017	80%
Bern Church	00789-1	Enhanced three phase tree trimming	To be completed 2017	97%
		Targeted mainline circuit rehabilitation	To be completed 2017	0%
		Eliminate two off-road line sections	To be completed 2017	0%
Birdsboro	00756-1	Install additional Supervisory Control and Data Acquisition (SCADA) switches	To be completed 2017	25%
		Targeted mainline circuit rehabilitation	To be completed 2017	25%
		Create circuit tie	To be completed 2017	25%
		Enhanced three phase tree trimming	To be completed 2017	0%
Collins	00761-2	Replace fuse with recloser	To be completed 2017	15%
		Install animal guarding	To be completed 2017	5%
		Install fault indicators	To be completed 2017	50%
Fox Hill	00816-3	Enhanced three phase tree trimming	Complete	May-17
		Create circuit ties and loops ²⁵	To be completed 2019	0%
		Install Supervisory Control and Data Acquisition (SCADA) switches and reclosers	To be completed 2017	0%
Leesport	00811-1	Replace porcelain cutouts on circuit three phase with polymer cutouts	To be completed 2017	0%
		Enhanced three phase tree trimming	To be completed 2017	48%
		Targeted mainline circuit rehabilitation	To be completed 2017	0%

²⁵ Project was listed with a 2016 completion date but deferred to 2019.

Met-Ed				
Unranked circuits with remedial actions scheduled to be or recently completed				
Substation	Circuit	Remedial Action Planned	Status of Remedial Work	Progress of Remedial Work Completed
North Bangor	00813-3	Targeted mainline circuit rehabilitation	To be completed 2017	50%
		Enhanced three phase tree trimming	To be completed 2017	25%
North Bangor	00826-3	Enhanced three phase tree trimming	To be completed 2017	0%
North Cornwall	00610-2	Spot tree trimming	To be completed 2017	0%
		Install fuses	To be completed 2017	50%
		Repair equipment failure	To be completed 2017	0%
North Hanover	00509-4	On cycle tree trimming	Complete	Feb-17
North Lebanon	00712-2	On cycle tree trimming	To be completed 2017	94%
South Lebanon	00772-2	Repair/replace recloser from inspection	To be completed 2017	0%
Shawnee	00822-3	Targeted mainline circuit rehabilitation	To be completed 2017	30%
		Enhanced three phase tree trimming	To be completed 2017	0%
Shawnee	00837-3	Overhead circuit inspection	Complete	Apr-17
		Install Supervisory Control and Data Acquisition (SCADA) switch	To be completed 2017	70%
Snydersville	00621-3	Enhanced three phase tree trimming	To be completed 2017	0%
		Targeted mainline circuit rehabilitation	To be completed 2017	0%
Swatara Hill	00763-2	Overhead circuit inspection	To be completed 2017	0%
		Repair items found during inspection	To be completed 2017	0%
		Construct circuit tie	To be completed 2017	0%
Violet Hill	00527-4	On cycle tree trimming	Complete	Jan-17
Weisenberg	00602-1	Replace broken tap recloser	To be completed 2017	50%
		Install additional tap fuses	To be completed 2017	50%
		On cycle tree trimming	To be completed 2017	39%
West Boyertown	00714-1	Replace main line switch	Complete	Jan-17
		Replace crossarms from inspection	Complete	Mar-17
		Repair ground wire connections from inspection	Complete	Feb-17
		On cycle tree trimming	Complete	10%

Met-Ed				
Unranked circuits with remedial actions scheduled to be or recently completed				
Substation	Circuit	Remedial Action Planned	Status of Remedial Work	Progress of Remedial Work Completed
Whiteford	00687-4	Replace a pole and repair equipment	Complete	Jan-17
		Replace/repair high priority items identified during circuit patrol	Complete	Feb-17
Yorkana	00708-4	Replace porcelain cutouts on circuit three phase with polymer cutouts	To be completed 2017	99%
		Enhanced three phase tree trimming	To be completed 2017	0%

Penelec						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
1	Tiffany	00440-65	<i>Performance was driven by trees off ROW (84%) and equipment failure (14%).</i>			1Q 2017 2Q 2017
			Repair equipment failure	Complete	Jan-17	
			Repair equipment failure	Complete	Feb-17	
			Repair equipment failure	Complete	Mar-17	
			Repair damage caused by trees	Complete	May-17	
2	East Sayre	00518-61	<i>Performance was driven by trees off ROW (98%).</i>			
			Repair damage caused by trees	Complete	May-17	
3	Warren South	00220-41	<i>Performance was driven by trees off ROW (68%), equipment failure (14%) and vehicle accident (10%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Aug-16	
			On cycle tree trimming	Complete	Nov-16	
			Repair damage caused by a vehicle	Complete	Jan-17	
			Repair damage caused by trees	Complete	May-17	
			Repair equipment failure	Complete	Jun-17	
4	N Meshoppen Tran	00534-65	<i>Performance was driven by trees off ROW (98%).</i>			
			On cycle tree trimming	Complete	Aug-16	
			Repair damage caused by trees	Complete	May-17	
5	Union City	00206-43	<i>Performance was driven by trees off ROW (76%) and lightning (15%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Create circuit tie with Morgan Street substation	Complete	Aug-16	
			Repair damage caused by lightning during a storm	Complete	Sep-16	
			On cycle tree trimming	Complete	Dec-16	
			Repair damage caused by trees during a storm	Complete	Mar-17	
			Repair damage caused by trees	Complete	May-17	
6	Russell Hill	00282-65	<i>Performance was driven by trees off ROW (93%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Jul-16	
			Repair damage caused by trees	Complete	Sep-16	
			On cycle tree trimming	Complete	Oct-16	
			Repair damage caused by trees	Complete	May-17	

Penelec						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
7	Lake Como	00787-65	<i>Performance was driven by line failure (79%) and trees off ROW (12%).</i>			3Q 2016 4Q 2016 2Q 2017
			Repair equipment failure	Complete	Jul-16	
			Repair damage caused by trees during a storm	Complete	Nov-16	
			Porcelain cutout replacement	Complete	Apr-17	
			Repair line failure	Complete	May-17	
8	Marienville	00328-51	<i>Performance was driven by trees off ROW (90%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by lightning during a storm	Complete	Aug-16	
			Repair damage caused by trees	Complete	Sep-16	
			Repair damage caused by trees during a storm	Complete	Mar-17	
			Repair damage caused by trees	Complete	May-17	
			Repair damage caused by trees during a storm	Complete	May-17	
			Install new radio controlled switch	To be completed 2017	0%	
9	Wyalusing sub	00532-62	<i>Performance was driven by trees off ROW (77%) and equipment failure (12%).</i>			1Q 2017 2Q 2017
			Repair equipment failure during a storm	Complete	Jan-17	
			Repair damage caused by trees during a storm	Complete	Jun-17	
			Repair damage caused by trees	Complete	May-17	
			Targeted circuit rehabilitation	To be completed 2017	0%	
			Circuit inspection	To be completed 2017	0%	
10	East Towanda	00525-62	<i>Performance was driven by trees off ROW (74%) and wind (20%).</i>			
			Repair damage caused by trees	Complete	May-17	
			Repair damage caused by wind	Complete	May-17	
11	North Towanda	00521-62	<i>Performance was driven by trees off ROW (85%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Jul-16	
			Repair equipment failure	Complete	Mar-17	
			Repair equipment failure	Complete	Apr-17	
			Repair damage caused by trees	Complete	May-17	

