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July 11, 2019

**VIA UNITED PARCEL SERVICE**

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

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JUL 11 2019

PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU

M-2016-2522508

**Re: Joint 1<sup>st</sup> Quarter 2019 Reliability Report – Metropolitan Edison Company,  
Pennsylvania Electric Company, Pennsylvania Power Company and West Penn  
Power Company – Public Version – Updated Report**

Dear Secretary Chiavetta:

Pursuant to 52 Pa. Code § 57.195(d) and (e), enclosed for filing on behalf of Metropolitan Edison Company (“Met-Ed”), Pennsylvania Electric Company (“Penelec”), Pennsylvania Power Company (“Penn Power”) and West Penn Power Company (“West Penn”) (collectively, the “Companies”) are two copies of the **updated** Joint 1<sup>st</sup> Quarter 2019 Reliability Report – Public Version (“Joint Report”) which now reflects the approval of the Companies’ 1<sup>st</sup> Quarter major events. Below is a list of pages which have been updated:

- Page 2 – Major Event Table
- Page 3 – Reliability Index Values table
- Page 9-14 – Outage by Cause tables
- Page 55-68 – Penelec WPC
- Page 69-71 – Penn Power WPC
- Page 72-85 – West Penn WPC

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 date stamp the additional copy and return it in the postage-prepaid envelope provided.

July 11, 2019

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

Sincerely,

Handwritten signature of Tori L. Giesler in black ink, appearing as 'Tori L. Giesler' with a stylized flourish at the end.

Tori L. Giesler

Enclosures

- c: As Per Certificate of Service
- 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)
- J. Van Zant – Bureau of Technical Utility Services (via email and first class mail)

**Met-Ed**  
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**Penelec**  
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**PennPower**  
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**WestPenn  
Power**  
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JUL 11 2019

PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU

# Joint 2019 1<sup>st</sup> 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 1<sup>st</sup> Quarter 2019 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.<sup>1</sup>*

*Major Event(s)*

FirstEnergy Company	Customers Affected	Time and Duration of the Event		Cause of the Event	Commission Approval Status
<b>Penelec</b>	106,374	Duration	108 hours, 21 minutes	High winds	Approved May 9, 2019
		Start Date/Time	February 24, 2019 0338		
		End Date/Time	February 28, 2019 1559		
<b>Penn Power</b>	36,177	Duration	108 hours, 3 minutes	High Winds	Approved May 9, 2019
		Start Date/Time	February 24, 2019 0042		
		End Date/Time	February 28, 2019 1245		
<b>West Penn</b>	177,394	Duration	128 hours, 31 minutes	High Winds	Approved May 24, 2019
		Start Date/Time	February 24, 2019 0359		
		End Date/Time	March 1, 2019 2230		

<sup>1</sup> 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**

IQ 2019 (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
<b>SAIFI</b>	1.15	1.38	1.37	1.26	1.52	1.82	1.12	1.34	1.13	1.05	1.26	1.24
<b>CAIDI</b>	117	140	145	117	141	115	101	121	126	170	204	169
<b>SAIDI</b>	135	194	200	148	213	209	113	162	143	179	257	209
<b>MAIFI<sup>2</sup></b>			1.59			2.78			0.093			
<b>Customers Served<sup>3</sup></b>	565,751			580,343			163,974			716,811		
<b>Number of Sustained Interruptions</b>	11,983			14,244			3,348			13,551		
<b>Customers Affected</b>	776,586			1,057,006			185,631			888,295		
<b>Customer Minutes</b>	112,908,152			120,976,241			23,447,698			149,675,107		
<b>Number of Customer Momentary Interruptions</b>	901,100			1,615,374			15,282					

<sup>2</sup> MAIFI values are not available for West Penn.

<sup>3</sup> Represents the average number of customers served during the reporting period.

**Unique Events Occurring in 1Q 2019:**

**Met-Ed**

- On March 3, 2019, a winter storm consisting of heavy, wet snow produced three to eight inches of snow across the Met-Ed service territory and accumulations of up to ten inches in the eastern region of Met-Ed, impacting 13,773 customers. Preliminary data indicates the reliability impact of the storm was 7.8 minutes of SAIDI, 0.02 of SAIFI, and an overall storm CAIDI of 321.4 minutes.

**Penelec**

- Beginning in the evening hours of December 31, 2018 and progressing into January 1, 2019, a storm system moved through Pennsylvania producing rain and wind gusts in excess of 50 miles per hour, impacting 27,979 customers. Preliminary data indicates the reliability impact of the storm was 7.8 minutes of SAIDI, 0.05 of SAIFI and an overall storm CAIDI of 162 minutes.

**West Penn**

- Beginning in the late evening hours of December 31, 2018 and progressing into January 1, 2019, a storm system moved through Pennsylvania producing rain and wind gusts in excess of 55 miles per hour, impacting 14,036 customers. Preliminary data indicates the reliability impact of the storm was 6 minutes of SAIDI, 0.02 of SAIFI and an overall storm CAIDI of 311 minutes.

*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.

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

*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**

<b>Outage by Cause</b>				
<b>1st Quarter 2019 12-Month Rolling</b>	<b>Met-Ed</b>			
<b>Cause</b>	<b>Customer Minutes</b>	<b>Number of Sustained Interruptions</b>	<b>Customers Affected</b>	<b>% Based on Customer Minutes</b>
Trees off ROW - tree	44,774,843	2,119	177,311	39.66%
Equipment failure	21,157,123	2,651	163,547	18.74%
Vehicle	8,784,833	308	60,066	7.78%
Unknown	7,979,404	1,511	87,516	7.07%
Line failure	7,931,373	1,108	53,056	7.02%
Trees off ROW - limb	4,400,951	578	29,835	3.90%
Forced outage	4,092,863	445	71,679	3.62%
Animal	3,343,010	1,434	32,217	2.96%
Lightning	2,880,120	256	25,257	2.55%
Trees on ROW	2,394,444	312	11,020	2.12%
Wind	1,079,351	89	6,171	0.96%
Human error - non-company	899,410	77	10,739	0.80%
Human error - company	561,477	44	15,458	0.50%
Trees - sec/service	522,445	483	1,232	0.46%
Object contact with line	499,418	58	6,205	0.44%
Bird	475,284	317	5,129	0.42%
Overload	410,129	66	5,721	0.36%
Other utility - non-electric	164,251	8	2,382	0.15%
Previous lightning	154,459	19	1,153	0.14%
UG dig-up	144,591	26	771	0.13%
Ice	95,509	15	320	0.08%
Other electric utility	69,373	15	6,186	0.06%
Customer equipment	63,311	29	3,451	0.06%
Fire	25,637	7	149	0.02%
Vandalism	2,445	4	8	0.00%
Switching error	1,344	1	4	0.00%
Contamination	754	3	3	0.00%
<b>Total</b>	<b>112,908,152</b>	<b>11,983</b>	<b>776,586</b>	<b>100%</b>

### 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 March 31, 2019, and associated actions designed to address these outage causes.

To address outages caused by trees, Met-Ed performs cycle-based tree trimming and enhanced tree trimming in select locations. Enhanced tree trimming removes healthy limbs overhanging primary conductors. Trees identified as a potential cause of a future outage are removed to prevent an interruption of electrical service to Met-Ed's customers.

To reduce the likelihood of equipment-caused outages, Met-Ed follows Inspection and Maintenance (“I&M”) programs<sup>4</sup> 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.

Met-Ed reviews vehicle caused outages to determine if it is a repeat location warranting remedial action, which could include modifying attachment height for communications, installing a taller pole, relocating the pole or installing sectionalizing equipment to minimize customer impact.

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<sup>4</sup> 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. The Companies submitted their Biennial Inspection, Maintenance, Repair and Replacement Plan for the period January 1, 2019 through December 31, 2020 on September 29, 2017, which was deemed approved pursuant to 52 Pa. Code § 57.198(i).

Outages by Cause – Penelec

Outage by Cause				
1st Quarter 2019 12-Month Rolling	Penelec			
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Customer Minutes
Trees off ROW - tree	43,247,474	1,801	231,297	35.75%
Equipment failure	25,988,956	3,170	305,248	21.48%
Line failure	15,238,004	1,695	146,375	12.60%
Forced outage	6,520,426	1,047	74,308	5.39%
Unknown	6,493,436	1,940	83,664	5.37%
Vehicle	5,186,387	290	37,120	4.29%
Animal	3,706,858	1,472	33,501	3.06%
Lightning	3,574,901	752	33,771	2.96%
Trees off ROW - limb	2,333,956	352	20,044	1.93%
Human error - company	1,857,540	104	37,549	1.54%
Object contact with line	1,115,706	41	3,694	0.92%
Wind	1,023,588	30	3,737	0.85%
Bird	922,650	350	14,153	0.76%
Overload	780,140	58	13,966	0.64%
Human error - non-company	684,298	86	3,360	0.57%
Trees - sec/service	630,312	708	2,121	0.52%
Trees on ROW	369,545	109	3,314	0.31%
Other electric utility	268,134	73	1,432	0.22%
Ice	232,793	13	1,926	0.19%
Other utility - non-electric	218,049	3	696	0.18%
Previous lightning	200,747	38	974	0.17%
UG dig-up	181,913	55	1,651	0.15%
Fire	85,075	12	397	0.07%
Contamination	48,694	4	119	0.04%
Switching Error	36,820	4	909	0.03%
Customer equipment	27,810	20	1,663	0.02%
Vandalism	2,029	17	17	0.00%
<b>Total</b>	<b>120,976,241</b>	<b>14,244</b>	<b>1,057,006</b>	<b>100%</b>

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 March 31, 2019 and the associated actions designed to address these outage causes.

To reduce outages caused by trees, Penelec performs cycle-based tree trimming which removes selected incompatible trees within the clearing zone corridor, removes certain defective limbs that are overhanging primary conductors, controls selected incompatible brush, and removes off right-of-way priority trees. Penelec continues the mitigation of trees subject to damage from the Emerald Ashe Borer through its normal cycle program.

To reduce the likelihood of outages caused by equipment and line failure, 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.

Outages by Cause – Penn Power

Outage by Cause				
1st Quarter 2019 12-Month Rolling	Penn Power			
Cause	Customer Minutes	Number of Sustained Interruptions	Customers Affected	% Based on Customer Minutes
Trees off ROW - tree	9,079,665	731	42,141	38.72%
Vehicle	3,081,798	109	15,099	13.14%
Equipment failure	2,912,320	350	28,339	12.42%
Animal	1,870,078	488	21,293	7.98%
Line failure	1,821,778	328	12,191	7.77%
Unknown	976,283	198	15,751	4.16%
Lightning	738,144	219	9,583	3.15%
Trees off ROW - limb	703,743	184	5,649	3.00%
Overload	647,948	58	9,287	2.76%
Bird	514,746	312	5,813	2.20%
Forced outage	290,186	88	8,479	1.24%
Human error - non-company	231,979	24	2,190	0.99%
Previous lightning	198,586	28	7,121	0.85%
Trees - sec/service	160,977	142	466	0.69%
Human error - company	78,130	21	1,084	0.33%
Wind	50,035	3	109	0.21%
UG dig-up	38,554	19	555	0.16%
Trees on ROW	28,138	19	256	0.12%
Object contact with line	10,658	7	141	0.05%
Ice	9,615	4	46	0.04%
Vandalism	2,633	3	25	0.01%
Customer equipment	1,639	12	12	0.01%
Fire	65	1	1	0.00%
<b>Total</b>	<b>23,447,698</b>	<b>3,348</b>	<b>185,631</b>	<b>100%</b>

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 March 31, 2019 and the associated actions designed to address these outage causes.

To address outages caused by trees, Penn Power performs tree trimming which removes selected incompatible trees within the clearing zone corridor, removes certain defective limbs that are overhanging primary conductors, controls selected incompatible brush, and removes off right-of-way priority trees. In addition, Penn Power performs enhanced trimming, which removes limbs overhanging primary conductors.

Penn Power reviews vehicle caused outages to determine if it is a repeat location warranting remedial action, which could include modifying attachment height for communications, installing a taller pole, relocating the pole or installing sectionalizing equipment to minimize customer impact.

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

**Outages by Cause – West Penn**

<b>Outage by Cause</b>				
<b>1st Quarter 2019 12-Month Rolling</b>	<b>West Penn</b>			
<b>Cause</b>	<b>Customer Minutes</b>	<b>Number of Sustained Interruptions</b>	<b>Customers Affected</b>	<b>% Based on Customer Minutes</b>
Trees off ROW - tree	63,331,983	3,312	256,325	42.31%
Equipment failure	20,356,542	2,702	154,181	13.60%
Line failure	16,932,644	1,431	111,017	11.31%
Wind	10,761,384	112	15,634	7.19%
Vehicle	8,906,283	362	65,320	5.95%
Unknown	7,915,680	1,784	69,835	5.29%
Trees on ROW	4,650,246	469	20,871	3.11%
Forced outage	4,557,393	764	85,160	3.04%
Trees off ROW - limb	3,394,265	239	21,345	2.27%
Lightning	1,905,431	111	15,251	1.27%
Animal	1,829,529	1,224	18,984	1.22%
Human error - company	992,226	60	17,038	0.66%
Bird	790,161	306	8,612	0.53%
Human error - non-company	691,154	66	6,890	0.46%
Other utility - non-electric	516,535	6	2,115	0.35%
Trees - sec/service	378,320	430	903	0.25%
Overload	332,981	29	5,893	0.22%
Other electric utility	320,421	15	1,985	0.21%
UG dig-up	217,818	48	1,240	0.15%
Customer equipment	181,294	18	1,107	0.12%
Vandalism	167,109	6	2,622	0.11%
Contamination	154,920	8	3,358	0.10%
Object contact with line	142,671	37	1,427	0.10%
Fire	116,260	6	335	0.08%
Ice	107,721	2	60	0.07%
Switching error	23,116	3	772	0.02%
Previous Lightning	1,020	1	15	0.00%
Call Error	0	0	0	0.00%
<b>Total</b>	<b>149,675,107</b>	<b>13,551</b>	<b>888,295</b>	<b>100%</b>

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 March 31, 2019, and the associated actions designed to address these outage causes.

To reduce outages caused by trees, West Penn performs cycle-based tree trimming which removes selected incompatible trees within the clearing zone corridor, removes certain defective limbs that are overhanging primary conductors, controls selected incompatible brush, and removes off right-of-way priority trees. West Penn continues its program to accelerate the mitigation of trees subject to damage from the Emerald Ash Borer.

To reduce the likelihood of equipment and line failures, 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.

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

*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 2019		Met-Ed			Penelec			Penn Power			West Penn		
		Planned	Completed		Planned	Completed		Planned	Completed		Planned	Completed	
		Annual	1Q	YTD	Annual	1Q	YTD	Annual	1Q	YTD	Annual	1Q	YTD
<b>Forestry</b>	Transmission (Miles)	282.22	103.75	103.75	384.77	107.09	107.09	171.19	6.77	6.77	208.34	81.82	81.82
	Distribution (Miles)	2,845	561	561	3,953	735	735	1,141	296	296	4,480	933	933
<b>Transmission</b>	Aerial Patrols	2	0	0	2	0	0	2	0	0	2	0	0
	Groundline	890	0	0	981	0	0	122	0	0	1,547	0	0
<b>Substation</b>	Substation Inspections Class A	422	211	211	788	394	394	148	74	74	714	357	357
	Substation Inspections Class B	422	0	0	788	0	0	148	0	0	714	0	0
	Substation Inspections Class C	1,688	422	422	3,152	788	788	592	148	148	2,856	714	714
	Transformers	395	38	38	696	338	338	125	0	0	688	245	245
	Breakers	87	21	21	437	65	65	8	5	5	379	64	64
	Relay Schemes	114	49	49	146	65	65	18	13	13	185	24	24
<b>Distribution</b>	Capacitors	4,761	4,761	4,761	8,702	8,702	8,702	978	978	978	1,305	1,305	1,305
	Poles	28,000	4,142	4,142	41,584	16,885	16,885	10,600	10,538	10,538	45,074	24,580	24,580
	Reclosers	1,115	311	311	2,581	0	0	863	863	863	3,911	2,487	2,487
	Radio-Controlled Switches	760	102	102	2,706	198	198	Penn Power has no radio-controlled switches			West Penn has no radio-controlled switches		

*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 Expenditures<sup>5</sup>*

Met-Ed T&D O&M – 1Q / YTD March 2019 (\$)						
Transmission						
Category	1Q Actuals	1Q Budget	YTD Actuals	YTD Budget	Annual Budget	
560	Operation Supervision and Engineering	0	0	0	0	0
561	Load Dispatching	(24,084)	(38,695)	(24,084)	(38,695)	(150,250)
562	Station Expenses	3,349	0	3,349	0	0
563	Overhead Lines Expenses	27,784	38,135	27,784	38,135	56,800
565	Transmission of Electricity by Others	2,246,523	2,109,000	2,246,523	2,109,000	8,436,000
566	Miscellaneous Transmission Expenses	(8,502)	(4,564)	(8,502)	(4,564)	(18,298)
567	Rents	16,063	0	16,063	0	0
568	Maintenance Supervision and Engineering	0	0	0	0	0
569	Maintenance of Structures	53,742	8,304	53,742	8,304	29,209
570	Maintenance of Station Equipment	338,301	1,125	338,301	1,125	4,500
571	Maintenance of Overhead Lines	48,841	0	48,841	0	0
572	Maintenance of Underground Lines	2,976	0	2,976	0	0
573	Maintenance of Miscellaneous Transmission Plant	3,280	(1,197)	3,280	(1,197)	(4,790)
575	Market Administration, Monitoring & Compliance Services	0	0	0	0	0
<b>Transmission Total</b>		<b>2,708,272</b>	<b>2,112,108</b>	<b>2,708,272</b>	<b>2,112,108</b>	<b>8,353,172</b>
Distribution						
Category	1Q Actuals	1Q Budget	YTD Actuals	YTD Budget	Annual Budget	
580	Operation Supervision and Engineering	52,576	52,238	52,576	52,238	228,234
581	Load Dispatching	54,647	46,255	54,647	46,255	231,996
582	Station Expenses	58,517	225,887	58,517	225,887	912,328
583	Overhead Line Expenses	114,764	41,978	114,764	41,978	122,451
584	Underground Line Expenses	541	0	541	0	0
585	Distribution-Street Lighting & Signal System Expenses	0	0	0	0	0
586	Meter Expenses	155,519	146,214	155,519	146,214	640,356
587	Customer Installations Expenses	0	0	0	0	0
588	Miscellaneous Distribution Expenses	1,975,047	1,531,586	1,975,047	1,531,586	6,404,140
589	Rents	134,562	130,867	134,562	130,867	523,469
590	Maintenance Supervision and Engineering	115,303	95,123	115,303	95,123	426,857
591	Maintenance of Structures	5,093	727	5,093	727	2,790
592	Maintenance of Station Equipment	1,469,625	1,635,682	1,469,625	1,635,682	7,292,017
593	Maintenance of Overhead Lines	18,313,312	8,314,191	18,313,312	8,314,191	34,016,659
594	Maintenance of Underground Lines	645,177	511,978	645,177	511,978	2,229,571
595	Maintenance Line Transformer	69,704	281,648	69,704	281,648	1,126,594
596	Maintenance of Street Lighting and Signal Systems	180,482	114,090	180,482	114,090	400,145
597	Maintenance of Meters	401,008	579,421	401,008	579,421	2,348,044
598	Maintenance of Miscellaneous Distribution Plant	200,040	630,505	200,040	630,505	2,381,957
<b>Distribution Total</b>		<b>23,945,917</b>	<b>14,338,390</b>	<b>23,945,917</b>	<b>14,338,390</b>	<b>59,287,607</b>
<b>Met-Ed Total</b>		<b>26,654,189</b>	<b>16,450,498</b>	<b>26,654,189</b>	<b>16,450,498</b>	<b>67,640,780</b>

<sup>5</sup> Budgets are subject to change.

Penelec						
T&D O&M – 1Q / YTD March 2019 (\$)						
Transmission						
Category	1Q Actuals	1Q Budget	YTD Actuals	YTD Budget	Annual Budget	
560	Operation Supervision and Engineering	0	0	0	0	0
561	Load Dispatching	4,484	(58,627)	4,484	(58,627)	(224,895)
562	Station Expenses	50,762	34,172	50,762	34,172	157,082
563	Overhead Lines Expenses	279,581	328,608	279,581	328,608	531,051
565	Transmission of Electricity by Others	7,700,620	6,905,679	7,700,620	6,905,679	27,622,716
566	Miscellaneous Transmission Expenses	(1,037)	0	(1,037)	0	0
567	Rents	166,771	46,947	166,771	46,947	275,000
568	Maintenance Supervision and Engineering	33,216	0	33,216	0	0
569	Maintenance of Structures	76,657	8,951	76,657	8,951	31,485
570	Maintenance of Station Equipment	86,221	72,139	86,221	72,139	288,560
571	Maintenance of Overhead Lines	81,390	0	81,390	0	0
572	Maintenance of Underground Lines	106	0	106	0	0
573	Maintenance of Miscellaneous Transmission Plant	837	0	837	0	0
575	Market Administration, Monitoring & Compliance Services	0	0	0	0	0
<b>Transmission Total</b>		<b>8,479,607</b>	<b>7,337,870</b>	<b>8,479,607</b>	<b>7,337,870</b>	<b>28,681,000</b>
Distribution						
Category	1Q Actuals	1Q Budget	YTD Actuals	YTD Budget	Annual Budget	
580	Operation Supervision and Engineering	148,226	80,908	148,226	80,908	325,625
581	Load Dispatching	85,892	69,566	85,892	69,566	311,134
582	Station Expenses	177,003	0	177,003	0	0
583	Overhead Line Expenses	34,641	54,163	34,641	54,163	91,827
584	Underground Line Expenses	211,254	178,099	211,254	178,099	970,299
585	Distribution-Street Lighting & Signal System Expenses	0	0	0	0	0
586	Meter Expenses	171,253	186,255	171,253	186,255	778,690
587	Customer Installations Expenses	0	0	0	0	0
588	Miscellaneous Distribution Expenses	2,683,267	2,366,340	2,683,267	2,366,340	10,818,822
589	Rents	536,136	306,851	536,136	306,851	1,227,405
590	Maintenance Supervision and Engineering	109,638	102,012	109,638	102,012	457,831
591	Maintenance of Structures	0	0	0	0	0
592	Maintenance of Station Equipment	2,014,798	1,386,537	2,014,798	1,386,537	5,911,064
593	Maintenance of Overhead Lines	12,755,847	8,320,641	12,755,847	8,320,641	35,394,672
594	Maintenance of Underground Lines	334,269	10,304	334,269	10,304	146,475
595	Maintenance Line Transformer	60,901	60,415	60,901	60,415	241,662
596	Maintenance of Street Lighting and Signal Systems	304,946	744,636	304,946	744,636	2,912,376
597	Maintenance of Meters	625,718	1,023,064	625,718	1,023,064	4,200,560
598	Maintenance of Miscellaneous Distribution Plant	318,781	0	318,781	0	32,545
<b>Distribution Total</b>		<b>20,572,570</b>	<b>14,889,791</b>	<b>20,572,570</b>	<b>14,889,791</b>	<b>63,820,986</b>
<b>Penelec Total</b>		<b>29,052,177</b>	<b>22,227,661</b>	<b>29,052,177</b>	<b>22,227,661</b>	<b>92,501,987</b>

Penn Power  
T&D O&M – IQ/YTD March 2019 (\$)

Transmission						
Category	1Q Actuals	1Q Budget	YTD Actuals	YTD Budget	Annual Budget	
560	Operation Supervision and Engineering	354	300	354	300	1,325
561	Load Dispatching	(5,579)	31,339	(5,579)	31,339	125,907
562	Station Expenses	0	(72)	0	(72)	(347)
563	Overhead Lines Expenses	0	(126)	0	(126)	(603)
565	Transmission of Electricity by Others	1,108,968	1,037,223	1,108,968	1,037,223	4,148,892
566	Miscellaneous Transmission Expenses	464	815	464	815	4,216
567	Rents	0	0	0	0	0
568	Maintenance Supervision and Engineering	2,937	3,207	2,937	3,207	13,054
569	Maintenance of Structures	7,365	2,372	7,365	2,372	9,575
570	Maintenance of Station Equipment	3,505	762	3,505	762	3,047
571	Maintenance of Overhead Lines	7,669	23,328	7,669	23,328	89,459
572	Maintenance of Underground Lines	0	0	0	0	0
573	Maintenance of Miscellaneous Transmission Plant	(19)	0	(19)	0	0
575	Market Administration, Monitoring & Compliance Services	0	0	0	0	0
<b>Transmission Total</b>		<b>1,125,666</b>	<b>1,099,148</b>	<b>1,125,666</b>	<b>1,099,148</b>	<b>4,394,526</b>
Distribution						
Category	1Q Actuals	1Q Budget	YTD Actuals	YTD Budget	Annual Budget	
580	Operation Supervision and Engineering	0	0	0	0	0
581	Load Dispatching	0	0	0	0	0
582	Station Expenses	12,797	0	12,797	0	0
583	Overhead Line Expenses	102,372	0	102,372	0	0
584	Underground Line Expenses	49,064	132,442	49,064	132,442	526,031
585	Distribution-Street Lighting & Signal System Expenses	0	0	0	0	0
586	Meter Expenses	15,597	19,674	15,597	19,674	82,500
587	Customer Installations Expenses	0	0	0	0	0
588	Miscellaneous Distribution Expenses	231,597	174,811	231,597	174,811	782,612
589	Rents	124,559	82,609	124,559	82,609	330,437
590	Maintenance Supervision and Engineering	32,612	25,589	32,612	25,589	114,777
591	Maintenance of Structures	0	0	0	0	0
592	Maintenance of Station Equipment	335,033	77,444	335,033	77,444	308,743
593	Maintenance of Overhead Lines	4,573,490	3,406,375	4,573,490	3,406,375	13,683,588
594	Maintenance of Underground Lines	42,271	11,855	42,271	11,855	49,513
595	Maintenance Line Transformer	8,802	12,735	8,802	12,735	50,939
596	Maintenance of Street Lighting and Signal Systems	16,824	5,239	16,824	5,239	20,957
597	Maintenance of Meters	95,348	121,193	95,348	121,193	520,239
598	Maintenance of Miscellaneous Distribution Plant	85,135	10,584	85,135	10,584	56,497
<b>Distribution Total</b>		<b>5,725,502</b>	<b>4,080,551</b>	<b>5,725,502</b>	<b>4,080,551</b>	<b>16,526,833</b>
<b>Penn Power Total</b>		<b>6,851,167</b>	<b>5,179,699</b>	<b>6,851,167</b>	<b>5,179,699</b>	<b>20,921,358</b>

West Penn						
T&D O&M – 1Q / YTD March 2019 (\$)						
Transmission						
Category	1Q Actuals	1Q Budget	YTD Actuals	YTD Budget	Annual Budget	
560	Operation Supervision and Engineering	8,766	10,960	8,766	10,960	47,984
561	Load Dispatching	190,547	223,487	190,547	223,487	987,631
562	Station Expenses	315,593	29,566	315,593	29,566	119,757
563	Overhead Lines Expenses	123,743	0	123,743	0	22,127
565	Transmission of Electricity by Others	13,640,332	15,284,934	13,640,332	15,284,934	61,139,736
566	Miscellaneous Transmission Expenses	226,822	83,171	226,822	83,171	388,389
567	Rents	5,990	5,990	5,990	5,990	23,960
568	Maintenance Supervision and Engineering	178,759	125,254	178,759	125,254	617,028
569	Maintenance of Structures	13,537	9,922	13,537	9,922	34,899
570	Maintenance of Station Equipment	924,089	455,588	924,089	455,588	1,976,768
571	Maintenance of Overhead Lines	2,600,151	1,548,002	2,600,151	1,548,002	8,948,508
572	Maintenance of Underground Lines	161	0	161	0	0
573	Maintenance of Miscellaneous Transmission Plant	0	0	0	0	0
575	Market Administration, Monitoring & Compliance Services	75	0	75	0	0
<b>Transmission Total</b>		<b>18,228,565</b>	<b>17,776,874</b>	<b>18,228,565</b>	<b>17,776,874</b>	<b>74,306,787</b>
Distribution						
Category	1Q Actuals	1Q Budget	YTD Actuals	YTD Budget	Annual Budget	
580	Operation Supervision and Engineering	36,764	8,949	36,764	8,949	40,721
581	Load Dispatching	395,858	469,766	395,858	469,766	2,032,520
582	Station Expenses	138,987	257,379	138,987	257,379	1,063,203
583	Overhead Line Expenses	557,843	408,082	557,843	408,082	1,001,275
584	Underground Line Expenses	298,965	325,112	298,965	325,112	1,300,000
585	Distribution-Street Lighting & Signal System Expenses	0	0	0	0	0
586	Meter Expenses	363,056	366,284	363,056	366,284	1,699,416
587	Customer Installations Expenses	0	0	0	0	0
588	Miscellaneous Distribution Expenses	4,305,423	3,585,204	4,305,423	3,585,204	15,053,815
589	Rents	0	0	0	0	0
590	Maintenance Supervision and Engineering	180,049	173,522	180,049	173,522	775,543
591	Maintenance of Structures	0	0	0	0	0
592	Maintenance of Station Equipment	1,709,390	1,467,654	1,709,390	1,467,654	8,738,340
593	Maintenance of Overhead Lines	22,888,968	8,255,056	22,888,968	8,255,056	35,705,974
594	Maintenance of Underground Lines	310,837	281,917	310,837	281,917	1,105,759
595	Maintenance Line Transformer	28,268	75,799	28,268	75,799	303,198
596	Maintenance of Street Lighting and Signal Systems	204,485	156,383	204,485	156,383	663,079
597	Maintenance of Meters	223,190	310,224	223,190	310,224	1,336,071
598	Maintenance of Miscellaneous Distribution Plant	76,976	48,557	76,976	48,557	174,905
<b>Distribution Total</b>		<b>31,719,060</b>	<b>16,189,889</b>	<b>31,719,060</b>	<b>16,189,889</b>	<b>70,993,818</b>
<b>West Penn Total</b>		<b>49,947,625</b>	<b>33,966,764</b>	<b>49,947,625</b>	<b>33,966,764</b>	<b>145,300,605</b>

*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<sup>6, 7</sup>*

Met-Ed					
T&D Capital – 1Q/YTD March 2019 (\$)					
Category	1Q Actuals	1Q Budget	YTD Actuals	YTD Budget	Annual Budget
Capacity	1,039,638	2,610,905	1,039,638	2,610,905	18,816,849
Condition	4,159,993	6,259,867	4,159,993	6,259,867	20,865,773
Facilities	458,921	81,954	458,921	81,954	401,995
Forced	10,177,408	11,589,140	10,177,408	11,589,140	47,374,775
Meter Related	504,758	763,787	504,758	763,787	3,184,048
New Business	4,966,627	5,003,870	4,966,627	5,003,870	17,430,231
Other	12,344,436	10,778,093	12,344,436	10,778,093	18,497,289
Reliability	2,997,686	8,204,071	2,997,686	8,204,071	35,689,750
Street Light	193,927	371,710	193,927	371,710	1,355,698
Tools & Equipment	595,074	313,622	595,074	313,622	1,367,255
Vegetation Management	3,004,181	2,399,158	3,004,181	2,399,158	11,676,319
<b>Met-Ed Total</b>	<b>40,442,649</b>	<b>48,376,176</b>	<b>40,442,649</b>	<b>48,376,176</b>	<b>176,659,981</b>

Penelec					
T&D Capital – 1Q/YTD March 2019 (\$)					
Category	1Q Actuals	1Q Budget	YTD Actuals	YTD Budget	Annual Budget
Capacity	(475,015)	3,000	(475,015)	3,000	9,232
Condition	3,031,375	1,958,743	3,031,375	1,958,743	8,025,004
Facilities	767,512	134,339	767,512	134,339	612,343
Forced	13,125,138	9,136,064	13,125,138	9,136,064	41,673,023
Meter Related	493,108	302,275	493,108	302,275	1,199,288
New Business	2,649,903	2,952,889	2,649,903	2,952,889	12,077,113
Other	4,237,510	9,238,070	4,237,510	9,238,070	28,512,226
Reliability	7,905,659	3,680,955	7,905,659	3,680,955	24,395,291
Street Light	558,686	985,751	558,686	985,751	4,152,570
Tools & Equipment	441,713	335,712	441,713	335,712	4,733,828
Vegetation Management	5,512,744	5,519,625	5,512,744	5,519,625	21,136,461
<b>Penelec Total</b>	<b>38,248,332</b>	<b>34,247,423</b>	<b>38,248,332</b>	<b>34,247,423</b>	<b>146,526,379</b>

<sup>6</sup> Budgets are subject to change.