Penelec						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
12	Lake Como	00788-65	<i>Performance was driven by line failure (78%) and trees off ROW (16%).</i>			
			Circuit inspection	Complete	Sep-16	
			Repair line failure	Complete	May-17	
13	Mansfield	00559-63	<i>Performance was driven by trees off ROW (63%), equipment failure (21%), and line failure(11%).</i>			1Q 2017 2Q 2017
			Repair damage caused by a vehicle	Complete	Sep-16	
			Repair damage caused by trees during a storm	Complete	Jan-17	
			Repair equipment failure	Complete	Mar-17	
			Repair equipment failure	Complete	Mar-17	
			Repair line failure	Complete	May-17	
			Repair damage caused by trees	Complete	May-17	
			Repair equipment failure	Complete	May-17	
14	East Pike	00096-13	<i>Performance was driven by lightning (43%) and equipment failure (42%).</i>			4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by lightning	Complete	Jul-16	
			Repair damage caused by trees during a storm	Complete	Jul-16	
			Repair equipment failure	Complete	Nov-16	
			Repair equipment failure	Complete	Mar-17	
15	Knox	00323-51	<i>Performance was driven by trees off ROW (87%).</i>			4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Aug-16	
			Repair line failure	Complete	Nov-16	
			Repair damage caused by trees during a storm	Complete	Mar-17	
			Repair damage caused by trees	Complete	May-17	
16	Brookville	00125-23	<i>Performance was driven by trees off ROW (67%) and equipment failure (23%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Porcelain cutout replacement	Complete	Aug-16	
			Repair equipment failure	Complete	Sep-16	
			Repair equipment failure	Complete	Jan-17	
			Repair damage caused by trees during a storm	Complete	Feb-17	
			Repair damage caused by trees during a storm	Complete	Mar-17	

Penelec						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
17	Lake Como	00786-65	<i>Performance was driven by line failure (65%) and trees off ROW (34%).</i>			3Q 2016 1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Oct-16	
			Repair line failure	Complete	May-17	
			Repair damage caused by trees	Complete	May-17	
18	Grover	00527-63	<i>Performance was driven by trees off ROW (75%) and animal contact (14%).</i>			3Q 2016 2Q 2017
			Repair damage caused by trees	Complete	May-17	
			Repair damage from animal contact	Complete	May-17	
19	Springboro	00237-52	<i>Performance was driven by trees off ROW (43%), animal contact (25%) and lightning (17%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by lightning	Complete	Jul-16	
			Circuit inspection	Complete	Sep-16	
			Repair damage from animal contact	Complete	Oct-16	
			Repair damage caused by trees	Complete	Dec-16	
			Repair damage caused by trees during a storm	Complete	Jun-17	
			Targeted circuit rehabilitation	Complete	Apr-17	
20	Monroeton	00716-62	<i>Performance was driven by trees off ROW (97%).</i>			1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Jul-16	
			Repair damage caused by ice	Complete	Jan-17	
			Repair damage caused by trees during a storm	Complete	Jan-17	
			Repair damage caused by trees	Complete	May-17	
21	Elk Run	00622-23	<i>Performance was driven by trees off ROW (67%) and line failure (23%)</i>			
			Repair damage caused by trees during a storm	Complete	Oct-16	
			Repair damage caused by trees	Complete	Jul-16	
			Repair damage caused by trees	Complete	Jan-17	
			Repair line failure	Complete	Mar-17	
			Repair damage caused by trees	Complete	May-17	
22	Dushore	00528-62	<i>Performance was driven by trees off ROW (98%).</i>			
			Repair damage caused by trees	Complete	May-17	
			Repair damage caused by trees	Complete	May-17	
			Repair damage caused by trees	Complete	May-17	

Penelec						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
23	Blairsville East	00081-13	<i>Performance was driven by trees off ROW (35%), lightning (33%), and animal contact (17%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage from lightning during a storm	Complete	Jul-16	
			Repair damage from animal contact	Complete	Aug-16	
			Repair damage caused by trees	Complete	Aug-16	
			Repair damage caused by trees	Complete	May-17	
Circuit inspection	Complete	May-17				
24	Bradford South	00106-42	<i>Performance was driven by trees off ROW (67%) and equipment failure (29%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair equipment failure	Complete	Dec-16	
			Repair equipment failure	Complete	Jan-17	
			Repair equipment failure	Complete	Jan-17	
			Repair damage caused by trees during a storm	Complete	Mar-17	
Repair damage caused by trees	Complete	May-17				
25	Curryville	00644-71	<i>Performance was driven by line failure (29%), trees off ROW (27%), and equipment failure (26%).</i>			
			Repair line failure	Complete	Oct-16	
			Repair equipment failure	Complete	Nov-16	
			Repair damage caused by lightning	Complete	Jun-17	
			Repair line failure	Complete	Feb-17	
Repair damage caused by trees	Complete	May-17				
26	Natl Forge Sw Sta	00577-41	<i>Performance was driven by trees off ROW (89%).</i>			1Q 2017 2Q 2017
			Repair damage caused by trees	Complete	Feb-17	
			Repair damage caused by trees	Complete	May-17	
			Repair damage caused by trees during a storm	Complete	Jun-17	
			Repair damage caused by trees during a storm	Complete	Jun-17	

Penelec							
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters	
27	Erie East	00234-31	<i>Performance was driven by trees off ROW (51%), equipment failure (20%), and animal contact (15%).</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by animal contact	Complete	Aug-16		
			Repair equipment failure	Complete	Aug-16		
			Repair equipment failure	Complete	Nov-16		
			Repair damage caused by trees	Complete	Mar-17		
			Repair damage caused by trees during a storm	Complete	Jun-17		
			Circuit inspection	To be completed 2017	0%		
			On cycle tree trimming	To be completed 2017	91%		
28	N Meshoppen Tran	00437-65	<i>Performance was driven by trees off ROW (46%), vehicle accident (32%) and line failure (21%).</i>				1Q 2017 2Q 2017
			Repair line failure	Complete	Aug-16		
			Repair line failure	Complete	Jan-17		
			Repair damage caused by vehicle	Complete	Feb-17		
			Repair damage caused by trees	Complete	May-17		
			Repair damage caused by vehicle	Complete	Jun-17		
29	Osceola	00318-63	<i>Performance was driven by trees off ROW (91%).</i>				1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Oct-16		
30	Union City	00208-43	<i>Performance was driven by trees off ROW (53%) and equipment failure (30%).</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Aug-16		
			Repair equipment failure	Complete	Aug-16		
			Circuit inspection	Complete	Oct-16		
			Porcelain cutout replacement	Complete	Jan-17		
			Repair damage caused by trees during a storm	Complete	Mar-17		