<sup>7</sup> General note: Capital reported on Generally Accepted Accounting Principles (GAAP) basis.

Penn Power					
T&D Capital – 1Q/YTD March 2019 (\$)					
Category	1Q Actuals	1Q Budget	YTD Actuals	YTD Budget	Annual Budget
Capacity	(111,476)	142,612	(111,476)	142,612	233,499
Condition	117,549	652,626	117,549	652,626	5,028,802
Facilities	2,818	0	2,818	0	23,425
Forced	3,687,112	1,788,717	3,687,112	1,788,717	6,794,376
Meter Related	186,861	153,890	186,861	153,890	656,288
New Business	1,368,832	1,761,039	1,368,832	1,761,039	5,984,260
Other	1,179,973	(58,253)	1,179,973	(58,253)	(3,181,698)
Reliability	2,994,367	5,189,045	2,994,367	5,189,045	29,697,638
Street Light	138,940	142,533	138,940	142,533	570,580
Tools & Equipment	91,137	63,788	91,137	63,788	161,646
Vegetation Management	633,047	704,986	633,047	704,986	2,971,030
<b>Penn Power Total</b>	<b>10,289,160</b>	<b>10,540,981</b>	<b>10,289,160</b>	<b>10,540,981</b>	<b>48,939,848</b>

West Penn					
T&D Capital – 1Q/YTD March 2019 (\$)					
Category	1Q Actuals	1Q Budget	YTD Actuals	YTD Budget	Annual Budget
Capacity	736,639	2,527,278	736,639	2,527,278	(2,769,181)
Condition	4,282,451	4,314,482	4,282,451	4,314,482	21,879,413
Facilities	260,536	63,442	260,536	63,442	352,465
Forced	14,604,992	13,031,956	14,604,992	13,031,956	48,992,024
Meter Related	414,035	353,438	414,035	353,438	1,510,550
New Business	5,270,969	7,465,495	5,270,969	7,465,495	28,682,457
Other	16,898,441	20,623,989	16,898,441	20,623,989	44,082,329
Reliability	10,516,277	8,831,003	10,516,277	8,831,003	59,905,144
Street Light	358,323	449,019	358,323	449,019	1,839,136
Tools & Equipment	714,402	441,033	714,402	441,033	2,981,970
Vegetation Management	5,777,772	6,753,753	5,777,772	6,753,753	26,926,912
<b>West Penn Total</b>	<b>59,834,836</b>	<b>64,854,886</b>	<b>59,834,836</b>	<b>64,854,886</b>	<b>234,383,219</b>

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

*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).<sup>8</sup>*

*Staffing Levels*

Met-Ed 2019												
Department	Position	Staffing Level				Staff Added in Quarter			Staff Lost in Quarter			Plan to Hire in 2020 <sup>11</sup>
		1Q	2Q	3Q	4Q	New Hire – Experienced	New Hire – PSI Student	Other <sup>9</sup>	Retirement	Voluntary Separation	Other <sup>10</sup>	
Distribution	Line Leader	48							1			
	Line Troubleshooter	35										
	Lineman	128				2				1		
Substation	Substation Leader	15										
	Substation Employee	66				2						
Transmission	Line Leader	1										
	Lineman	10										
	<b>Total</b>	<b>303</b>				<b>4</b>			<b>1</b>	<b>1</b>		

<sup>8</sup> 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.

<sup>9</sup> Includes transfers and promotions.

<sup>10</sup> Includes transfers, voluntary separations, and promotions.

<sup>11</sup> Hiring plan to be provided annually in the 4Q report.

Penelec 2019												
Department	Position	Staffing Level				Staff Added in Quarter			Staff Lost in Quarter			Plan to Hire in 2020 <sup>14</sup>
		1Q	2Q	3Q	4Q	New Hire – Experienced	New Hire – PSI Student	Other <sup>12</sup>	Retirement	Voluntary Separation	Other <sup>13</sup>	
Distribution	Line Leader	70						1				
	Line Troubleshooter	67						2				
	Lineman	122									2	
Substation	Substation Leader	34						2			1	
	Substation Employee	27						1			3	
Transmission	Line Leader	5										
	Lineman	21										
	<b>Total</b>	<b>346</b>						<b>6</b>			<b>6</b>	

<sup>12</sup> Includes transfers and promotions.

<sup>13</sup> Includes transfers, involuntary separations, and promotions.

<sup>14</sup> Hiring plan to be provided annually in the 4Q report.

Penn Power 2019												
Department	Position	Staffing Level				Staff Added in Quarter			Staff Lost in Quarter			Plan to Hire in 2020 <sup>17</sup>
		1Q	2Q	3Q	4Q	New Hire – Experienced	New Hire – PSI Student	Other <sup>15</sup>	Retirement	Voluntary Separation	Other <sup>16</sup>	
Distribution	Line Leader	23							1			
	Line Troubleshooter	9										
	Lineman	44										
Substation	Substation Leader	5										
	Substation Employee	19						1				
Transmission	Line Leader	1										
	Lineman	3										
	<b>Total</b>	<b>104</b>						<b>1</b>	<b>1</b>			

<sup>15</sup> Includes transfers, promotions, and promotions within a position.

<sup>16</sup> Includes transfers, involuntary separations, promotions and promotions within a position.

<sup>17</sup> Hiring plan to be provided annually in the 4Q report.

West Penn 2019												
Department	Position	Staffing Level				Staff Added in Quarter			Staff Lost in Quarter			Plan to Hire in 2020 <sup>20</sup>
		1Q	2Q	3Q	4Q	New Hire – Experienced	New Hire – PSI Student	Other <sup>18</sup>	Retirement	Voluntary Separation	Other <sup>19</sup>	
Distribution	Line Leader	54									3	
	Line Troubleshooter	67						3	1		1	
	Lineman	103						4		1	5	
Substation	Substation Leader	16							1			
	Substation Employee	72						2			1	
Transmission	Line Leader	0										
	Lineman	1										
	<b>Total</b>	<b>313</b>						<b>9</b>	<b>2</b>	<b>1</b>	<b>10</b>	

<sup>18</sup> Includes transfers, promotions, and promotions within a position.

<sup>19</sup> Includes transfers, involuntary separations, promotions and promotions within a position.

<sup>20</sup> Hiring plan to be provided annually in the 4Q report.

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

*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 percentage is defined as the number of workers accepting to total call outs.

This portion of the report is confidential.

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

*Call-out Response*

This portion of the report is confidential.

**Call-Out Procedure:**

When an event occurs, Met-Ed, Penelec, Penn Power and West Penn<sup>22</sup> dispatch a troubleman to find and assess the cause of the outage. If the troubleman is unable to repair the damage and a crew is required, the troubleman will inform the Distribution Control Center (“DCC”). The DCC and/or the Customer Operations Center’s (“COC”) person on duty will then initiate the call-out process until desired staffing levels required to complete the restoration have been achieved.

The number of unique workers called for an outage event is recorded and represents the total calls, or opportunities, for an outage event. The number of unique workers who accept the opportunity is recorded and represents the workers accepting. The elapsed time is calculated by taking the date and time of the first employee called for an event minus the date and time of the last accepting employee for that event. The call-out results from all outages experienced during a particular month are added together to derive a total value for each field.

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<sup>22</sup> Penelec, Penn Power and West Penn utilize ARCOS, an automated calling system to complete the call out process.

ATTACHMENT A

Worst Performing Circuits - Reliability Indices

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

Met-Ed													
Circuit Rank	Substation	Circuit	District	Average Customers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI	MAIFI
1	Mountain	00744-4	Dillsburg	1,674	89	0	1,894,641	6,495	28.42	1,132	3.88	292	0.17
2	North Cornwall	00610-2	North Cornwall	2,125	50	1	1,367,689	6,969	20.51	644	3.28	196	1.00
3	Shawnee	00895-3	Shawnee	3,705	79	0	1,112,693	6,930	16.69	300	1.87	161	2.34
4	Lickdale	00625-2	Lickdale	1,002	103	0	1,098,070	3,454	16.47	1,096	3.45	318	4.97
5	Bern Church	00789-1	Bern Church	1,423	84	1	1,082,209	3,439	16.23	761	2.42	315	0.38
6	Carsonia	00764-1	Carsonia	2,826	52	1	1,079,061	4,732	16.18	382	1.67	228	0.89
7	Huffs Church	00600-1	Huffs Church	1,242	82	0	1,036,636	2,389	15.55	835	1.92	434	0.00
8	Moselem	00782-1	Moselem	2,387	43	3	961,484	6,396	14.42	403	2.68	150	0.00
9	Gardners	00754-4	Gardners	573	34	0	956,634	1,471	14.35	1,670	2.57	650	0.00
10	Ottsville	00660-3	Ottsville	869	41	0	948,651	1,872	14.23	1,092	2.15	507	0.00
11	Lynnville	00735-1	Lynnville	1,366	43	3	930,578	4,378	13.96	681	3.20	213	1.00
12	Mountain	00740-4	Mountain	2,629	63	2	927,839	6,786	13.92	353	2.58	137	4.95
13	S Nazareth	00809-3	S Nazareth	3,180	58	2	914,378	8,021	13.71	288	2.52	114	0.05
14	Shawnee	00899-3	Shawnee	1,575	74	2	880,672	8,373	13.21	559	5.32	105	4.63
15	Lickdale	00626-2	Lickdale	1,791	68	1	880,224	4,034	13.20	491	2.25	218	15.87
16	No Bangor	00813-3	No Bangor	1,344	47	0	847,681	3,026	12.71	631	2.25	280	0.00
17	Flying Hills	00777-1	Flying Hills	1,770	59	0	829,727	3,664	12.44	469	2.07	226	0.00
18	Birdsboro	00756-1	Birdsboro	1,599	80	0	820,427	2,758	12.30	513	1.72	297	2.61
19	Straban	00676-4	Straban	1,074	59	1	810,809	3,098	12.16	755	2.88	262	5.01
20	Crossroads	00728-4	Crossroads	1,147	50	1	797,716	4,091	11.96	695	3.57	195	15.91
21	Shawnee	00837-3	Shawnee	1,259	35	0	763,201	3,129	11.45	606	2.49	244	6.03
22	W Boyertown	00714-1	W Boyertown	1,868	53	2	756,682	5,491	11.35	405	2.94	138	2.00
23	Barto	00705-1	Barto	873	68	1	748,143	1,733	11.22	857	1.99	432	1.40
24	Bernville	00786-1	Bernville	1,847	90	0	746,916	4,233	11.20	404	2.29	176	1.00
25	Shawnee	00822-3	Shawnee	3,786	90	2	743,971	5,813	11.16	197	1.54	128	1.65
26	Gardners	00752-4	Gardners	1,496	82	2	742,832	6,032	11.14	497	4.03	123	2.00
27	River View	00793-1	River View	3,140	33	2	735,892	7,771	11.04	234	2.47	95	0.70
28	Queen St	00522-4	Queen St	2,124	38	2	711,866	6,947	10.68	335	3.27	102	0.23
29	Myerstown	00751-2	Myerstown	510	15	0	706,136	3,347	10.59	1,385	6.56	211	2.17
30	No Bangor	00838-3	No Bangor	1,544	47	1	705,303	4,113	10.58	457	2.66	171	0.70

<b>Met-Ed</b>													
<b>Circuit Rank</b>	<b>Substation</b>	<b>Circuit</b>	<b>District</b>	<b>Average Customers</b>	<b>Outages</b>	<b>Lockouts</b>	<b>Customer Minutes</b>	<b>Customers Affected</b>	<b>SAIDI Impact</b>	<b>SAIDI</b>	<b>SAIFI</b>	<b>CAIDI</b>	<b>MAIFI</b>
31	Ferndale	00871-3	Ferndale	482	37	0	703,820	2,369	10.56	1,460	4.91	297	0.00
32	Newberry	00577-4	Newberry	1,734	22	3	639,951	4,442	9.60	369	2.56	144	11.98
33	Raubsville St	00079-3	Raubsville St	795	23	2	637,833	2,651	9.57	802	3.33	241	0.00
34	Saylorsburg	00114-3	Saylorsburg	689	37	0	634,656	1,369	9.52	921	1.99	464	1.00
35	19th and Cotton	00156-1	19th and Cotton	802	31	2	633,521	3,466	9.50	790	4.32	183	0.13
36	Allen	00502-4	Allen	1,050	41	4	633,469	7,914	9.50	603	7.54	80	2.17
37	Shawnee	00860-3	Shawnee	3,172	71	2	616,592	9,291	9.25	194	2.93	66	1.30
38	S Hamb	00801-1	S Hamb	2,688	72	2	615,628	5,889	9.23	229	2.19	105	0.02
39	Swatara Hill	00763-2	Swatara Hill	1,517	54	1	599,919	4,171	9.00	395	2.75	144	6.11