Penelec						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
31	Timblin	00103-23	<i>Performance was driven by trees off ROW (54%) and equipment failure (26%).</i>			1Q 2017 2Q 2017
			Porcelain cutout replacement	Complete	Aug-16	
			Repair damage caused by trees during a storm	Complete	Feb-17	
			Repair damage caused by trees	Complete	Feb-17	
			Repair damage caused by trees during a storm	Complete	Feb-17	
			Repair damage caused by trees	Complete	May-17	
			Repair equipment failure	Complete	Jun-17	
			Targeted circuit rehabilitation	To be completed 2017	0%	
32	Titusville sub	00387-51	<i>Performance was driven by trees off ROW (98%).</i>			
			Repair damage caused by trees	Complete	May-17	
			Repair damage caused by trees	Complete	May-17	
			Repair damage caused by trees	Complete	Jun-17	
33	Oakland	00132-65	<i>Performance was driven by trees off ROW (94%).</i>			
			Repair damage caused by trees	Complete	May-17	
34	South Troy Sub	00560-63	<i>Performance was driven by trees off ROW (81%).</i>			
			Repair damage caused by trees	Complete	May-17	
35	Philipsburg	00164-22	<i>Performance was driven by equipment failure (54%) and line failure (24%).</i>			1Q 2017 2Q 2017
			Repair equipment failure	Complete	Mar-17	
			Repair line failure	Complete	Mar-17	
			Repair equipment failure	Complete	Jun-17	
36	East Hickory	00201-41	<i>Performance was driven by trees off ROW (89%).</i>			1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Sep-16	
			Repair line failure	Complete	Feb-17	
			Repair damage caused by trees during a storm	Complete	Mar-17	
			Repair damage caused by trees	Complete	May-17	
			Repair damage caused by trees during a storm	Complete	Jun-17	

Penelec						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
37	South Mansfield	00619-63	<i>Performance was driven by trees off ROW (73%) and line failure (21%).</i>			
			Repair line failure	Complete	May-17	
			Repair damage caused by trees	Complete	May-17	
38	Milroy	00128-81	<i>Performance was driven by trees off ROW (93%).</i>			
			Repair damage caused by trees	Complete	May-17	
39	Mount Union	00154-82	<i>Performance was driven by vehicle accident (45%), line failure (31%), and trees off ROW (22%).</i>			4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by a vehicle	Complete	Oct-16	
			Repair line failure	Complete	Nov-16	
			Repair damage caused by trees during a storm	Complete	Nov-16	
40	Utica Junction	00318-51	<i>Performance was driven by trees off ROW (89%).</i>			1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Mar-17	
			Repair damage caused by trees	Complete	Jun-17	
41	N Meshoppen Tran	00531-65	<i>Performance was driven by trees off ROW (90%).</i>			
			Repair damage caused by trees	Complete	May-17	
			Repair damage caused by trees	Complete	May-17	
42	Edgewood	00089-13	<i>Performance was driven by trees off ROW (87%).</i>			1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Feb-17	
			Repair line failure	Complete	Feb-17	
			Repair damage caused by trees during a storm	Complete	Mar-17	
			Repair damage caused by trees	Complete	May-17	
			Repair line failure during a storm	Complete	Jun-17	
On cycle tree trimming	Complete	Jun-17				

Penelec							
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters	
43	Tunkhannock	00533-65	<i>Performance was driven by non-company human error (71%) and trees off ROW (10%).</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by trees	Complete	Oct-16		
			Repair damage caused by non-company human error	Complete	Jan-17		
			Repair damage caused by non-company human error	Complete	Feb-17		
			Targeted circuit rehabilitation	Complete	Jun-17		
			Install new radio controlled recloser	Complete	Apr-17		
			Circuit inspection	Complete	May-17		
44	Wysox	00657-62	<i>Performance was driven by trees off ROW (45%) and line failure (38%).</i>				
			Repair line failure	Complete	May-17		
			Repair damage caused by trees	Complete	May-17		
			Repair damage caused by trees	Complete	May-17		
45	Tionesta Jct Sw Sta	00498-51	<i>Performance was driven by trees off ROW (81%).</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Aug-16		
			Repair damage caused by trees	Complete	Sep-16		
			Repair damage caused by trees during a storm	Complete	Nov-16		
			Repair damage caused by trees during a storm	Complete	Jun-17		
			Repair damage caused by trees during a storm	Complete	Jun-17		
			Targeted circuit rehabilitation	To be completed 2017	0%		
			Circuit inspection	To be completed 2017	0%		
46	Logan	00700-81	<i>Performance was driven by trees off ROW (91%).</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by trees	Complete	Jul-16		
			Repair damage caused by trees	Complete	Aug-16		
			Repair damage caused by trees during a storm	Complete	Nov-16		
			Repair damage caused by trees during a storm	Complete	Nov-16		
			Repair damage caused by trees	Complete	Dec-16		
			Repair damage caused by trees	Complete	Mar-17		

Penelec						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
47	Lewis Run	00409-42	<i>Performance was driven by trees off ROW (72%) and equipment failure (12%).</i>			
			Repair equipment failure	Complete	Oct-16	
			Repair damage caused by trees	Complete	May-17	
			Repair damage caused by trees	Complete	May-17	
			Repair damage caused by trees	Complete	May-17	
48	Hepburnia	00778-21	<i>Performance was driven by trees off ROW (91%)</i>			
			Repair damage caused by trees	Complete	May-17	
			Repair damage caused by trees	Complete	May-17	
			Repair damage caused by trees	Complete	May-17	
49	Thompson	00442-65	<i>Performance was driven trees off ROW (75%) and ice (15%).</i>			4Q 2016 2Q 2017
			Repair damage caused by trees	Complete	Sep-16	
			Repair damage caused by ice	Complete	Oct-16	
			Repair damage caused by trees	Complete	May-17	
			Circuit inspection	Complete	Jun-17	
50	DuBois	00137-23	<i>Performance was driven by trees off ROW (67%)and recloser operation of unknown cause (12%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by trees	Complete	Jul-16	
			Repair damage caused by trees during a storm	Complete	Nov-16	
			Repair damage caused by trees during a storm	Complete	Mar-17	
			Restore recloser operation of unknown cause	Complete	Jun-17	
			Repair damage caused by trees	Complete	Jun-17	
51	Erie South	00259-31	<i>Performance was driven by trees off ROW (34%), equipment failure (25%), and line failure (16%).</i>			
			Repair damage caused by trees during a storm	Complete	Mar-17	
			Repair damage caused by trees	Complete	Apr-17	
			Repair equipment failure	Complete	Apr-17	
			Repair line failure	Complete	Apr-17	
52	Fairview East	00216-34	<i>Performance was driven by equipment failure (71%) and lightning (19%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair equipment failure	Complete	Jul-16	
			Repair damage caused by lightning	Complete	Aug-16	
			Restore recloser operation of unknown cause	Complete	Mar-17	
			Repair equipment failure	Complete	Jun-17	

Penelec						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
53	Pemberton	00096-82	<i>Performance was driven by trees off ROW (95%).</i>			1Q 2017 2Q 2017
			Repair damage caused by trees	Complete	Jan-17	
			Repair damage caused by trees during a storm	Complete	Mar-17	
			Repair damage caused by trees	Complete	May-17	
54	Glory	00106-13	<i>Performance was driven by trees off ROW (46%) and equipment failure (45%).</i>			
			Repair damage caused by trees	Complete	May-17	
			Repair equipment failure	Complete	May-17	
55	Madera	00166-22	<i>Performance was driven by lightning (20%), line failure (20%), recloser operation of unknown cause (17%), trees off ROW (15%) and non-company human error (11%).</i>			3Q 2016 4Q 2016 2Q 2017
			Repaired damage caused by non-company human error	Complete	Aug-16	
			Repair line failure	Complete	Apr-17	
			Repair damage caused by lightning	Complete	Jun-17	
			Repair damage caused by trees during a storm	Complete	Jun-17	
56	North Warren	00207-41	<i>Performance was driven by trees off ROW (57%) and line failure (27%).</i>			3Q 2016 1Q 2017 2Q 2017
			Repair damage caused by lightning	Complete	Aug-16	
			Repair line failure	Complete	Feb-17	
			Repair damage caused by trees during a storm	Complete	Mar-17	
			Repair damage caused by trees during a storm	Complete	Jun-17	
57	Page Road	00445-43	<i>Performance was driven by trees off ROW (66%) and line failure (25%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair line failure	Complete	Jul-16	
			Repair damage caused by storm	Complete	May-17	
			Repair line failure	Complete	May-17	
58	Emlenton	00121-51	<i>Performance was driven by trees off ROW (73%) and breaker operation of unknown cause (13%).</i>			
			Porcelain cutout replacement	Complete	Jul-16	
			On cycle tree trimming	Complete	Jul-16	
			Restored breaker operation of unknown cause	Complete	Jan-17	
			Repair damage caused by trees during a storm	Complete	Mar-17	
			Repair damage caused by trees during a storm	Complete	Jun-17	