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

Penelec													
Circuit Rank	Substation	Circuit Desc	District	Average Customers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI	MAIFI
1	Grover	00527-63	Towanda	1,062	91	0	2,264,789	5,716	3.90	2133	5.38	396	12.85
2	East Pike	00095-13	Indiana	3,437	37	1	1,746,303	10,910	3.01	508	3.17	160	10.46
3	Erie South	00259-31	Erie	3,105	78	1	1,330,011	5,785	2.29	428	1.86	230	7.42
4	Warren South	00220-41	Warren	2,634	81	1	1,306,057	11,380	2.25	496	4.32	115	5.55
5	Natl Forge SW Sta	00577-41	Warren	1,226	56	0	1,234,605	9,676	2.13	1007	7.89	128	5.28
6	Blairsville East	00080-13	Indiana	1,029	28	0	1,165,053	4,526	2.01	1132	4.40	257	54.82
7	Lenox	00755-65	Montrose	686	27	1	1,128,013	2,952	1.94	1644	4.30	382	2.60
8	Seward	00079-11	Johnstown	753	20	2	1,092,602	2,100	1.88	1451	2.79	520	7.41
9	Piney	00523-51	Oil City	1,492	70	2	1,019,543	7,935	1.76	683	5.32	128	1.70
10	DuBois	00137-23	Philipsburg	2825	99	0	992,536	8,469	1.71	351	3.00	117	8.20
11	Madera	00165-22	Erie	1,280	48	0	964,456	5,830	1.66	753	4.55	165	1.53
12	Madera	00166-22	DuBois	1939	67	0	952,686	8,644	1.64	491	4.46	110	0.00
13	Timblin	00103-23	Oil City	710	44	1	895,014	2,409	1.54	1261	3.39	372	1.64
14	Buffalo Road	00265-31	DuBois	1220	21	1	868,254	7,952	1.50	712	6.52	109	43.06
15	North Warren	00596-41	Warren	1,127	52	1	852,299	5,043	1.47	756	4.47	169	8.58
16	Birmingham	00168-22	Oil City	1,084	65	3	845,301	5,573	1.46	780	5.14	152	25.39
17	Revloc	00069-72	Lewistown	553	8	1	796,908	1,142	1.37	1441	2.07	698	10.98
18	Marienville	00328-51	Somerset	1,200	60	0	758,450	3,101	1.31	632	2.58	245	13.60
19	Pennmar	00002-12	Philipsburg	791	34	0	755,506	4,100	1.30	955	5.18	184	24.06
20	Marienville	00327-51	Mansfield	749	32	1	751,704	1,571	1.30	1004	2.10	478	12.99
21	Brookville	00125-23	Montrose	616	46	0	695,299	2,970	1.20	1129	4.82	234	3.06
22	McVeytown	00112-81	Meadville	1328	59	0	669,684	2,952	1.15	504	2.22	227	8.78
23	Mansfield	00558-63	Indiana	630	40	2	598,905	2,013	1.03	951	3.20	298	8.97
24	Kearsarge	00528-31	Erie	1,536	17	0	583,913	4,869	1.01	380	3.17	120	1.98
25	Union City	00206-43	Erie	2,143	87	0	579,215	8,624	1.00	270	4.02	67	12.37
26	Thompson	00436-65	Oil City	1339	69	0	577,459	2,452	1.00	431	1.83	236	4.76
27	Hilltop	00048-11	Johnstown	2075	26	0	562,809	3,721	0.97	271	1.79	151	0.36
28	Logan	00700-81	Lewistown	1008	34	0	561,324	4,081	0.97	557	4.05	138	1.90
29	McConnellstown	00099-82	Erie	774	23	1	547,001	1,319	0.94	707	1.70	415	3.08
30	Springboro	00217-52	Montrose	474	21	1	546,128	933	0.94	1152	1.97	585	15.36
31	Millfair Road	00283-34	Montrose	833	14	2	539,792	2,388	0.93	648	2.87	226	29.76
32	Glory	00105-13	Lewistown	410	15	0	534,342	1,795	0.92	1303	4.38	298	14.21

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

Penelec													
Circuit Rank	Substation	Circuit Desc	District	Average Customers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI	MAIFI
33	Russell Hill	00282-65	Lewistown	1,019	77	0	521,190	2,258	0.90	511	2.22	231	3.32
34	Seward	00075-11	Mansfield	903	38	0	504,668	3,294	0.87	559	3.65	153	2.61
35	Philipsburg	00162-22	Meadville	3356	91	0	500,832	7,212	0.86	149	2.15	69	3.82
36	Grandview	00354-51	Montrose	532	21	1	492,942	1,275	0.85	927	2.40	387	2.28
37	Northeast	00591-31	Mansfield	585	19	1	492,468	2,273	0.85	842	3.89	217	0.84
38	Shawville	00151-21	Erie	2,259	49	1	481,382	6,721	0.83	213	2.98	72	0.24
39	Tunkhannock	00533-65	Altoona	1,228	46	0	461,915	2,166	0.80	376	1.76	213	11.10
40	Shade Cap 115	00622-82	Montrose	666	19	3	456,362	2,248	0.79	685	3.38	203	11.93
41	Milroy	00128-81	Clearfield	1,721	37	2	448,739	4,406	0.77	261	2.56	102	4.44
42	Mansfield	00699-63	Montrose	759	31	1	443,466	2,131	0.76	584	2.81	208	1.00
43	Fairview East	00242-34	Erie	1332	38	1	440,602	3446	0.76	331	2.59	128	1.97
44	Laurel Pipeline	00036-71	Philipsburg	927	31	0	436,176	3,911	0.75	471	4.22	112	1.82
45	N Meshoppen Tran	00530-65	Oil City	587	28	0	434,972	1,890	0.75	741	3.22	230	9.47
46	Emlenton	00322-51	Philipsburg	451	45	0	430,833	1,221	0.74	955	2.71	353	6.30
47	Springboro	00237-52	Warren	2,788	85	0	422,698	4,663	0.73	152	1.67	91	0.82
48	Laurenceville	00632-63	Lewistown	645	18	2	417,424	1,557	0.72	647	2.41	268	7.31
49	Page Road	00445-43	Towanda	654	29	1	410,185	2,613	0.71	627	4.00	157	5.56
50	East Pike	00094-13	Erie	1568	15	1	405,248	2,717	0.70	258	1.73	149	3.88
51	Industrial Park	00796-65	Oil City	355	18	1	400,480	1,163	0.69	1128	3.28	344	2.41
52	Meshoppen	00283-65	Philipsburg	366	46	0	398,143	1,586	0.69	1088	4.33	251	6.13
53	French Road	00550-31	Warren	1,580	37	0	369,930	2,624	0.64	234	1.66	141	3.06
54	Powell Ave	00237-31	DuBois	1895	27	0	363,048	4,646	0.63	192	2.45	78	3.77
55	Logan	00701-81	Philipsburg	1420	28	0	361,314	3,640	0.62	254	2.56	99	9.05
56	Timblin	00115-23	Erie	359	26	0	359,283	1,574	0.62	1001	4.38	228	7.05
57	Mildred	00771-62	Indiana	517	13	2	357,682	1,091	0.62	692	2.11	328	0.59
58	Clymer	00110-13	Johnstown	1119	32	0	353,791	1,938	0.61	316	1.73	183	4.79
59	East Hickory	00201-41	Altoona	301	34	2	351,602	1,480	0.61	1168	4.92	238	9.16
60	N Meshoppen Tran	00534-65	Towanda	866	55	0	336,318	1,767	0.58	388	2.04	190	7.97
61	Brookville West	00121-23	DuBois	703	35	0	335,305	1,669	0.58	477	2.37	201	18.34
62	Reed Street	00549-31	Erie	837	16	1	333,909	1,958	0.58	399	2.34	171	1.19

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

Penn Power													
Circuit Rank	Substation	Circuit	District	Average Customers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI	MAIFI
1	JAMESTOWN	W-162	CLARK	1,043	33	0	875,240	2,786	5.34	839.16	2.671	314.2	0.0
2	PERRY	W-156	CLARK	1,051	60	1	626,974	3,268	3.82	596.55	3.109	191.9	0.0
3	SENECA	W701	ZELIENOPLE	2,071	44	4	515,957	9,756	3.15	249.13	4.711	52.9	0.0
4	KOPPEL	D-531	NEW CASTLE	943	39	1	464,968	1,604	2.84	493.07	1.701	289.9	0.0
5	ELLWOOD SW STR	D590	ZELIENOPLE	1,230	50	0	421,615	1,575	2.57	342.78	1.280	267.7	0.0
6	THOMPSON RUN	D550	ZELIENOPLE	975	32	0	386,273	1,997	2.36	396.18	2.048	193.4	0.0
7	SENECA	W700	ZELIENOPLE	1,023	57	0	360,711	1,963	2.20	352.60	1.919	183.8	0.0
8	CANAL	W-102	CLARK	1,505	46	0	347,156	2,439	2.12	230.67	1.621	142.3	0.0
9	JACKSON	W732	ZELIENOPLE	1,223	22	0	304,631	1,495	1.86	249.09	1.222	203.8	0.0

West Penn Power												
Circuit Rank	Substation	Circuit	District	Average Customers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI
1	Flintstone	Chaneyville	Hyndman	566	56	1	1,995,878	3,759	2.78	3,526	6.64	531
2	Shaffers Corner	Seventh St Rd	Arnold	2,025	29	1	1,512,159	7,711	2.11	747	3.81	196
3	Emporium	Emporium Jct	St Marys	598	28	0	1,483,152	2,305	2.07	2,480	3.85	643
4	Rutan	Bristoria	Jefferson	1,128	70	0	1,320,618	4,626	1.84	1,171	4.10	285
5	Driftwood	Driftwood	St Marys	980	47	0	1,181,962	1,879	1.65	1,206	1.92	629
6	Bedford Road	Rt 220 North	Hyndman	792	29	1	1,058,054	4,068	1.47	1,336	5.14	260
7	St. Clair	Lesnett	Boyce	1,644	19	4	1,006,330	7,791	1.40	612	4.74	129
8	Smith	Francis Mine	Washington Pa	1,434	61	3	999,944	5,841	1.39	697	4.07	171
9	Waterville	Waterville	State College	358	23	1	996,189	3,823	1.39	2,783	10.68	261
10	Kersey	Shelvey	St Marys	939	17	1	978,006	1,666	1.36	1,042	1.77	587
11	Dutch Fork	Claysville	Washington Pa	1,605	74	1	941,158	5,367	1.31	586	3.34	175
12	Thompson Farm	Toftrees	State College	1,247	12	4	939,095	5,990	1.31	753	4.80	157
13	Franklin	Rogersville	Jefferson	833	40	1	936,506	1,734	1.30	1,124	2.08	540
14	Emporium	West Creek	St Marys	1,036	34	1	906,574	1,627	1.26	875	1.57	557
15	Kane	Russell City	St Marys	705	23	0	905,911	2,459	1.26	1,285	3.49	368
16	Peters	Library	Boyce	1,807	14	1	826,806	3,506	1.15	458	1.94	236
17	Piney Fork	Gillhall	Charleroi	2,199	22	1	813,552	3,960	1.13	370	1.80	205
18	Ridgway	Montmorenci	St Marys	689	21	3	798,179	2,256	1.11	1,158	3.27	354
19	Avella	W Middletown	Washington Pa	1,134	45	0	785,303	2,761	1.09	693	2.43	284
20	Peters	Mcmurray	Boyce	1,435	19	1	782,438	2,723	1.09	545	1.90	287
21	Smith	Florence	Washington Pa	735	65	0	719,733	2,816	1.00	979	3.83	256
22	Bethlen	Darlington	Latrobe	1,233	74	0	707,061	2,479	0.98	573	2.01	285
23	St. Clair	Valley	Boyce	2,601	35	1	703,157	5,705	0.98	270	2.19	123
24	Smith	Burgettstown	Washington Pa	1,864	49	0	679,808	4,240	0.95	365	2.27	160
25	Mateer	Dime Rd	Arnold	1,208	58	0	676,695	1,888	0.94	560	1.56	358
26	Youngwood	Spare	Jeannette	585	25	4	663,403	4,719	0.92	1,134	8.07	141
27	Amity	Amity	Washington Pa	525	35	1	658,950	1,803	0.92	1,255	3.43	365
28	Sewickley	Wendel	Jeannette	969	28	1	636,941	2,949	0.89	657	3.04	216
29	Rutan	Windridge	Jefferson	439	36	0	621,975	2,238	0.87	1,417	5.10	278
30	Karns City	Kaylor	Butler	1,148	38	1	612,180	3,270	0.85	533	2.85	187
31	Krendale	Unionville	Butler	1,451	37	2	606,703	4,783	0.84	418	3.30	127
32	Fort Palmer	West Fairfield	Latrobe	969	69	0	602,110	2,357	0.84	621	2.43	255
33	Weedville	Weedville	St Marys	1,371	36	0	596,028	2,869	0.83	435	2.09	208

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

West Penn Power												
Circuit Rank	Substation	Circuit	District	Average Customers	Outages	Lockouts	Customer Minutes	Customers Affected	SAIDI Impact	SAIDI	SAIFI	CAIDI
34	Silverville 138-12	Cole Road	Arnold	1,964	60	0	586,975	3,421	0.82	299	1.74	172
35	Vanceville	Vanceville	Charleroi	1,429	51	0	582,937	2,446	0.81	408	1.71	238
36	St. Clair	Skyridge	Boyce	895	15	1	573,726	3,775	0.80	641	4.22	152
37	Luxor	Rolling Acres	Latrobe	924	32	2	563,737	2,621	0.78	610	2.84	215
38	Dutch Fork	W Alexander	Washington Pa	1,162	48	2	537,084	4,293	0.75	462	3.69	125
39	Kiski Valley Distrib	Kittanning Rd	Arnold	1,787	50	0	536,069	2,937	0.75	300	1.64	183
40	White Valley	Export	Jeannette	2,128	40	0	526,480	4,873	0.73	247	2.29	108

**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	Progress of Remedial Work or Date	Appeared in 2 of 4 Quarters
1	Mountain	00744-4	<i>Performance was driven by trees off ROW (88%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Perform targeted three phase circuit assessment	Complete	Apr-18	
			Install Supervisory Control and Data Acquisition (SCADA) switch	Complete	Apr-18	
			On cycle tree trimming	Complete	Jun-18	
			Enhanced tree trimming	Complete	Jun-18	
			Perform accelerated backbone and three phase circuit assessment	Complete	Mar-19	
			Upgrade Zone 2 recloser to Emergency Management System ("EMS") radio controlled	To be Completed 2019	50%	

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date	Appeared in 2 of 4 Quarters
2	North Cornwall	00610-2	<i>Performance was driven by vehicle accidents (57%) and line failure (17%).</i>			2Q 2018 4Q 2018 1Q 2019
			Enhanced tree trimming	Complete	Jun-18	
			Post-storm circuit patrol	Complete	Aug-18	
			Install SCADA devices #3	Complete	Sep-18	
			Install SCADA devices #4	Complete	Sep-18	
			Install SCADA devices #5	Complete	Sep-18	
			Install SCADA devices #6	Complete	Sep-18	
			Install SCADA devices #7	Complete	Sep-18	
			Install SCADA devices #9	Complete	Sep-18	
			Install SCADA devices #10	Complete	Sep-18	
			Protection review	Complete	Sep-18	
			Thermovision and overhead inspection	Complete	Oct-18	
			Install SCADA devices #1	Complete	Nov-18	
			Install SCADA devices #2	Complete	Nov-18	
			Install SCADA devices #8	Complete	Nov-18	
			Three-phase overhead inspection	Complete	Jan-19	
			Repair/replace high priority items identified during inspection	To be Completed 2019	0%	
Remove switch that limits backfeed capacity	To be Completed 2019	0%				
Porcelain cutout replacement in the lockout zone	To be Completed 2019	0%				
3	Shawnee	00895-3	<i>Performance was driven by equipment failure (63%) and trees off ROW (22%)</i>			2Q 2018 1Q 2019
			Install SCADA switch #1	Complete	Nov-18	
			Install SCADA switch #2	Complete	Nov-18	
			Install SCADA switch #3	Complete	Nov-18	

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date	Appeared in 2 of 4 Quarters
4	Lickdale	00625-2	<i>Performance was driven by trees off ROW (59%) and equipment failure (10%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Enhanced tree trimming	Complete	Jun-18	
			Thermovision and overhead inspection	Complete	Apr-18	
			Post-storm circuit patrol	Complete	Aug-18	
			On cycle tree trimming	Complete	Dec-18	
			Three-phase overhead inspection	Complete	Jan-19	
			Repair/replace high priority items identified during inspection	Complete	Feb-19	
			Repair/replace high priority items identified during inspection	To be Completed 2019	0%	
			Install SCADA device #1	To be Completed 2019	0%	
Install SCADA device #2	To be Completed 2019	0%				
5	Bern Church	00789-1	<i>Performance was driven by an outage during a storm caused by trees off ROW and lightning (47%), outages caused by trees off ROW (16%) and trees on ROW (7%).</i>			3Q 2018 4Q 2018 1Q 2019
			Install additional fault indicators	Complete	Aug-18	
			Three-phase overhead inspection	Complete	Nov-18	
			On cycle tree trimming	Complete	Dec-18	
			Three-phase overhead inspection	Complete	Mar-19	
			Replace mainline pole from inspection #1	To be Completed 2019	25%	
Replace mainline pole from inspection #2	To be Completed 2019	50%				
6	Carsonia	00764-1	<i>Performance was driven by an outage caused by equipment failure (62%) and trees off ROW during a storm (15%).</i>			3Q 2018 1Q 2019
			Targeted mainline circuit rehabilitation	Complete	May-18	
			Install SCADA switch	Complete	Jul-18	
			On cycle tree trimming	Complete	Nov-18	
			Targeted forestry inspection	Complete	Mar-19	
Overhead circuit inspection	To be Completed 2019	0%				
7	Huffs Church	00600-1	<i>Performance driven by an outage caused by a tree off ROW (50%) and an outage caused by a vehicle (23%).</i>			
			Overhead mainline circuit inspection	Complete	Nov-18	
			Thermovision and overhead inspection	Complete	Jan-19	
			Targeted forestry inspection	Complete	Feb-19	
			Replace mainline guy wire from inspection	Complete	Mar-19	
			Repair mainline guy wire from inspection	To be Completed 2019	25%	
			Replace mainline pole from inspection	To be Completed 2019	25%	
Replace crossarm from inspection	To be Completed 2019	25%				