Penelec							
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters	
59	Somerset	00030-12	<i>Performance was driven by equipment failure (34%), line failure (26%), and trees off ROW (22%).</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair line failure	Complete	Aug-16		
			Circuit inspection	Complete	Aug-16		
			Repair line failure	Complete	Nov-16		
			Repair damage caused by trees during a storm	Complete	Feb-17		
			Repair damage caused by trees during a storm	Complete	Feb-17		
			Repair equipment failure	Complete	Apr-17		
			On cycle tree trimming	To be completed 2017	0%		
60	Tiffany	00435-65	<i>Performance was driven by trees off ROW (73%) and line failure (23%).</i>				3Q 2016 4Q 2016 2Q 2017
			Circuit inspection	Complete	Jul-16		
			Repair damage caused by trees	Complete	May-17		
			Repair damage caused by trees	Complete	May-17		
61	Thompson	00446-65	<i>Performance was driven by trees off ROW (75%) and equipment failure (18%).</i>				
			Repair equipment failure	Complete	Aug-16		
			Repair equipment failure	Complete	Feb-17		
62	Sykesville	00726-23	<i>Performance was driven by vehicle accident (55%) and trees off ROW (25%).</i>				4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by a vehicle	Complete	Dec-16		
			Repair damage caused by trees during a storm	Complete	Mar-17		
63	East Hickory	00200-41	<i>Performance was driven by trees off ROW (91%)</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by trees	Complete	Aug-16		
			Repair damage caused by trees during a storm	Complete	Sep-16		
			Repair damage caused by trees during a storm	Complete	Oct-16		
			Repair damage caused by trees during a storm	Complete	Mar-17		

Penelec					
Unranked circuits appearing 2 or more quarters in the last 4 quarters					
Substation	Circuit	Q3 2016	Q4 2016	Q1 2017	Q2 2017
Athens	00514-61	X	X		
Birmingham	00168-22	X	X	X	
Brooklyn	00749-65	X	X	X	
Crown	00319-51	X	X		
Crown	00320-51		X	X	
Dubois	00124-23		X	X	
Edinboro	00420-34	X	X	X	
Fairview East	00218-34	X	X		
Gold	00714-63	X	X		
Grandview	00354-51	X	X	X	
Logan	00701-81	X	X	X	
Millfair Road Sub	00283-34	X	X		
Morgan Street	00240-52	X	X	X	
Morgan Street	00479-52	X	X		
North Warren	00596-41	X	X	X	
Philipsburg	00162-22	X	X		
Powell Ave Sub	00237-31	X	X		
Powell Ave Sub	00513-31	X	X		
Punxsutawney	00625-23	X	X	X	
Rolling Meadows	00310-31	X	X		
Somerset	00017-12		X	X	
South Mansfield	00617-63	X	X	X	
Spangler Sub	00052-72	X	X		
Starruca	00744-65		X	X	
Thompson	00436-65		X	X	
Tyrone North Sub	00944-22	X	X	X	
Utica Junction	00331-51	X		X	
Warren 5th Avenue	00250-41	X	X	X	

Penelec					
Unranked circuits appearing 2 or more quarters in the last 4 quarters					
Substation	Circuit	Q3 2016	Q4 2016	Q1 2017	Q2 2017
Warren 5th Avenue	00252-41	X	X		
West Tunkhannock	00231-65	X	X	X	

Penelec				
Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed
Abex	00493-52	Repair damage caused by trees during a storm	Complete	May-17
		Circuit inspection	To be completed 2017	0%
Athens	00514-61	Targeted circuit rehabilitation	To be completed 2017	0%
Brooklyn	00749-65	Circuit inspection	Complete	May-17
Cambridge Springs	00462-52	Porcelain cutout replacement	Complete	Apr-17
Cochranton	00496-52	Repair line failure	Complete	Jun-17
Crown	00319-51	Install new radio controlled switch	To be completed 2017	0%
		On cycle tree trimming	To be completed 2017	71%
Edinboro	00420-34	Circuit inspection	To be completed 2017	0%
Fairview East	00218-34	Circuit inspection	To be completed 2017	0%
Fairview East	00242-34	Repair damage caused by animal contact	Complete	May-17
		Repair damage caused by animal contact	Complete	May-17
Falls	00297-65	Repair damage caused by trees during a storm	Complete	May-17
Greenwood	00041-71	Repair damage caused by non-company human error	Complete	May-17
		Repair damage caused by trees	Complete	Apr-17
		On cycle tree trimming	To be completed 2017	91%
Mansfield	00558-63	Repair line failure	Complete	Apr-17
		Circuit inspection	Complete	Jun-17
Mansfield	00699-63	Repair line failure	Complete	Apr-17
Meshoppen	00283-65	Repair damage caused by trees	Complete	May-17
Millcreek Sub	00055-11	Repair damage caused by line failure	Complete	Apr-17
		Restored breaker operation of unknown cause	Complete	Jun-17
Mercer Pike	00473-52	Circuit inspection	To be completed 2017	0%

Penelec				
Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed
North Warren	00596-41	Circuit inspection	To be completed 2017	0%
Pennmar	00002-12	Repair equipment failure	Complete	Apr-17
		Repair damage caused by lightning	Complete	May-17
Philipsburg	00162-22	Targeted circuit rehabilitation	To be completed 2017	0%
		On cycle tree trimming	To be completed 2017	0%
Powell Ave Sub	00237-31	Targeted circuit rehabilitation	To be completed 2017	0%
Powell Ave Sub	00513-31	Install new radio controlled switch	To be completed 2017	0%
Punxsutawney	00625-23	Circuit inspection	Complete	May-17
		On cycle tree trimming	To be completed 2017	0%
Rolling Meadows	00310-31	Targeted circuit rehabilitation	To be completed 2017	0%
Shawville	00153-21	Repair damage caused by trees	Complete	Jun-17
		Repair equipment failure	Complete	Jun-17
Somerset	00017-12	On cycle tree trimming	Complete	Jun-17
South Mansfield	00617-63	Circuit inspection	Complete	Jun-17
Spangler Sub	00052-72	Add additional protection per circuit coordination	Complete	May-17
Starruca	00744-65	Porcelain cutout replacement	Complete	May-17
Titusville sub	00514-51	Repair equipment failure	Complete	Jun-17
		Targeted circuit rehabilitation	To be completed 2017	0%
		Circuit inspection	To be completed 2017	0%
Tyrone North	00944-22	On cycle tree trimming	Complete	Jun-17
Utica Junction	00331-51	Circuit inspection	To be completed 2017	0%