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date	Appeared in 2 of 4 Quarters
8	Moselem	00782-1	<i>Performance was driven by an outage caused by a vehicle accident (48%) and an outage related to the vehicle accident (18%).</i>			3Q 2018 4Q 2018 1Q 2019
			Replace mainline pole	Complete	Sept-18	
			Overhead mainline circuit inspection	Complete	Nov-18	
			Thermovision and overhead inspection	Complete	Jan-19	
			Install SCADA switch #3	To be Completed 2019	25%	
			Install SCADA recloser #1	To be Completed 2019	25%	
			Install SCADA recloser #2	To be Completed 2019	25%	
			Install SCADA switch #1	To be Completed 2019	50%	
Install SCADA switch #2	To be Completed 2019	50%				
9	Gardners	00754-4	<i>Performance was driven by trees off ROW (94%).</i>			4Q 2018 1Q 2019
			Perform accelerated backbone and three phase circuit assessment	Complete	Feb-19	
			Thermovision and overhead inspection	Complete	Feb-19	
			On cycle tree trimming	Complete	Mar-19	
			Upgrade Zone 2 recloser to EMS radio controlled	To be Completed 2019	50%	
10	Ottsville	00660-3	<i>Performance was driven by trees off ROW (96%).</i>			
			Install SCADA recloser	Complete	Dec-18	
			Install SCADA switch #1	Complete	Dec-18	
			Install SCADA switch #2	Complete	Dec-18	
			Thermovision and overhead inspection	Complete	Feb-19	
			Replace pole from inspection	To be Completed 2019	50%	

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date	Appeared in 2 of 4 Quarters
11	Lynnville	00735-1	<i>Performance was driven by an outage caused by a tree off ROW during a storm (38%), animal (29%) and broken poles during a storm (19%).</i>			2Q 2018 4Q 2018 1Q 2019
			Enhanced tree trimming	Complete	Sept-18	
			Replace pole from inspection #1	Complete	Oct-18	
			Replace pole from inspection #2	Complete	Oct-18	
			On cycle tree trimming	Complete	Nov-18	
			Replace pole from inspection #3	Complete	Nov-18	
			Replace pole from inspection #4	Complete	Nov-18	
			Replace pole from inspection #5	Complete	Dec-18	
			Replace pole from inspection #6	Complete	Dec-18	
			Upgrade mainline recloser	Complete	Mar-19	
			Overhead circuit inspection	To be Completed 2019	0%	
			Replace line clamp from Thermovision inspection #1	To be Completed 2019	50%	
			Replace line clamp from Thermovision inspection #2	To be Completed 2019	50%	
			Replace pole from Thermovision inspection	To be Completed 2019	50%	
			Replace arrester from Thermovision inspection	To be Completed 2019	50%	
Install SCADA switch #1	To be Completed 2019	50%				
Install SCADA switch #2	To be Completed 2019	50%				
Install SSCADA switch #3	To be Completed 2019	50%				
12	Mountain	00740-4	<i>Performance was driven by trees off ROW (68%) and equipment failure (11%).</i>			4Q 2018 1Q 2019
			Upgrade Zone 2 recloser to EMS radio controlled	Complete	Nov-18	
			Perform accelerated backbone and three phase circuit assessment	Complete	Nov-18	
			On cycle tree trimming	Complete	Dec-18	
			Perform accelerated backbone and three phase circuit assessment	Complete	Feb-19	
			Install SCADA recloser #1	To be Completed 2019	50%	
			Install SCADA recloser #2	To be Completed 2019	50%	

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date	Appeared in 2 of 4 Quarters
13	S Nazareth	00809-3	<i>Performance was driven by equipment failure (58%), vehicle accidents (15%) and forced outages (14%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Install SCADA switch	Complete	Nov-18	
			Replace pole from inspection	Complete	Jan-19	
			Three-phase overhead inspection	Complete	Feb-19	
			Targeted mainline circuit rehabilitation	To be Completed 2019	0%	
			Construct circuit tie	To be Completed 2019	20%	
			Install SCADA recloser #1	To be Completed 2019	50%	
			Install SCADA recloser #2	To be Completed 2019	50%	
			Install SCADA recloser #3	To be Completed 2019	50%	
Install SCADA recloser #4	To be Completed 2019	50%				
14	Shawnee	00899-3	<i>Performance was driven by trees off ROW (43%), unknown outages (25%) and equipment failure (21%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Install SCADA switch #1	Complete	Nov-18	
			Install SCADA switch #2	Complete	Nov-18	
			Install SCADA switch #3	Complete	Nov-18	
			Three-phase overhead inspection	Complete	Jan-19	
Backbone Thermovision inspection	Complete	Feb-19				
15	Lickdale	00626-2	<i>Performance was driven by equipment failure (68%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Thermovision and overhead inspection	Complete	Apr-18	
			Targeted mainline rehabilitation	Complete	Sep-18	
			On cycle tree trimming	Complete	Dec-18	
			Three-phase overhead inspection	Complete	Jan-19	
			Repair/replace high priority items identified during inspection	Complete	Mar-19	
			Install SCADA switch #1	To be Completed 2019	0%	
			Install SCADA switch #2	To be Completed 2019	0%	
			Install SCADA switch #3	To be Completed 2019	0%	
			Install SCADA recloser #1	To be Completed 2019	0%	
			Gang operated air brake ("GOAB") replacement	To be Completed 2019	0%	
			Targeted mainline circuit rehabilitation #1	To be Completed 2019	0%	
			Targeted mainline circuit rehabilitation #2	To be Completed 2019	0%	
Targeted mainline circuit rehabilitation #3	To be Completed 2019	0%				

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date	Appeared in 2 of 4 Quarters
16	North Bangor	00813-3	<i>Performance was driven by trees off ROW (39%) and equipment failure (37%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Replace priority poles from wood pole inspection	Complete	Apr-18	
			Three-phase overhead inspection	Complete	Feb-19	
			On cycle tree trimming	To be Completed 2019	0%	
17	Flying Hills	00777-1	<i>Performance was driven by trees off ROW (55%), underground cable failure (8%) and underground cable dig-in (15%)</i>			
			Enhanced tree trimming	Complete	Sept-18	
			Overhead mainline circuit inspection	Complete	Dec-18	
			Targeted forestry inspection	Complete	Mar-19	
			Replace mainline underground cable in large residential development	To be Completed 2019	75%	
18	Birdsboro	00756-1	<i>Performance was driven by trees off ROW (48%) and an outage caused by a tree off ROW during a storm (40%)</i>			2Q 2018 3Q 2018 1Q 2019
			Replace poles from inspection	Complete	Apr-18	
			Install new mainline switch	Complete	Sept-18	
			Overhead circuit inspection	Complete	Sept-18	
			On cycle tree trimming	Complete	Dec-18	
			Overhead mainline circuit inspection	Complete	Mar-19	
			Mainline tie recloser upgrade	Complete	Mar-19	
			Targeted forestry inspection	Complete	Mar-19	
			Targeted tree trimming to improve reliability	To be Completed 2019	25%	
Install additional mainline switch	To be Completed 2019	25%				
19	Straban	00676-4	<i>Performance was driven by trees off ROW (70%) and lightning (10%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Install fault indicators	Complete	Jun-18	
			Replace poles identified during wood pole inspection	Complete	Jun-18	
			Perform accelerated backbone and three phase circuit assessment	Complete	Nov-18	
			Perform accelerated backbone and three phase circuit assessment	Complete	Feb-19	
			Thermovision and overhead inspection	Complete	Feb-19	
			Install SCADA recloser	To be Completed 2019	50%	
Provide additional tie capacity on the circuit	To be Completed 2019	75%				

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date	Appeared in 2 of 4 Quarters
20	Crossroads	00728-4	<i>Performance was driven by trees off ROW (70%) and line failure (15%).</i>			
			Install SCADA switch #1	Complete	Jun-18	
			Install SCADA switch #2	Complete	Dec-18	
			Install SCADA recloser #1	Complete	Dec-18	
			Post-storm circuit patrol	Complete	Feb-19	
			Lockout zone circuit inspection	Complete	Apr-19	
21	Shawnee	00837-3	<i>Performance was driven by trees off ROW (66%) and equipment failure (25%).</i>			2Q 2018 3Q 2018 1Q 2019
			Three-phase overhead inspection	Complete	Jan-19	
			Install SCADA recloser	To be Completed 2019	0%	
			On cycle tree trimming	To be Completed 2019	0%	
22	W Boyertown	00714-1	<i>Performance was driven by trees off ROW (92%).</i>			4Q 2018 1Q 2019
			Targeted forestry inspection	Complete	Jul-18	
			Targeted forestry inspection	Complete	Nov-18	
			Three-phase overhead inspection	Complete	Nov-18	
			Targeted forestry inspection	Complete	Feb-19	
			Three-phase overhead inspection	Complete	Mar-19	
			Replace mainline pole from inspection	To be Completed 2019	50%	
23	Barto	00705-1	<i>Performance was driven by trees off ROW (56%) and a tap outage (8%).</i>			4Q 2018 1Q 2019
			Targeted mainline circuit rehabilitation	Complete	Jul-18	
			Thermovision and overhead inspection	Complete	Oct-18	
			Three-phase overhead inspection	Complete	Mar-19	

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date	Appeared in 2 of 4 Quarters
24	Bernville	00786-1	<i>Performance was driven by outages caused by trees off ROW (58%), line failure (14%) and equipment failure (12%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Replace arrester on mainline switch from inspection	Complete	Oct-18	
			Replace porcelain cutout with polymer cutout from inspection	Complete	Oct-18	
			Replace pole from inspection #1	Complete	Oct-18	
			Replace crossarm from inspection #1	Complete	Nov-18	
			Replace pole from inspection #2	Complete	Nov-18	
			Replace pole from inspection #3	Complete	Nov-18	
			Replace crossarm from inspection #2	Complete	Dec-18	
			Replace pole from inspection #4	Complete	Dec-18	
			Replace crossarm from inspection #3	Complete	Dec-18	
			Install SCADA switch #1	Complete	Dec-18	
			Install SCADA switch #2	Complete	Dec-18	
			Three-phase overhead inspection	Complete	Mar-19	
			Targeted mainline circuit rehabilitation - engineering review	To be Completed 2019	25%	
			Replace crossarm brace from Thermovision inspection	To be Completed 2019	25%	
			Replace crossarm brace from Thermovision inspection	To be Completed 2019	25%	
			Replace mainline crossarm braces from inspection	To be Completed 2019	25%	
			Replace line clamp from Thermovision inspection	To be Completed 2019	50%	
			Replace crossarm brace from Thermovision inspection	To be Completed 2019	50%	
			Install SCADA recloser	To be Completed 2019	50%	
Install SCADA switch #1	To be Completed 2019	50%				
Install SCADA switch #2	To be Completed 2019	50%				
25	Shawnee	00822-3	<i>Performance was driven by vehicle accidents (37%) equipment failure (30%), and line failure (14%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Porcelain cutout replacement #1	Complete	Dec-18	
			Porcelain cutout replacement #2	Complete	Dec-18	
			Porcelain cutout replacement #3	Complete	Dec-18	
			Three-phase overhead inspection	Complete	Jan-19	
			Backbone Thermovision inspection	Complete	Feb-19	
			Install SCADA switch	To be Completed 2019	50%	
			On cycle tree trimming	To be Completed 2019	0%	

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date	Appeared in 2 of 4 Quarters
26	Gardners	00752-4	<i>Performance was driven by trees off ROW (68%).</i>			3Q 2018 4Q 2018 1Q 2019
			Replace poles identified during wood pole inspection	Complete	Jun-18	
			Repair damage caused by tree	Complete	Jun-18	
			Install fault indicators	Complete	Jun-18	
			Thermovision and overhead inspection	Complete	Nov-18	
			Perform accelerated backbone and three phase circuit assessment	Complete	Nov-18	
			Perform accelerated backbone and three phase circuit assessment	Complete	Mar-19	
			On cycle tree trimming	To be Completed 2019	0%	
27	Riverview	00793-1	<i>Performance was driven by outages caused by trees off ROW (44%) and lightning (36%).</i>			4Q 2018 1Q 2019
			Replace crossarm from inspection	Complete	Jun-18	
			Overhead circuit inspection	Complete	Aug-18	
			Three-phase overhead inspection	Complete	Mar-19	
			Replace mainline pole from inspection	Complete	Mar-19	
			Install mainline tap fuse	To be Completed 2019	50%	
			Install SCADA recloser #1	To be Completed 2019	50%	
			Install SCADA switch #1	To be Completed 2019	50%	
			Install SCADA switch #2	To be Completed 2019	50%	
Install SCADA switch #3	To be Completed 2019	50%				
28	Queen Street	00522-4	<i>Performance was driven by line failure (24%), wind (20%), unknown cause (20%) and trees off ROW (18%).</i>			
			Post-storm circuit patrol	Complete	Feb-19	
			Complete circuit protection study	Complete	Feb-19	
			Complete engineering review for additional remote-control devices	Complete	Feb-19	
29	Myerstown	00751-2	<i>Performance was driven by line failure (47%) and unknown cause (44%).</i>			3Q 2018 4Q 2018 1Q 2019
			Post-storm circuit patrol	Complete	Aug-18	
			Review backfeed coordination	Complete	Aug-18	
			Install SCADA switch	To be Completed 2019	0%	

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date	Appeared in 2 of 4 Quarters
30	North Bangor	00838-3	<i>Performance was driven by vehicle accidents (35%), equipment failure (29%) and trees off ROW (22%).</i>			
			Replace recloser control	Complete	Mar-19	
			Replace SCADA switch	Complete	Mar-19	
			On cycle tree trimming	To be Completed 2019	0%	
			Install SCADA recloser #1	To be Completed 2019	50%	
			Install SCADA recloser #2	To be Completed 2019	50%	
31	Ferndale	00871-3	<i>Performance was driven by trees off ROW (62%) and unknown outages (27%).</i>			
			Repair items identified during Thermovision inspection	Complete	Apr-18	
			Overhead circuit inspection	Complete	Sep-18	
			Repair items identified during circuit inspection	Complete	Oct-18	
			Three-phase overhead inspection	Complete	Feb-19	
32	Newberry	00577-4	<i>Performance was driven by trees off ROW (86%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			On cycle tree trimming	Complete	Jun-18	
			Thermovision and overhead inspection	Complete	Nov-18	
			Repair/replace high priority items identified during overhead inspection	Complete	Nov-18	
			Replace pole from inspection #1	Complete	Nov-18	
			Replace pole from inspection #2	Complete	Nov-18	
			Replace pole from inspection #3	Complete	Nov-18	
			Install SCADA switch	To be Completed 2019	0%	
33	Raubsville	00079-3	<i>Performance was driven by trees off ROW (69%) and vehicle accidents (10%).</i>			
			Repair items identified during circuit inspection	Complete	Feb-19	
			Thermovision and overhead inspection	Complete	Mar-19	
34	Saylorsburg	00114-3	<i>Performance was driven by trees off ROW (62%) and unknown outages (20%).</i>			
			On cycle tree trimming	To be Completed 2019	0%	