Penn Power						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
1	Camp Reynolds	W-134	<i>Performance was driven by trees off ROW (83%).</i>			
			Repair damage caused by trees during a storm	Complete	May-17	
2	Stoneboro	W-132	<i>Performance was driven by trees off ROW-tree (84%), line failure (6%) and vehicle (3%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q2017
			Repair damage caused by tree	Complete	Sep-16	
			Repair damage caused by a vehicle	Complete	Oct-16	
			Enhanced tree trimming	Complete	Dec-16	
			Repair line failure	Complete	Mar-17	
			Repair damage caused by trees during a storm	Complete	May-17	
3	Hadley	W-195	<i>Performance was driven by trees off ROW (61%)</i>			
			Repair damage caused by trees during a storm	Complete	May-17	
4	Leesburg	D-452	<i>Performance was driven by trees off ROW (92%)</i>			
			Repair damage caused by trees during a storm	Complete	May-17	
5	Perry	W-156	<i>Performance was driven by trees off ROW (73%), equipment failure (3%) and unknown (2%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by tree	Complete	Jul-16	
			Repair damage caused by tree	Complete	Oct-16	
			Reliability job to install fuses	Complete	Jan-17	
			Repair damage caused by trees during a storm	Complete	May-17	
6	McDowell	W-121	<i>Performance was driven by trees off ROW (68%),</i>			
			Repair damage caused by trees during a storm	Complete	May-17	
7	Seneca	W-701	<i>Performance was driven by vehicle (83%) and trees off ROW (5%).</i>			1Q 2017 2Q 2017
			Repair damage caused by tree	Complete	Mar-17	
			Repair damage caused by a vehicle	Complete	Mar-17	
8	McDowell	W-120	<i>Performance was driven by unknown (24%), trees off ROW (68%) and line failure (4%).</i>			1Q 2017 2Q 2017
			No cause found, restored circuit	Complete	Feb-17	
			Repair damage caused by trees during a storm	Complete	May-17	

Penn Power						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
9	Hermitage	W-260	<i>Performance was driven by lightning (43%), trees off ROW (24%), equipment failure(s) (14%) and animal (6%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Enhanced tree trimming	Complete	Jul-16	
			Repair damage caused by tree	Complete	Sep-16	
			Repair equipment failure	Complete	Oct-16	
			Repair damage caused by tree	Complete	Jan-17	
			Repair damage caused by trees during a storm	Complete	May-17	

Penn Power					
Unranked circuits appearing 2 or more quarters in the last 4 quarters					
Substation	Circuit	Q3 2016	Q4 2016	Q1 2017	Q1 2017
Ingomar	D619	X	X	X	
Mercer	W-128	X	X	X	
Mercer	W-129	X	X	X	
Stoneboro	W-131	X	X	X	

Penn Power				
Unranked circuits with remedial actions scheduled to be or recently completed				
Substation	Circuit	Remedial Action Planned	Status of Remedial Work	Progress of Remedial Work
Penn Power has no unranked circuits with remedial actions scheduled to be or recently completed.				

West Penn							
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters	
1	Rutan	Bristoria	<i>Performance was driven by equipment failure (45%) and trees off ROW (42%).</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by a tree	Complete	Sep-16		
			Reliability job to install fuses	Complete	Oct-16		
			Repair damage caused by a vehicle	Complete	Dec-16		
			Repair damage caused by a tree during a storm	Complete	Feb-17		
			Repair damage caused by a tree during a storm	Complete	Mar-17		
			Repair damage caused by a tree during a storm	Complete	May-17		
			Repair equipment failure during a storm	Complete	Jun-17		
			Repair equipment failure during a storm	Complete	Jun-17		
			On cycle tree trimming	To be completed 2017	26%		
2	Piney Fork	Stoltz	<i>Performance was driven by trees off ROW (75%) and animal (13%).</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair line failure during a storm	Complete	Aug-16		
			Repair damage caused by a tree during a storm	Complete	Dec-16		
			Repair damage caused by a tree during a storm	Complete	Dec-16		
			Targeted circuit rehabilitation	Complete	Oct-16		
			Restore unknown outage	Complete	Mar-17		
			Repair damage caused by a tree during a storm	Complete	Mar-17		
			Repair damage caused by a tree during a storm	Complete	Jun-17		
			On cycle tree trimming	To be completed 2017	95%		
3	North Fayette	Beechcliff	<i>Performance was driven by equipment failure (52%) and vehicle (27%).</i>				4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by a vehicle	Complete	Nov-16		
			On cycle tree trimming	Complete	Dec-16		
			Repair damage caused by a tree during a storm	Complete	Mar-17		
			Repair equipment failure during a storm	Complete	Mar-17		
Repair equipment failure	Complete	Apr-17					

West Penn							
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters	
4	Westraver	Pittsburgh Coal	<i>Performance was driven by line failure (55%), trees off ROW (21%), and forced outages (19%).</i>				1Q 2017 2Q 2017
			Repair damage caused by a tree during a storm	Complete	Jan-17		
			Forced outage to repair regulator during a storm	Complete	Feb-17		
			Repair line failure	Complete	Mar-17		
			Repair line failure	Complete	Jun-17		
			Repair line failure	Complete	Jun-17		
			Line Rehabilitation	Complete	Jun-17		
5	Smithton	Smithton	<i>Performance was driven by trees off ROW (80%).</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Jul-16		
			Repair damage caused by tree	Complete	Jul-16		
			Repair damage caused by trees during a storm	Complete	Aug-16		
			Restore unknown outage during a storm	Complete	Sep-16		
			Repair damage caused by a tree	Complete	Dec-16		
			Repair damage caused by a tree during a storm	Complete	Dec-16		
			Repair damage caused by a tree during a storm	Complete	Feb-17		
			Repair damage caused by a tree	Complete	Feb-17		
			Restore unknown outage during a storm	Complete	Mar-17		
			Repair damage caused by a vehicle	Complete	Apr-17		
			Repair damage caused by a tree during a storm	Complete	Jun-17		
			On cycle tree trimming	To be completed 2017	0%		
6	Donegal	Donegal	<i>Performance was driven by trees off ROW (92%).</i>				4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by a tree during a storm	Complete	Oct-16		
			Restore unknown outage during a storm	Complete	Oct-16		
			Repair damage caused by a vehicle	Complete	Nov-16		
			Repair damage caused by a tree during a storm	Complete	Jan-17		
			Zone 2 Ash tree removal	Complete	Mar-17		
			Repair damage caused by a tree	Complete	May-17		
Repair equipment failure	Complete	Jun-17					