Met-Ed							
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date	Appeared in 2 of 4 Quarters	
35	19th and Cotton	00156-1	<i>Performance was driven by outages caused by trees off ROW (62%), line failure (16%) and equipment failure (10%).</i>				3Q 2018 4Q 2018 1Q 2019
			Thermovision and overhead inspection	Complete	Apr-18		
			Replace crossarm braces from inspection	Complete	Apr-18		
			Upgrade mainline recloser	Complete	May-18		
			Targeted mainline forestry inspection	Complete	Oct-18		
			Three-phase overhead inspection	Complete	Nov-18		
			Replace insulator from inspection	Complete	Nov-18		
			Upgrade additional mainline recloser	Complete	Nov-18		
			Overhead circuit inspection	To be Completed 2019	Mar-19		
			Repair mainline spacers from inspection #1	To be Completed 2019	25%		
			Repair mainline spacers from inspection #2	To be Completed 2019	25%		
			Repair mainline spacers from inspection #3	To be Completed 2019	25%		
36	Allen	00502-4	<i>Performance was driven by line failure (56%), trees off ROW (28%) and equipment failure (11%).</i>				3Q 2018 4Q 2018 1Q 2019
			Perform post-storm backbone and three phase circuit patrol	Complete	Apr-18		
			Perform accelerated backbone and three phase circuit assessment	Complete	Nov-18		
			Targeted mainline circuit rehabilitation	Complete	Dec-18		
			Perform accelerated backbone and three phase circuit assessment	Complete	Feb-19		
			Thermovision and overhead inspection	Complete	Feb-19		
			Replace underground exit	Complete	Mar-19		
			On cycle tree trimming	To be Completed 2019	0%		
			Upgrade Zone 2 recloser to EMS radio controlled	To be Completed 2019	50%		
Install SCADA recloser	To be Completed 2019	50%					
37	Shawnee	00860-3	<i>Performance was driven by trees off ROW (63%) and unknown outages (20%).</i>				3Q 2018 4Q 2018 1Q 2019
			Porcelain cutout replacement	Complete	Dec-18		
			Replace porcelain cutouts on circuit three phase with polymer cutouts	Complete	Dec-18		
			Replace porcelain cutouts on circuit three phase with polymer cutouts	Complete	Dec-18		
			Targeted mainline circuit rehabilitation	Complete	Dec-18		
			On cycle tree trimming	Complete	Dec-18		
			Three-phase overhead inspection	Complete	Jan-19		
Replace priority reject poles	Complete	Mar-19					

Met-Ed						
Rank	Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date	Appeared in 2 of 4 Quarters
38	South Hamburg	00801-1	<i>Performance was driven by vehicle outages (38%), trees off ROW (27%) and line and equipment failure (18%).</i>			4Q 2018 1Q 2019
			Replace line clamp from Thermovision inspection	Complete	Apr-18	
			Overhead circuit inspection	Complete	Apr-18	
			Install SCADA switch #1	Complete	Nov-18	
			Install SCADA switch #2	Complete	Nov-18	
			Install SCADA switch #3	Complete	Nov-18	
			Install SCADA recloser #1	Complete	Nov-18	
			Install SCADA recloser #2	Complete	Dec-18	
			Replace mainline splice from Thermovision inspection	Complete	Dec-18	
			Replace pole from inspection	Complete	Feb-19	
			Overhead mainline circuit inspection	Complete	Mar-19	
			Replace mainline crossarm from inspection #1	To be Completed 2019	25%	
			Replace mainline crossarm from inspection #2	To be Completed 2019	25%	
			Replace mainline crossarm from inspection #3	To be Completed 2019	25%	
			Replace mainline crossarm from inspection #4	To be Completed 2019	25%	
			Replace mainline crossarm from inspection #5	To be Completed 2019	25%	
			Replace crossarm from inspection	To be Completed 2019	50%	
Replace crossarm from inspection	To be Completed 2019	50%				
Replace crossarm from inspection	To be Completed 2019	50%				
39	Swatara Hill	00763-2	<i>Performance was driven by trees off ROW - limb (29%), trees off ROW (24%), and line failure (25%).</i>			3Q 2018 4Q 2018 1Q 2019
			Repair items found during inspection	Complete	Oct-18	
			Post-storm circuit patrol	Complete	Aug-18	
			On cycle tree trimming	Complete	Dec-18	
			Three-phase overhead inspection	Complete	Jan-19	

Met-Ed					
Unranked circuits appearing 2 or more quarters in the last 4 quarters					
Substation	Circuit	2Q 2018	3Q 2018	4Q 2018	1Q 2019
Belfast	00812-3		X	X	
Birchwood	00624-3	X	X	X	
Bushkill Falls	00698-3		X	X	
Friedensburg	00769-1		X	X	
Frystown	00701-2	X	X		
Hill	00737-4	X	X		
Myerstown	00750-2	X	X		
Nisky	00176-3		X	X	
North Lebanon	00715-2	X	X	X	
Northwood	00821-3	X	X	X	
Orrtanna	00764-4	X	X		
South Hamburg	00741-1	X	X		
Smith Street	00219-4		X	X	
Swatara Hill	00765-2		X	X	
Turf Club	00724-2	X	X		
Walker	00865-3	X	X		
Windsor	00316-4	X	X		

Met-Ed				
Unranked circuits with remedial actions scheduled to be or recently completed				
Substation	Circuit	Remedial Action Planned or Taken	Status of Remedial Work	Progress of Remedial Work or Date Completed
Belfast	00812-3	Install SCADA recloser	To be Completed 2019	0%
		Install SCADA recloser	To be Completed 2019	0%
		Overhead circuit inspection	To be Completed 2019	0%
Birchwood	00624-3	Install SCADA recloser	To be Completed 2019	0%
		Overhead circuit inspection	To be Completed 2019	0%
Clearfield	00631-3	Construct circuit tie	To be Completed 2019	50%
Clearfield	00632-3	Construct circuit tie	To be Completed 2019	50%
Ferndale	00076-3	On cycle tree trimming	To be Completed 2019	0%
Friedensburg	00769-1	Three-phase overhead inspection	Complete	Mar-19
		Install Supervisory Control and Data Acquisition (SCADA) switch	To be Completed 2019	25%
		Install Supervisory Control and Data Acquisition (SCADA) switch	To be Completed 2019	25%
Leesport	00812-1	Three-phase overhead inspection	Complete	Mar-19
		On cycle tree trimming	To be Completed 2019	0%
Menges Mills	00543-4	Replace/repair high priority items identified during overhead circuit patrol	Complete	Feb-19
		Perform accelerated backbone and three phase circuit assessment	Complete	Feb-19
North Lebanon	00715-2	Install additional SCADA #1	To be Completed 2019	0%
		Install additional SCADA #2	To be Completed 2019	0%
		Install additional SCADA #3	To be Completed 2019	0%
		Install additional SCADA #4	To be Completed 2019	0%
		Install additional SCADA #5	To be Completed 2019	0%
		Install additional SCADA #6	To be Completed 2019	0%
		Install additional SCADA #7	To be Completed 2019	0%
		Install additional SCADA #8	To be Completed 2019	0%
		Install additional SCADA #9	To be Completed 2019	0%
Northwood	00821-3	Three-phase overhead inspection	To be Completed 2019	0%
		Cycle tree trimming	To be Completed 2019	0%
Orrtanna	00764-4	Targeted mainline circuit rehabilitation	To be Completed 2019	0%

<b>Met-Ed</b>				
<b>Unranked circuits with remedial actions scheduled to be or recently completed</b>				
<b>Substation</b>	<b>Circuit</b>	<b>Remedial Action Planned or Taken</b>	<b>Status of Remedial Work</b>	<b>Progress of Remedial Work or Date Completed</b>
Swatara Hill	00765-2	Install SCADA recloser #1	To be Completed 2019	0%
		Install SCADA recloser #2	To be Completed 2019	0%
		Install SCADA switch #1	To be Completed 2019	0%
		Three-phase overhead inspection	Complete	Feb-19
Turf Club	00724-2	Spot tree trimming	Complete	Dec-18
Windsor	00797-4	Install additional Supervisory Control and Data Acquisition (SCADA) switch #1	To be Completed 2019	50%
		Install additional Supervisory Control and Data Acquisition (SCADA) switch #2	To be Completed 2019	50%
		Install additional Supervisory Control and Data Acquisition (SCADA) switch #3	To be Completed 2019	50%
		Install additional Supervisory Control and Data Acquisition (SCADA) switch #4	To be Completed 2019	50%
		Replace/repair high priority items identified during overhead circuit patrol	To be Completed 2019	89%

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	Grover	00527-63	<i>Performance was driven by trees off ROW (80%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair line failure	Complete	May-18	
			Repair damage caused by trees during a storm	Complete	May-18	
			Repair damage caused by trees during a storm	Complete	Sep-18	
2	East Pike	00095-13	<i>Performance was driven by trees off ROW (56%), line failure (22%) and equipment failure (16%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair line failure	Complete	Apr-18	
			Repair line failure	Complete	Jun-18	
			Repair equipment failure	Complete	Jun-18	
			Repair damage caused by trees during a storm	Complete	Aug-18	
			Repair damage caused by trees during a storm	Complete	Nov-18	
			Repair line failure	Complete	Jan-19	
			Repair damage caused by trees	Complete	Feb-19	
On cycle tree trimming	To be Completed 2019	15%				
3	Erie South	00259-31	<i>Performance was driven by equipment failure (85%).</i>			3Q 2018 4Q 2018 1Q 2019
			Repair equipment failure	Complete	May-18	
			Repair equipment failure	Complete	Sep-18	
			On cycle tree clearing	Complete	Oct-18	
			Repair equipment failure	Complete	Nov-18	
			Install advanced distribution protective devices	Complete	Dec-18	
			Targeted circuit rehabilitation	To be Completed 2019	50%	
			Install new GOAB switch	To be Completed 2019	0%	
4	Warren South	00220-41	<i>Performance was driven by trees off ROW (82%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair equipment failure	Complete	May-18	
			Repair damage caused by trees during a storm	Complete	Jul-18	
			Porcelain cutout replacement	Complete	Jul-18	
			Repair damage caused by trees during a storm	Complete	Sep-18	
			Install advanced distribution protective devices	Complete	Dec-18	
			Repair damage caused by trees	Complete	Jan-19	
			On cycle tree trimming	To be Completed 2019	68%	

Penelee						
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
5	Natl Forge Sw Sta	00577-41	<i>Performance was driven by trees off ROW (82%).</i>			4Q 2018 1Q 2019
			Repair damage caused by trees	Complete	Oct-18	
			Repair damage caused by trees	Complete	Oct-18	
6	Blairsville East	00080-13	<i>Performance was driven by equipment failure (72%) and trees off ROW (25%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair equipment failure	Complete	Jun-18	
			Repair damage caused by trees during a storm	Complete	Jul-18	
			Repair damage caused by trees during a storm	Complete	Sep-18	
7	Lenox	00755-65	<i>Performance was driven by trees off ROW (73%) and line failure (26%).</i>			3Q 2018 4Q 2018 1Q 2019
			Repair line failure	Complete	Jun-18	
			Repair damage caused by trees during a storm	Complete	Jul-18	
			Repair damage caused by trees during a storm	Complete	Sep-18	
			Repair line failure	Complete	Sep-18	
8	Seward	00079-11	<i>Performance was driven by trees off ROW (93%).</i>			3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	Sep-18	
			Circuit inspection	To be Completed 2019	0%	
9	Piney	00523-51	<i>Performance was driven by trees off ROW (85%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	May-18	
			Repair damage caused by trees during a storm	Complete	May-18	
			Repair damage caused by trees	Complete	Jun-18	
			Repair damage caused by trees	Complete	Sep-18	
			Repair damage caused by trees	Complete	Nov-18	
			Install new radio controlled switch	To be Completed 2019	50%	
			Circuit inspection	To be Completed 2019	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	
10	DuBois	00137-23	<i>Performance was driven by trees off ROW (67%) and equipment failure (15%).</i>				2Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	Sep-18		
			Repair damage caused by trees	Complete	Nov-18		
			Targeted circuit rehabilitation	Complete	Nov-18		
			Repair damage caused by trees during a storm	Complete	Jan-19		
			Repair damage caused by trees during a storm	Complete	Feb-19		
			On cycle tree trimming	To be Completed 2019	13%		
11	Madera	00165-22	<i>Performance was driven by trees off ROW (89%).</i>				2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	May-18		
			Repair damage caused by trees during a storm	Complete	Jul-18		
			Circuit inspection	Complete	Jul-18		
			Repair damage caused by trees	Complete	Nov-18		
			Repair damage caused by trees during a storm	Complete	Jan-19		
			Repair damage caused by wind	Complete	Feb-19		
Install advanced distribution protective devices	To be Completed 2019	0%					
12	Madera	00166-22	<i>Performance was driven by recloser operation of an unknown cause (26%), equipment failure (26%), trees off ROW (22%), and vehicle (18%).</i>				2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	May-18		
			Restore recloser operation of unknown cause	Complete	Sep-18		
			Restore recloser operation of unknown cause	Complete	Sep-18		
			Repair equipment failure	Complete	Nov-18		
			Repair equipment failure	Complete	Jan-19		
Repair damage caused by a vehicle	Complete	Feb-19					
13	Timblin	00103-23	<i>Performance was driven by trees off ROW (83%).</i>				2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Circuit inspection	Complete	Oct-18		
			Repair damage caused by trees during a storm	Complete	Nov-18		
			Repair line failure	Complete	Feb-19		
			Targeted circuit rehabilitation	To be Completed 2019	50%		
On cycle tree trimming	To be Completed 2019	37%					

Penelee							
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	
14	Buffalo Road	00265-31	<i>Performance was driven by line failure (63%) and equipment failure (32%).</i>				2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair equipment failure	Complete	May-18		
			Repair equipment failure	Complete	Jun-18		
			Restored fuse operation of unknown cause	Complete	Aug-18		
			Repair line failure	Complete	Nov-18		
			Circuit inspection	To be Completed 2019	0%		
15	North Warren	00596-41	<i>Performance was driven by trees off ROW (87%).</i>				3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees	Complete	Jun-18		
			Repair equipment failure during a storm	Complete	Jul-18		
			Repair damage caused by trees during a storm	Complete	Aug-18		
			Repair damage caused by trees	Complete	Nov-18		
			Repair damage caused by trees during a storm	Complete	Nov-18		
16	Birmingham	00168-22	<i>Performance was driven by vehicle accident (66%) and trees off ROW (17%).</i>				2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Restored fuse operation of unknown cause	Complete	Jul-18		
			Repair damage caused by vehicle accident	Complete	Oct-18		
			Repair damage caused by trees	Complete	Dec-18		
			Repair damage caused by trees during a storm	Complete	Jan-19		
			Repair damage caused by vehicle accident	Complete	Jan-19		
17	Revloc	00069-72	<i>Performance was driven by trees off ROW (67%) and non-company human error (33%).</i>				
			Repair damage caused by non-company human error	Complete	Aug-18		
			Repair damage caused by trees during a storm	Complete	Feb-19		
18	Marienville	00328-51	<i>Performance was driven by trees off ROW (80%).</i>				2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	May-18		
			Porcelain cutout replacement	Complete	May-18		
			Repair damage caused by trees during a storm	Complete	May-18		
			Repair damage caused by trees during a storm	Complete	Aug-18		
			Repair damage caused by trees during a storm	Complete	Nov-18		