West Penn						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
7	Saltsburg	Saltsburg	<i>Performance was driven by trees off ROW (64%) and equipment failure (21%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Forced outage to repair conductor during a storm	Complete	Jul-16	
			Repair damage caused by trees during a storm	Complete	Aug-16	
			Targeted line rehabilitation	Complete	Aug-16	
			Repair damage caused by a tree during a storm	Complete	Oct-16	
			Restore unknown outage during a storm	Complete	Oct-16	
			Repair damage caused by a tree during a storm	Complete	Feb-17	
			Repair damage caused by a tree during a storm	Complete	Mar-17	
			Repair equipment failure	Complete	Apr-17	
On cycle tree trimming	To be completed 2017	0%				
8	Avella	W Middletown	<i>Performance was driven by trees off ROW (54%), trees on ROW (23%), and forced outages (12%).</i>			4Q 2016 2Q 2017
			Forced outage to replace a crossarm	Complete	Apr-17	
			Repair damage caused by a tree	Complete	Jun-17	
			Repair damage caused by a tree during a storm	Complete	Jun-17	
			Reliability job to install fuses	To be completed 2017	0%	
9	Smith	Florence	<i>Performance was driven by trees off ROW (72%) and line failure (19%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair line failure during a storm	Complete	Jul-16	
			Repair line failure during a storm	Complete	Dec-16	
			Repair damage caused by a tree	Complete	Jan-17	
			Repair damage caused by a tree during a storm	Complete	Mar-17	
			Repair damage caused by a tree	Complete	May-17	
			Repair damage caused by a tree	Complete	May-17	
			Repair line failure	Complete	Jun-17	
			Zone 2 Ash tree removal	To be completed 2017	0%	
10	Emporium	Emporium Jct	<i>Performance was driven by trees off ROW (96%).</i>			1Q 2017 2Q 2017
			Repair damage caused by a tree	Complete	Jan-17	
			Repair damage caused by a tree during a storm	Complete	Mar-17	
			Repair damage caused by a tree	Complete	Jun-17	
			Repair damage caused by a tree during a storm	Complete	Jun-17	
			On cycle tree trimming	To be completed 2017	45%	

West Penn						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
11	Cooperstown	Twin Willows	<i>Performance was driven by trees off ROW (84%) and line failure (15%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair line failure during a storm	Complete	Jul-16	
			Reliability job to install fuses	Complete	Aug-16	
			Reliability job to install fuses	Complete	Oct-16	
			Repair damage caused by a tree during a storm	Complete	Nov-16	
			Restore unknown outage during a storm	Complete	Mar-17	
			Repair damage caused by a tree	Complete	Apr-17	
			Repair damage caused by a tree during a storm	Complete	May-17	
On cycle tree trimming	To be completed 2017	99%				
12	Huntingdon	Shawtown	<i>Performance was driven by trees off ROW (62%) and trees on ROW (25%).</i>			
			On cycle tree trimming	Complete	Dec-16	
			Repair damage caused by a tree during a storm	Complete	Apr-17	
			Repair damage caused by a tree during a storm	Complete	Jun-17	
13	Franklin	Rogersville	<i>Performance was driven by trees off ROW (65%) and unknown (22%).</i>			4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by a tree during a storm	Complete	Oct-16	
			Repair damage caused by a tree during a storm	Complete	Dec-16	
			Restore unknown outage during a storm	Complete	Feb-17	
			Repair damage caused by a tree during a storm	Complete	Feb-17	
			Line rehabilitation	Complete	Mar-17	
			Repair damage caused by a tree during a storm	Complete	Jun-17	
			Restore unknown outage during a storm	Complete	Jun-17	
Overhead circuit inspection	To be completed 2017	0%				
14	Henry Clay	Markleysburg	<i>Performance was driven by trees off ROW (84%).</i>			4Q 2016 1Q 2017 2Q 2017
			Repair line failure	Complete	Nov-16	
			Repair damage caused by a tree during a storm	Complete	Dec-16	
			On cycle tree trimming	Complete	Dec-16	
			Repair damage caused by a tree during a storm	Complete	Feb-17	
			Repair damage caused by a tree during a storm	Complete	May-17	
			Repair damage caused by a tree during a storm	Complete	Jun-17	
			Zone 2 Ash tree removal	To be completed 2017	0%	

West Penn						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
15	Krendale	Unionville	<i>Performance was driven by trees off ROW (67%), vehicle (16%) and unknown (11%).</i>			1Q 2017 2Q 2017
			On cycle tree trimming	Complete	Dec-16	
			Restore unknown outage during a storm	Complete	Feb-17	
			Repair damage caused by a tree during a storm	Complete	Feb-17	
			Restore unknown outage during a storm	Complete	Mar-17	
			Repair damage caused by a tree during a storm	Complete	Mar-17	
			Repair damage caused by a tree during a storm	Complete	Apr-17	
16	Amity	Banetown	<i>Performance was driven by trees off ROW (61%) and trees on ROW (20%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by a tree	Complete	Jul-16	
			Targeted line rehabilitation	Complete	Aug-16	
			Repair damage caused by a tree during a storm	Complete	Oct-16	
			Repair damage caused by a tree during a storm	Complete	Mar-17	
			Repair damage caused by a tree	Complete	Apr-17	
			Restore unknown outage	Complete	May-17	
			Repair damage caused by a tree	Complete	Jun-17	
On cycle tree trimming	To be completed 2017	4%				
17	Fort Palmer	West Fairfield	<i>Performance was driven by trees off ROW (66%) and human error-non-company (15%).</i>			3Q 2016 1Q 2017 2Q 2017
			Repair damage caused by a tree during a storm	Complete	Mar-17	
			Repair damage caused by a tree during a storm	Complete	Mar-17	
			Repair damage caused by a tree during a storm	Complete	Mar-17	
			Repair damage caused by a tree	Complete	Apr-17	
			Repair equipment failure during a storm	Complete	Jun-17	
			On cycle tree trimming	To be completed 2017	0%	
18	Hempfield	Cool Valley	<i>Performance was driven by line failure (47%), equipment failure (27%), unknown (14%).</i>			1Q 2017 2Q 2017
			Repair line failure during a storm	Complete	Jan-17	
			Restore unknown outage during a storm	Complete	Mar-17	
			Repair equipment failure	Complete	Mar-17	
			Repair equipment failure	Complete	Apr-17	
			Repair equipment failure	Complete	Apr-17	
			CEMI Review	Complete	May-17	
Reliability job to install fuses	To be completed 2017	0%				

West Penn						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
19	Bethlen	Laughlintown	<i>Performance was driven by trees off ROW (67%) and equipment failure (15%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by a tree	Complete	Jul-16	
			Repair equipment failure during a storm	Complete	Jul-16	
			Repair damage caused by trees during a storm	Complete	Jul-16	
			Repair damage caused by trees during a storm	Complete	Aug-16	
			On cycle tree trimming	Complete	Oct-16	
			Repair damage caused by a tree during a storm	Complete	Nov-16	
			Repair damage caused by a tree during a storm	Complete	Feb-17	
20	Mateer	Dime Rd	<i>Performance was driven by equipment failure (52%) and trees off ROW (38%).</i>			3Q 2016 1Q 2017 2Q 2017
			Repair equipment failure	Complete	Jan-17	
			Repair damage caused by a tree during a storm	Complete	Feb-17	
			Repair damage caused by a tree	Complete	Mar-17	
			Repair damage caused by a tree during a storm	Complete	Mar-17	
			Repair damage caused by a tree	Complete	Apr-17	
			Repair damage caused by a tree during a storm	Complete	Jun-17	
			Zone 2 Ash tree removal	To be completed 2017	0%	
21	Cecil	Murray Hill	<i>Performance was driven by trees off ROW (59%) and equipment failure (28%).</i>			4Q 2016 1Q 2017 2Q 2017
			Zone 2 Ash tree removal	Complete	Oct-16	
			On cycle tree trimming	Complete	Oct-16	
			Repair damage caused by a tree	Complete	Dec-16	
			Repair damage caused by a tree during a storm	Complete	Mar-17	
22	Bethel Park	Dashwood	<i>Performance was driven by trees off ROW (65%) and line failure (29%).</i>			
			On cycle tree trimming	Complete	Dec-16	
			Repair damage caused by a tree	Complete	May-17	
			Repair line failure	Complete	Jun-17	

West Penn						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
23	Frazier	Perry	<i>Performance was driven by line failure (62%) and trees off ROW (29%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Jul-16	
			Restore unknown outage	Complete	Jul-16	
			Repair line failure during a storm	Complete	Aug-16	
			Repair damage caused by a tree	Complete	Dec-16	
			Repair damage caused by a tree during a storm	Complete	Feb-17	
			Zone 2 Ash tree removal	Complete	May-17	
			Repair damage caused by a tree	Complete	May-17	
24	Thompson Farm	Oakwood	<i>Performance was driven by line failure (99%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair line failure during a storm	Complete	Aug-16	
			Repair line failure	Complete	Aug-16	
			Repair line failure	Complete	Sep-16	
			Repair line failure	Complete	Oct-16	
			Replace underground primary	Complete	Feb-17	
25	Driftwood	Driftwood	<i>Performance was driven by trees off ROW (46%) and line failure (37%).</i>			1Q 2017 2Q 2017
			Repair equipment failure	Complete	Jan-17	
			Repair line failure during a storm	Complete	Feb-17	
			Repair damage caused by a tree	Complete	Mar-17	
			Repair damage caused by a tree during a storm	Complete	Mar-17	
			Forced outage to repair a pole	Complete	May-17	
26	Robbins	Balkan	<i>Performance was driven by trees off ROW (97%).</i>			
			Zone 2 Ash tree removal	Complete	Feb-17	
			Repair equipment failure	Complete	Apr-17	
			Repair damage caused by a tree during a storm	Complete	Apr-17	
27	Butler	Center Ave	<i>Performance was driven by vehicle (52%) and tree off ROW (41%).</i>			
			Zone 2 Ash tree removal	Complete	Feb-17	
			Repair damage caused by a tree during a storm	Complete	May-17	
			Repair damage caused by a tree during a storm	Complete	May-17	

West Penn						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
28	Superior	Culmerville	<i>Performance was driven by equipment failure (45%) and trees off ROW (33%).</i>			
			Zone 2 Ash tree removal	Complete	Apr-17	
			Repair damage caused by lightning during a storm	Complete	Jun-17	
			Repair damage caused by a tree during a storm	Complete	Jun-17	
29	Cecil	Bishop	<i>Performance was driven by line failure (51%) and trees off ROW (34%).</i>			
			Replace underground substation exit	Complete	Dec-16	
			Repair line failure	Complete	May-17	
			Repair damage caused by a vehicle during a storm	Complete	Jun-17	
30	Bethlen	Darlington	<i>Performance was driven by trees off ROW (85%).</i>			3Q 2016 2Q 2017
			On cycle tree trimming	Complete	Sep-16	
			Repair damage caused by a tree	Complete	May-16	
			Repair damage caused by a tree	Complete	May-17	
			Repair damage caused by a tree	Complete	Jun-17	
31	Donegal	Bear Rocks	<i>Performance was driven by trees off ROW (69%) and line failure (11%).</i>			
			Repair damage caused by a tree during a storm	Complete	Apr-17	
			On cycle tree trimming	To be completed 2017	91%	
32	Hilliards	Hilliards	<i>Performance was driven by trees off ROW (49%) and animals (38%).</i>			
			Zone 2 Ash tree removal	Complete	Apr-17	
			Repair damage caused by an animal	Complete	Apr-17	
			Repair damage caused by an animal	Complete	Apr-17	
			Repair damage caused by a tree during a storm	Complete	Apr-17	
			Repair equipment failure	Complete	Jun-17	
33 ²⁶	Smithton	Yukon	<i>Performance was driven by trees off ROW (51%) and line failure (48%).</i>			1Q 2017 2Q 2017
			Repair damage caused by a tree	Complete	Jan-17	
			Repair line failure during a storm	Complete	Feb-17	
			Zone 2 Ash tree removal	Complete	May-17	
			Repair line failure during a storm	Complete	Jun-17	

²⁶ Smithton Yukon circuit was inadvertently labeled as Westraver West Newton in the 1Q 2017 report.

West Penn						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters
34	Donegal	Buchanan	<i>Performance was driven by trees on ROW (57%) and trees off ROW (27%).</i>			4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by a tree during a storm	Complete	Oct-16	
			Repair damage caused by a vehicle	Complete	Nov-16	
			Repair damage caused by a tree during a storm	Complete	Jan-17	
			Zone 2 Ash removal	Complete	Apr-17	
			Repair damage caused by a tree during a storm	Complete	Jun-17	
35	Harwick	Harmar	<i>Performance was driven by trees off ROW (56%) and lightning (25%).</i>			3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair equipment failure during a storm	Complete	Aug-16	
			Forced outage to repair a cutout during a storm	Complete	Aug-16	
			Repair damage caused by lightning during a storm	Complete	Aug-16	
			Repair damage caused by a tree during a storm	Complete	Dec-16	
			Repair damage caused by a tree during a storm	Complete	Feb-17	
			Overhead circuit inspection	To be completed 2017	0%	
36	Bethlen	Laurel Valley	<i>Performance was driven by trees off ROW (63%), line failure (11%), and forced outages (8%).</i>			3Q 2016 1Q 2017 2Q 2017
			Repair damage caused by a tree during a storm	Complete	Feb-17	
			Repair damage caused by a tree	Complete	Feb-17	
			Repair equipment failure during a storm	Complete	Mar-17	
			Repair damage caused by a tree during a storm	Complete	Jun-17	
			Overhead circuit inspection	To be completed 2017	13%	
37	Sewickley	Herminie	<i>Performance was driven by trees off ROW (70%) and unknown (24%).</i>			
			Repair damages caused by a tree	Complete	Jun-17	
			Repair damage caused by a tree during a storm	Complete	Jun-17	
			Restore unknown outage during a storm	Complete	Jun-17	
38	Murrysville	Wallace Lane	<i>Performance was driven by trees off ROW (63%) and trees on ROW (24%).</i>			1Q 2017 2Q 2017
			Repair damage caused by a tree during a storm	Complete	Jan-17	
			Repair damage caused by a tree during a storm	Complete	Feb-17	
			Repair damage caused by a tree during a storm	Complete	Mar-17	
			Repair damage caused by a tree during a storm	Complete	Mar-17	
			Restore unknown outage	Complete	Apr-17	
			On cycle tree trimming	Complete	May-17	
			Repair damage caused by a tree during a storm	Complete	Jun-17	

West Penn							
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work Completed	Progress of Remedial Work or Date Completed	Appeared in 2 of 4 Quarters	
39	Lake Lynn-Union	Fancy Hill	<i>Performance was driven by trees off ROW (68%) and unknown (22%).</i>				3Q 2016 4Q 2016 1Q 2017 2Q 2017
			Repair damage caused by trees during a storm	Complete	Jul-16		
			Restore unknown outage during a storm	Complete	Jul-16		
			Repair damage caused by trees during a storm	Complete	Jul-16		
			Repair line failure	Complete	Nov-16		
			Repair damage caused by a tree during a storm	Complete	Jan-17		
			Repair damage caused by a tree	Complete	Feb-17		
			Repair equipment failure during a storm	Complete	Apr-17		
			Repair equipment failure	Complete	May-17		
			Zone 2 Ash tree removal	To be completed 2017	0%		
40	Avella	Penowa	<i>Performance was driven by trees off ROW (51%), trees on ROW (25%), and forced outages (10%).</i>				4Q 2016 1Q 2017 2Q2017
			Repair line failure	Complete	Nov-16		
			Repair damage caused by a tree	Complete	Dec-16		
			Install Tollgrade monitors	Complete	Dec-16		
			Repair equipment failure	Complete	Feb-17		
			Repair damage caused by tree during a storm	Complete	Feb-17		