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
19	Pennmar	00002-12	<i>Performance was driven by wind (59%) and trees off ROW (24%).</i>			3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by wind	Complete	Jul-18	
			Repair damage caused by trees during a storm	Complete	Sep-18	
			Repair damage caused by trees	Complete	Feb-19	
20	Marienville	00327-51	<i>Performance was driven by tree of ROW (53%) and line failure (40%).</i>			4Q 2018 1Q 2019
			Repair damage caused by trees	Complete	Apr-18	
			Repair equipment failure during a storm	Complete	May-18	
			Repair line failure	Complete	Dec-18	
			Install new radio controlled recloser	To be Completed 2019	50%	
21	Brookville	00125-23	<i>Performance was driven by trees off ROW (60%) and equipment failure (19%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by vehicle accident	Complete	Apr-18	
			Repair damage caused by trees during a storm	Complete	Sep-18	
			Replace cap & pin insulators	Complete	Sep-18	
			Circuit inspection	Complete	Oct-18	
			Repair damage caused by trees during a storm	Complete	Jan-19	
			Repair equipment failure during a storm	Complete	Feb-19	
			On cycle tree trimming	To Be Completed 2019	0%	
22	McVeytown	00112-81	<i>Performance was driven by trees (38%), line failure (29%), and equipment failure (16%).</i>			4Q 2018 1Q 2019
			Repair damage caused by a tree during a storm	Complete	Sep-18	
			Repair equipment failure	Complete	Nov-18	
			Repair line failure	Complete	Dec-18	
23	Mansfield	00558-63	<i>Performance was driven by line failure (61%) and trees off ROW (27%).</i>			2Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	May-18	
			Repair line failure	Complete	Nov-18	
			Targeted circuit rehabilitation	To be Completed 2019	50%	
24	Kearsarge	00528-31	<i>Performance was driven by equipment failure (48%) and line failure (44%).</i>			3Q 2018 4Q 2018 1Q 2019
			Repair line failure	Complete	Aug-18	
			Repair equipment failure	Complete	Feb-19	

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	
25	Union City	00206-43	<i>Performance was driven by equipment failure (47%) and trees off ROW (28%).</i>				2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair equipment failure	Complete	May-18		
			Replace substation breaker	Complete	Jul-18		
			Repair equipment failure	Complete	Sep-18		
			Repair damage caused by trees during a storm	Complete	Jan-19		
			Repair damage caused by wind	Complete	Jan-19		
			Install advanced distribution protective devices	Complete	Feb-19		
			Install new radio controlled switch	To be Completed 2019	50%		
			Targeted circuit rehabilitation	To be Completed 2019	50%		
26	Thompson	00436-65	<i>Performance was driven by trees off ROW (62%) and line failure (24%).</i>				2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	Aug-18		
			Repair damage caused by trees	Complete	Oct-18		
			Repair line failure	Complete	Mar-19		
			Targeted circuit rehabilitation	To be Completed 2019	0%		
27	Hilltop	00048-11	<i>Performance was driven by line failure (70%) and structure fire (27%).</i>				
			Repair line failure	Complete	Jan-19		
			Forced outage due to structure fire	Complete	Jan-19		
28	Logan	00700-81	<i>Performance was driven by trees off ROW (65%) and vehicle accident (15%).</i>				2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Porcelain cutout replacement	Complete	Apr-18		
			Repair damage caused by trees	Complete	Jun-18		
			Repair damage caused by trees	Complete	Sep-18		
			Repair damage caused by a vehicle	Complete	Oct-18		
			Repair damage caused by a vehicle	Complete	Nov-18		
			Repair damage caused by trees	Complete	Mar-19		
29	McConnellstown	00099-82	<i>Performance was driven by breaker operation of primary contact (79%) and lightning (11%).</i>				
			Repair damage caused by lightning	Complete	Aug-18		
			Restore breaker operation of primary contact	Complete	Jan-19		
30	Springboro	00217-52	<i>Performance was driven by trees off ROW (94%).</i>				3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees	Complete	Jun-18		
			Repair damage caused by trees during a storm	Complete	Jul-18		

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	Millfair Road	00283-34	<i>Performance was driven by trees off ROW (78%) and line failure (14%).</i>			
			Repair line failure	Complete	Oct-18	
			Repair damage caused by trees during a storm	Complete	Jan-19	
32	Glory	00105-13	<i>Performance was driven by trees off ROW (85%).</i>			3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees	Complete	Jul-18	
			Repair damage caused by trees during a storm	Complete	Jul-18	
			Repair damage caused by trees	Complete	Aug-18	
33	Russell Hill	00282-65	<i>Performance was driven by trees off ROW (72%) and fuse operation of unknown cause (12%).</i>			
			Restore fuse operation of unknown cause	Complete	Aug-18	
			Repair damage caused by trees during a storm	Complete	Jan-19	
			Repair damage caused by trees	Complete	Jan-19	
34	Seward	00075-11	<i>Performance was driven by equipment failure (51%) and trees off ROW (37%).</i>			2Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	Apr-18	
			Repair equipment failure	Complete	Nov-18	
35	Philipsburg	00162-22	<i>Performance was driven by equipment failure (50%), vehicle accident (23%), and trees off ROW (12%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair equipment failure	Complete	May-18	
			Targeted circuit rehab	Complete	May-18	
			Repair damage caused by a vehicle	Complete	Aug-18	
			Install advanced distribution protective devices	Complete	Dec-18	
			Repair equipment failure	Complete	Jan-19	
			Targeted circuit rehabilitation	To be Completed 2019	75%	
Split large circuits	To be Completed 2019	75%				

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
36	Grandview	00354-51	<i>Performance was driven by trees off ROW (95%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	May-18	
			Repair damage caused by trees during a storm	Complete	Jun-18	
			On cycle tree trimming	Complete	Oct-18	
			Repair damage caused by trees during a storm	Complete	Oct-18	
			Repair damage caused by trees during a storm	Complete	Feb-19	
			Replace substation recloser	To be Completed 2019	0%	
37	Northeast	00591-31	<i>Performance was driven by line failure (73%) and equipment failure (16%).</i>			3Q 2018 4Q 2018 1Q 2019
			Repair line failure	Complete	Jul-18	
			Repair equipment failure	Complete	Sep-18	
			Repair line failure	Complete	Oct-18	
38	Shawville	00151-21	<i>Performance was driven by vehicle accident (46%), equipment failure (29%), and breaker operation of unknown cause (17%).</i>			4Q 2018 1Q 2019
			Repair equipment failure	Complete	Jun-18	
			Repair equipment failure	Complete	Jun-18	
			Repair damage caused by a vehicle	Complete	Nov-18	
39	Tunkhannock	00533-65	<i>Performance was driven by trees off ROW (73%) and equipment failure (16%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	May-18	
			Repair damage caused by trees during a storm	Complete	Jul-18	
			Repair equipment failure	Complete	Jul-18	
			Repair damage caused by trees	Complete	Feb-19	
40	Shade Gap 115kV	0622-82	<i>Performance was driven by equipment failure (41%), trees off ROW (28%), and ice (22%).</i>			3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees	Complete	Aug-18	
			Repair equipment failure	Complete	Sep-18	
			Repair damage caused by ice	Complete	Nov-18	

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
41	Milroy	00128-81	<i>Performance was driven by breaker operation of unknown cause (64%) and trees off ROW (24%).</i>			3Q 2018 4Q 2018 1Q 2019
			Restore breaker operation of unknown cause	Complete	Aug-18	
			Restore breaker operation of unknown cause	Complete	Sep-18	
			Repair damage caused by trees	Complete	Oct-18	
			Repair damage caused by trees	Complete	Feb-19	
42	Mansfield	00699-63	<i>Performance was driven by trees off ROW (61%) and line failure (34%).</i>			2Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	May-18	
			Circuit inspection	Complete	Oct-18	
			Repair line failure	Complete	Nov-18	
			Repair damage caused by trees during a storm	Complete	Mar-19	
43	Fairview East	00242-34	<i>Performance was driven by line failure (40%), equipment failure (30%), and vehicle accident (21%).</i>			4Q 2018 1Q 2019
			Repair damage caused by vehicle accident	Complete	Jun-18	
			Repair damage caused by vehicle accident	Complete	Jun-18	
			Repair line failure	Complete	Oct-18	
			On cycle tree trimming	Complete	Nov-18	
			Repair equipment failure	Complete	Jan-19	
			Repair damage caused by trees	Complete	Feb-19	
44	Laurel Pipeline	00036-71	<i>Performance was driven by line failure (85%)</i>			4Q 2018 1Q 2019
			Repair line failure	Complete	Oct-18	
45	N Meshoppen Tran	00530-65	<i>Performance was driven by equipment failure (57%) and trees off ROW (36%).</i>			4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	May-18	
			Repair equipment failure	Complete	Nov-18	
46	Emlenton	00322-51	<i>Performance was driven by trees off ROW (50%), animal contact (24%), and equipment failure (14%).</i>			4Q 2018 1Q 2019
			Repair damage caused animal contact	Complete	Jun-18	
			Repair damage caused by trees during a storm	Complete	Nov-18	
			Repair equipment failure	Complete	Jan-19	
			Replace substation recloser	To Be Completed 2019	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
47	Springboro	00237-52	<i>Performance was driven by trees off ROW (65%) and vehicle accident (14%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by a vehicle	Complete	Apr-18	
			Repair damage caused by trees	Complete	Apr-18	
			Repair damage caused by trees during a storm	Complete	Feb-19	
			Targeted circuit rehabilitation	To be Completed 2019	0%	
48	Lawrenceville	00632-63	<i>Performance was driven by non company human error (51%) and vehicle accident (35%).</i>			2Q 2018 4Q 2018 1Q 2019
			Repair damage caused by a vehicle	Complete	Aug-18	
			Repair damage caused by non-company human error	Complete	Oct-18	
			Replace substation recloser	Complete	Feb-19	
49	Page Road	00445-43	<i>Performance was driven by line failure (59%), equipment failure (14%), and trees off ROW (9%).</i>			3Q 2018 4Q 2018 1Q 2019
			Repair equipment failure	Complete	Jun-18	
			Repair line failure	Complete	Jul-18	
			Repair line failure	Complete	Sep-18	
			Repair damage caused by trees during a storm	Complete	Sep-18	
50	East Pike	00094-13	<i>Performance was driven by circuit breaker operation of an unknown cause (56%) and vehicle accident (34%).</i>			2Q 2018 1Q 2019
			Restore circuit breaker operation of an unknown cause	Complete	Apr-18	
			Restore circuit breaker operation of an unknown cause	Complete	Jun-18	
			Circuit inspection	Complete	Jul-18	
			Repair damage caused by a vehicle	Complete	Jan-19	
51	Industrial Park	00796-65	<i>Performance was driven by vehicle accident (40%), trees off ROW (36%), and line failure (16%).</i>			4Q 2018 1Q 2019
			Repair line failure	Complete	May-18	
			Repair damage caused by trees during a storm	Complete	Sep-18	
			Repair damage caused by a vehicle	Complete	Oct-18	
			Circuit inspection	To be Completed 2019	0%	
			On cycle tree trimming	To be Completed 2019	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
52	Meshoppen	00283-65	<i>Performance was driven by line failure (37%), trees off ROW (15%), lightning (13%), breaker of an unknown cause (12%) and equipment failure (12%).</i>			
			Repair damage caused by trees during a storm	Complete	Aug-18	
			Repair damage caused by lightning	Complete	Aug-18	
			On cycle tree trimming	Complete	Oct-18	
			Restored breaker operation of unknown cause	Complete	Oct-18	
			Repair equipment failure	Complete	Dec-18	
			Repair line failure	Complete	Mar-19	
53	French Road	00550-31	<i>Performance was driven by line failure (25%), wind (24%), equipment failure (23%), and breaker of unknown cause (11%).</i>			
			Repair line failure	Complete	Aug-18	
			Repair damage caused by wind	Complete	Jan-19	
			Restored breaker operation of unknown cause	Complete	Nov-18	
			Repair equipment failure	Complete	Feb-19	
54	Powell Ave	00237-31	<i>Performance was driven by vehicle accident (56%) and equipment failure (30%).</i>			
			Repair equipment failure	Complete	May-18	
55	Logan	00701-81	<i>Performance was driven by equipment failure (44%), lightning (33%), and trees off ROW (8%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair equipment failure	Complete	May-18	
			Repair damage caused by trees during a storm	Complete	May-18	
			Repair damage caused by lightning	Complete	Sep-18	
			Repair equipment failure	Complete	Nov-18	
56	Timblin	00115-23	<i>Performance was driven by trees off ROW (40%) and lightning (38%).</i>			4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	Jul-18	
			Repair damage caused by lightning	Complete	Oct-18	
			Restore breaker operation of unknown cause	Complete	Jun-19	
			Repair damage caused by trees during a storm	Complete	Feb-19	
			On cycle tree trimming	To Be Completed 2019	0%	
57	Mildred	00771-62	<i>Performance was driven by equipment failure (97%).</i>			3Q 2018 4Q 2018 1Q 2019
			Repair equipment failure	Complete	Jul-18	
			Repair equipment failure	Complete	Jul-18	

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
58	Clymer	00110-13	<i>Performance was driven by equipment failure (84%).</i>			4Q 2018 1Q 2019
			Repair equipment failure	Complete	Apr-18	
			Repair equipment failure	Complete	Oct-18	
			Repair damage caused by trees	Complete	Feb-19	
59	East Hickory	00201-41	<i>Performance was driven by trees off ROW (93%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees	Complete	May-18	
			Repair damage caused by trees during a storm	Complete	Jul-18	
			Repair damage caused by trees	Complete	Sep-18	
			Repair damage caused by trees	Complete	Dec-18	
			Replace substation recloser	Complete	Feb-19	
On cycle tree trimming	To Be Completed 2019	0%				
60	N Meshoppen Tran	00534-65	<i>Performance was driven by trees off ROW (73%) and breaker operation of unknown cause (8%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	May-18	
			Circuit inspection	Complete	Jul-18	
			Repair damage caused by trees	Complete	Jul-18	
			Repair damage caused by trees during a storm	Complete	Nov-18	
			Restored breaker operation of unknown cause	Complete	Apr-18	
61	Brookville West	00121-23	<i>Performance was driven by equipment failure (42%), trees off ROW (34%), and vehicle accident (21%).</i>			2Q 2018 3Q 2018 1Q 2019
			On cycle tree clearing	Complete	Apr-18	
			Repair equipment failure	Complete	Jun-18	
			Repair damage caused by a vehicle	Complete	Sep-18	
			Repair equipment failure	Complete	Nov-18	
			Repair damage caused by trees during a storm	Complete	Feb-19	
62	Reed Steet	00549-31	<i>Performance was driven by breaker operation of unknown cause (91%).</i>			3Q 2018 4Q 2018 1Q 2019
			Restore breaker operation of unknown cause	Complete	Jun-18	
			Restore breaker operation of unknown cause	Complete	Jul-18	

Penelec					
Unranked circuits appearing 2 or more quarters in the last 4 quarters					
Substation	Circuit	2Q 2018	3Q 2018	4Q 2018	1Q 2019
Brooklyn	00749-65	X	X		
Cooper	00069-11		X	X	
East Towanda	00525-62	X	X		
French Road	00219-31	X	X		
Green Garden	00536-31	X	X		
Hooversville	00018-12	X	X		
Hooversville	00019-12	X	X		
Lake Como	00787-65	X	X	X	
Lake Como	00788-65	X	X		
Madera	00167-22	X	X	X	
Philipsburg	00161-22		X	X	
Pittsburgh Avenue	00524-31	X	X		
Powell Ave	00513-31		X	X	
Union City	00207-43	X	X	X	
Utica Junction	00318-51	X	X		
Walnut Street	00520-31	X	X		
Wyalusing	00532-62	X	X		
Youngsville	00256-41	X	X		