West Penn					
Unranked circuits appearing 2 or more quarters in the last 4 quarters					
Substation	Circuit	Q3 2016	Q4 2016	Q1 2017	Q2 2017
Amity	Amity	X	X	X	
Bethel Park	Hillcrest		X	X	
Crossgates	Robinhood	X	X	X	
Diamond Street	Hansen Ave	X	X		
Dutch Fork	Claysville	X	X		
Eastgate	West Point	X	X		
Fawn	Bull Creek	X	X		
Hickory	Fort Cherry		X	X	
Loyalhanna	Center Drive	X	X		
Luxor	Forbes Road	X	X	X	
North Union	Gallatin	X	X	X	
North Union	Phillips	X	X		
North Washington	Poke Run	X	X		
Parker	Parker	X	X		
Piney Fork	Gillhall	X	X	X	
Rutan	Windridge	X	X		
Vandergrift	Grifflo Park	X	X	X	
Westraver	West Newton	X	X		

West Penn				
Unranked circuits with remedial actions scheduled to be or recently completed				
Substation	Circuit	Remedial Action Planned	Status of Remedial Work	Progress of Remedial Work
Amity	Amity	Zone 2 Ash tree removal	To be completed in 2017	0%
Bethel Park	Hillcrest	On cycle tree trimming	To be completed in 2017	0%
Bethel Park	Coverdale	Zone 2 Ash tree removal	To be completed in 2017	0%
Charleroi	Speers	On cycle tree trimming	To be completed 2017	85%
Crossgates	Robinhood	On cycle tree trimming	To be completed in 2017	0%
Dutch Fork	Claysville	Overhead circuit inspection	To be completed in 2017	0%
Eastgate	West Point	Zone 2 Ash tree removal	Complete	Feb-17
Fawn	Bull Creek	Overhead circuit inspection	To be completed in 2017	0%
Hickory	Fort Cherry	CEMI Review	Complete	Apr-17
Hickory	Fort Cherry	Overhead circuit inspection	To be completed in 2017	0%
Lantz	Meadow	Zone 2 Ash tree removal	Complete	Apr-17
New Bethlehem	Clarion Rd	Overhead circuit inspection	To be completed 2017	0%
North Union	Phillips	Reliability job to install fuses	Complete	Jun-17
North Washington	Poke Run	On cycle tree trimming	Complete	Apr-17
Parker	Parker	On cycle tree trimming	To be completed in 2017	0%
Rowes Run	Grindstone	Overhead circuit inspection	To be completed in 2017	0%
Westraver	West Newton	Line rehabilitation	To be completed in 2017	0%
Westraver	West Newton	Zone 2 Ash tree removal	Complete	May-17
White Valley	Borlands	Reliability job to install fuses	Complete	Mar-17

ATTACHMENT C

FirstEnergy's Compliance with Terms of the March 30, 2015 Management Audit Order

Pursuant to Docket Nos. D-2014-2365991 and D-2014-2365992, (Appendix A)(2): Met-Ed and Penelec are directed to provide a quarterly report that shall consist of a chart documenting the Open Priority 3 repairs and the Overdue Priority 3 (P3) Repairs for each company each quarter.

	Met-Ed		Penelec	
	Open P3 Conditions	Overdue P3 Conditions	Open P3 Conditions	Overdue P3 Conditions
1Q	1,459	1,201	2,143	1,956
2Q	1,308	1,039	1,463	1,254
3Q				
4Q				

Pursuant to Docket Nos. D-2014-2365991, D-2014-2365992, D-2014-2365993, and D-2014-2365994, (Appendix A) (3): FirstEnergy is directed to track and measure line hit incidents, causes of line hits, and damage recovery amounts for all third-party line hit incidents for each company.

Met-Ed – Third Party Line Hit Incidents 2nd Quarter 2017 12-Month Rolling²⁷			
Cause of Line Hit	Number of Incidents	Invoice Amount (\$)	Recovery Amount (\$)
Dig In - Other	17	9,197	8,997
Excavated in Tolerance	41	176,053	27,629
Excavation Inconsistent with Ticket Scope	20	32,647	9,682
Excavation Prior to Lawful Start Date	2	3,238	3,239
Expired Ticket	4	5,771	4,788
Hand Digging	0	0	0
Marked Improperly	4	8,594	8,594
No Ticket	35	57,377	46,008
Total	123	292,877	108,937

Penelec – Third Party Line Hit Incidents 2nd Quarter 2017 12-Month Rolling²⁸			
Cause of Line Hit	Number of Incidents	Invoice Amount (\$)	Recovery Amount (\$)
Dig In - Other	14	0	0
Excavated in Tolerance	56	113,501	63,806
Excavation Inconsistent with Ticket Scope	4	2,739	2,504
Excavation Prior to Lawful Start Date	3	1,913	456
Expired Ticket	9	12,972	7,433
Hand Digging	11	5,295	2,532
Marked Improperly	43	48,357	41,875
No Ticket	52	51,676	34,852
Total	192	236,453	153,458

²⁷ Data includes line hits closed during the rolling twelve-month reporting period as well as line hits that are still open as of June 30, 2017.

²⁸ Data includes line hits closed during the rolling twelve-month reporting period as well as line hits that are still open as of June 30, 2017.

Penn Power – Third Party Line Hit Incidents 2 nd Quarter 2017 12-Month Rolling ²⁹			
Cause of Line Hit	Number of Incidents	Invoice Amount (\$)	Recovery Amount (\$)
Dig In - Other	11	5,509	4,377
Excavated in Tolerance	6	7,009	7,009
Excavation Inconsistent with Ticket Scope	1	1,436	1,436
Excavation Prior to Lawful Start Date	0	0	0
Expired Ticket	3	7,505	7,638
Hand Digging	0	0	0
Marked Improperly	4	15,769	14,865
No Ticket	20	38,700	24,352
Total	45	75,928	59,677

West Penn – Third Party Line Hit Incidents 2 nd Quarter 2017 12-Month Rolling ³⁰			
Cause of Line Hit	Number of Incidents	Invoice Amount (\$)	Recovery Amount (\$)
Dig In - Other	31	12,110	5,436
Excavated in Tolerance	3	7,807	795
Excavation Inconsistent with Ticket Scope	17	64,767	47,080
Excavation Prior to Lawful Start Date	0	0	0
Expired Ticket	4	21,506	13,800
Hand Digging	2	4,050	2,575
Marked Improperly	10	16,754	16,754
No Ticket	31	100,130	43,992
Total	98	227,124	130,432

Cause of Line Hit	Definition
Dig In - Other	Still under investigation
Excavated in Tolerance	Excavator didn't use prudent digging techniques within the Tolerance Zone
Excavation Inconsistent with Ticket Scope	Excavation outside dig box and/or scope of ticket
Excavation Prior to Lawful Start Date	Three business days prior to start of excavation from when the ticket was called in to mark
Expired Ticket	After ten business days have passed, the ticket is considered expired
Hand Digging	Excavator was hand digging within the Tolerance Zone, however the facility was still hit
Marked Improperly	Ticket called in, facility and/or equipment was not marked properly
No Ticket	No contact was made to create a dig-request ticket

²⁹ Data includes line hits closed during the rolling twelve-month reporting period as well as line hits that are still open as of June 30, 2017.

³⁰ Data includes line hits closed during the rolling twelve-month reporting period as well as line hits that are still open as of June 30, 2017.

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