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

<b>Penelec</b>				
<b>Substation</b>	<b>Circuit</b>	<b>Remedial Action Planned or Taken</b>	<b>Status of Remedial Work Completed</b>	<b>Progress of Remedial Work or Date Completed</b>
Cooper	00069-11	Install new radio controlled switch	Complete	Feb-19
		On cycle tree trimming	To be Completed 2019	0%
Somerset	00201-41	Install advanced Dx protective devices	To be Completed 2019	95%
North Warren	00207-41	Targeted circuit rehabilitation	Complete	Feb-19

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	Jamestown	W-162	<i>Performance was driven by tress off ROW (75%), line failure (10%) and bird (9%).</i>			2Q 2018 3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by trees during a storm	Complete	Jun-18	
			Replace switch and repair line failure	Complete	Jun-18	
			Pole was replaced and equipment repaired following tree damage	Complete	Sep-18	
			<i>Pole was replaced and equipment repaired following tree damage</i>	Complete	Oct-18	
			Pole was replaced and equipment repaired following tree damage	Complete	Feb-19	
2	Perry	W-156	<i>Performance was driven by equipment failure (51%), bird (18%) and trees off ROW (17%).</i>			2Q 2018 1Q 2019
			Repair damage caused by animal contact	Complete	Apr-18	
			Repair damage caused by animal contact	Complete	May-18	
			Repair damage caused by animal contact	Complete	Jun-18	
			Repair damage caused by trees during a storm	Complete	Jun-18	
			Patrol entire circuit for Off ROW hazard trees	Complete	Nov-18	
			Replace switch	Complete	Feb-19	
3	Seneca	W701	<i>Performance was driven by unknown (48%), trees off ROW (26%) and animal (17%).</i>			3Q 2018 4Q 2018 1Q 2019
			Replace fuse after operation caused by animal contact	Complete	Jun-18	
			Restore breaker operation of unknown cause during storm	Complete	Jun-18	
			Restore recloser operation of unknown cause	Complete	Jul-18	
			Repair damage cause by tree	Complete	Sep-18	
			Repair damage caused by tree limb	Complete	Jan-19	
4	Koppel	D-531	<i>Performance was driven by trees off ROW (75%), line failure (10%) and vehicle (9%).</i>			2Q 2018 4Q 2018 1Q 2019
			Repair line failure	Complete	Sep-18	
			Pole was replaced and equipment repaired following tree damage	Complete	Nov-18	
			Pole was replaced and equipment repaired following tree damage	Complete	Jan-19	
5	Ellwood Sw Str	D590	<i>Performance was driven by trees off ROW (47%), vehicle (35%) and line failure (11%).</i>			3Q 2018 1Q 2019
			Repair damage caused by tree	Complete	Sep-18	
			Pole was replaced and equipment repaired following damage by vehicle	Complete	Dec-18	

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

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
6	Thompson Run	D550	<i>Performance was driven by trees off ROW (84%) and vehicle (13%).</i>			3Q 2018 4Q 2018 1Q 2019
			Repair damage caused by tree	Complete	Mar-18	
			Repair damage caused by tree	Complete	Jul-18	
			Repair damage caused by tree	Complete	Oct-18	
			Repair damage caused by a vehicle	Complete	Dec-18	
7	Seneca	W700	<i>Performance was driven by trees off ROW (69%) and line failure (18%).</i>			1Q 2019
			Repair damage caused by tree	Complete	Sep-18	
			Repair line failure	Complete	Feb-19	
			Repair damage caused by tree	Complete	Mar-19	
8	Canal	W-102	<i>Performance was driven by trees off ROW (53%), equipment failure (25%) and forced outage (10%).</i>			1Q 2019
			Replace cutout and repair line failure	Complete	Apr-18	
			Pole was replaced and equipment repaired during forced outage	Complete	Jun-18	
			Pole was replaced and equipment repaired following damage by tree	Complete	Jul-18	
9	Jackson	W732	<i>Performance was driven by trees off ROW (87%) and animal (5%).</i>			1Q 2019
			Pole was replaced and equipment repaired following damage by tree	Complete	Jun-18	

<b>Penn Power</b>					
<b>Unranked circuits appearing 2 or more quarters in the last 4 quarters</b>					
<b>Substation</b>	<b>Circuit</b>	<b>2Q 2018</b>	<b>3Q 2018</b>	<b>4Q 2018</b>	<b>1Q 2019</b>
Adams Ridge	W-780		X	X	
Canal	W-101	X	X	X	
Hickory	W-243	X	X	X	
Ingomar	D-620		X	X	
McDowell	W-121	X	X		

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

West Penn Power							
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	Flintstone	Chaneysville	<i>Performance driven by off ROW trees (92%).</i>				2Q2018 3Q2018 4Q2018 1Q2019
			Repair line failure	Complete	Apr-18		
			Repair damage caused by a tree during a storm	Complete	Apr-18		
			Repair damage caused by a tree	Complete	Jun-18		
			Repair damage caused by a tree during a storm	Complete	Jun-18		
			Repair damage caused by a tree	Complete	Aug-18		
			Repair damage caused by a tree during a storm	Complete	Sep-18		
			Zone 2 Infrared Inspection	Complete	Sep-18		
			Repair equipment failure	Complete	Dec-18		
			Repair damage caused by a tree during a storm	Complete	Jan-19		
Repair damage caused by a tree during a storm	Complete	Feb-19					
2	Shaffers Corner	Seventh St Rd	<i>Performance driven by off ROW trees (80%) and on ROW trees (16%).</i>				2Q2018 3Q2018 4Q2018 1Q2019
			Repair damage caused by a tree	Complete	Apr-18		
			Repair damage caused by a tree during a storm	Complete	Apr-18		
			Repair damage caused by a tree during a storm	Complete	Apr-18		
			Repair damage caused by a tree during a storm	Complete	Jul-18		
			Repair damage caused by a tree during a storm	Complete	Sep-18		
			Overhead circuit inspection	Complete	Oct-18		
			Restore unknown outage	Complete	Oct-18		
			Repair damage caused by a tree during a storm	Complete	Nov-18		
Repair equipment failure during a storm	Complete	Mar-19					

West Penn Power						
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
3	Emporium	Emporium Jct	<i>Performance driven by off ROW trees (73%) and wind (25%).</i>			2Q2018 3Q2018 4Q2018 1Q2019
			Repair equipment failure during a storm	Complete	Jul-18	
			Repair damage caused by a tree	Complete	Sep-18	
			Restore unknown outage	Complete	Sep-18	
			Repair damage caused by a tree during a storm	Complete	Oct-18	
			Repair damage caused by a tree	Complete	Mar-19	
4	Rutan	Bristoria	<i>Performance driven by off ROW trees (58%) and equipment failure (12%).</i>			2Q2018 3Q2018 4Q2018 1Q2019
			Repair damage caused by a tree during a storm	Complete	Apr-18	
			Repair damage caused by a tree during a storm	Complete	Apr-18	
			Repair equipment failure during a storm	Complete	Jul-18	
			Repair damage caused by a tree during a storm	Complete	Aug-18	
			Repair equipment failure	Complete	Oct-18	
			Repair damage caused by a tree during a storm	Complete	Oct-18	
			Repair equipment failure during a storm	Complete	Feb-19	
			Repair line failure during a storm	Complete	Feb-19	
			Overhead circuit inspection	To be Completed 2019	90%	
5	Driftwood	Driftwood	<i>Performance driven by wind (74%) and off ROW trees (15%).</i>			3Q2018 4Q2018 1Q2019
			Repair equipment failure	Complete	Aug-18	
			Repair damage caused by a tree	Complete	Aug-18	
			Zone 2 Infrared Inspection	Complete	Oct-18	
			Repair damage caused by a tree	Complete	Nov-18	
			Repair line failure	Complete	Jan-19	
Repair damage caused by a tree	Complete	Mar-19				

West Penn Power						
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
6	Bedford Road	Rt 220 North	<i>Performance driven by off ROW trees (72%) and vehicle (17%).</i>			3Q2018 4Q2018 1Q2019
			Forced outage to repair damage	Complete	Aug-18	
			Repair damage caused by a tree	Complete	Aug-18	
			Restore outage caused by human error-noncompany	Complete	Sep-18	
			Repair damage caused by a vehicle	Complete	Nov-18	
			On cycle tree trimming	Complete	Jan-19	
			Repair damage caused by a tree during a storm	Complete	Jan-19	
7	St. Clair	Lesnett	<i>Performance driven by line failure (68%) and off ROW trees (22%).</i>			3Q2018 4Q2018 1Q2019
			Repair line failure	Complete	Jul-18	
			Repair line failure during a storm	Complete	Aug-18	
			Repair damage caused by a tree during a storm	Complete	Aug-18	
			Zone 2 Infrared Inspection	Complete	Aug-18	
			Repair damage caused by an animal	Complete	Oct-18	
			Repair damage caused by a tree during a storm	Complete	Jan-19	
8	Smith	Francis Mine	<i>Performance driven by off ROW trees (79%) and unknown (16%).</i>			2Q2018 3Q2018 4Q2018 1Q2019
			Repair damage caused by a tree	Complete	May-18	
			Repair damage caused by a tree during a storm	Complete	Jul-18	
			Restore unknown outage during a storm	Complete	Aug-18	
			Reliability job to install fuses	Complete	Aug-18	
			Repair damage caused by a tree	Complete	Sep-18	
			Repair damage caused by a tree during a storm	Complete	Dec-18	
Repair damage caused by a tree	Complete	Mar-19				

West Penn Power							
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	
9	Waterville	Waterville	<i>Performance driven by off ROW trees (53%) and other electric utility (25%).</i>				2Q2018 3Q2018 4Q2018 1Q2019
			Restore outage caused by other electric utility	Complete	Apr-18		
			Repair damage caused by a tree during a storm	Complete	Apr-18		
			Zone 2 fuse installation	Complete	May-18		
			Repair damage caused by a tree during a storm	Complete	Aug-18		
			Repair damage caused by a tree	Complete	Aug-18		
			Restore outage caused by other electric utility	Complete	Dec-18		
10	Kersey	Shelvey	<i>Performance driven by wind (81%) and on ROW trees (14%).</i>				2Q2018 3Q2018 4Q2018 1Q2019
			Repair damage caused by a tree during a storm	Complete	May-18		
			Repair damage caused by wind during a storm	Complete	May-18		
			Repair damage caused by a tree during a storm	Complete	Jun-18		
			Repair damage caused by a tree	Complete	Jul-18		
			Restore unknown outage	Complete	Nov-18		
			Repair damage caused by a tree during a storm	Complete	Mar-19		
On cycle tree trimming	To be Completed 2019	36%					
11	Dutch Fork	Claysville	<i>Performance driven by off ROW trees (59%), unknown (13%), and forced outage (10%).</i>				2Q2018 3Q2018 4Q2018 1Q2019
			Forced outage to repair damage during a storm	Complete	May-18		
			Repair damage caused by a tree during a storm	Complete	May-18		
			Restore unknown outage during a storm	Complete	Jun-18		
			Restore unknown outage	Complete	Aug-18		
			Repair damage caused by a tree during a storm	Complete	Sep-18		
			Enhanced WPC remediation	Complete	Nov-18		
Repair damage caused by a tree	Complete	Dec-18					
Forced outage to repair damage	Complete	Jan-19					

West Penn Power						
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	Thompson Farm	Toftrees	<i>Performance driven by line failure (66%) and equipment failure (26%).</i>			3Q2018 4Q2018 1Q2019
			Repair equipment failure during a storm	Complete	Jul-18	
			Repair line failure	Complete	Aug-18	
			Repair line failure	Complete	Oct-18	
			Repair line failure during a storm	Complete	Nov-18	
13	Franklin	Rogersville	<i>Performance driven by off ROW trees (88%).</i>			2Q2018 1Q2019
			Restore unknown outage during a storm	Complete	Apr-18	
			Repair damage caused by a tree	Complete	May-18	
			Zone 1 Infrared Inspection	Complete	Sep-18	
			Repair damage caused by a tree during a storm	Complete	Jan-19	
		Repair damage caused by a tree during a storm	Complete	Jan-19		
14	Emporium	West Creek	<i>Performance driven by wind (73%) and off ROW trees (19%).</i>			3Q2018 4Q2018 1Q2019
			Repair equipment failure during a storm	Complete	Jul-18	
			Repair damage caused by a tree	Complete	Sep-18	
			Restore unknown outage	Complete	Sep-18	
			Repair equipment failure	Complete	Oct-18	
		Repair line failure during a storm	Complete	Feb-19		

West Penn Power							
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	Kane	Russell City	<i>Performance driven by off ROW trees (75%) and line failure (22%).</i>				2Q2018 3Q2018 4Q2018 1Q2019
			Repair damage caused by a tree during a storm	Complete	Apr-18		
			Repair damage caused by a tree during a storm	Complete	May-18		
			Repair line failure during a storm	Complete	Jul-18		
			Repair damage caused by a tree	Complete	Sep-18		
			Forced outage to repair damage during a storm	Complete	Oct-18		
			Underground Substation Exit Replacement	Complete	Oct-18		
			Repair damage caused by a tree	Complete	Dec-18		
			Repair line failure	Complete	Jan-19		
			Repair damage caused by a tree during a storm	Complete	Jan-19		
16	Peters	Library	<i>Performance driven by lightning (54%) and vehicle (39%).</i>				3Q2018 4Q2018 1Q2019
			Repair equipment failure during a storm	Complete	Aug-18		
			Repair damage caused by lightning during a storm	Complete	Sep-18		
			Restore unknown outage	Complete	Nov-18		
			Repair damage caused by a tree	Complete	Mar-19		
Overhead circuit inspection	To be Completed 2019	99%					
17	Piney Fork	Gillhall	<i>Performance driven by off ROW trees (74%) and line failure (17%).</i>				2Q2018 4Q2018 1Q2019
			Forced outage to repair damage during a storm	Complete	Apr-18		
			Repair line failure during a storm	Complete	Apr-18		
			Repair damage caused by a tree during a storm	Complete	Oct-18		
			Line Rehabilitation	Complete	Dec-18		
			Repair equipment failure during a storm	Complete	Jan-19		
Repair line failure	Complete	Mar-19					

West Penn Power						
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
18	Ridgway	Montmorenci	<i>Performance driven by off ROW trees (84%) and equipment failure (9%).</i>			3Q2018 4Q2018 1Q2019
			Repair damage caused by a tree during a storm	Complete	Sep-18	
			Zone 2 Infrared Inspection	Complete	Sep-18	
			Repair equipment failure during a storm	Complete	Nov-18	
			Repair line failure	Complete	Jan-19	
19	Avella	W Middletown	<i>Performance driven by off ROW tree (55%) and line failure (31%).</i>			2Q2018 4Q2018 1Q2019
			Repair damage caused by a tree during a storm	Complete	Apr-18	
			Repair line failure during a storm	Complete	Jun-18	
			Repair line failure during a storm	Complete	Jun-18	
			Line rehabilitation	Complete	Aug-18	
			Repair line failure	Complete	Oct-18	
			Repair damage caused by a tree during a storm	Complete	Dec-18	
			Repair damage caused by a tree during a storm	Complete	Jan-19	
Repair damage caused by a tree	Complete	Feb-19				
20	Peters	McMurray	<i>Performance driven by off ROW trees (94%).</i>			3Q2018 4Q2018 1Q2019
			Repair damage caused by a tree during a storm	Complete	Jul-18	
			Restore unknown outage	Complete	Aug-18	
			Repair line failure	Complete	Aug-18	
			Repair line failure	Complete	Oct-18	
			Overhead circuit inspection	Complete	Nov-18	
			Repair damage caused by a tree during a storm	Complete	Feb-19	

West Penn Power						
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
21	Smith	Florence	<i>Performance driven by off ROW trees (39%) and line failure (31%).</i>			2Q2018 3Q2018 4Q2018 1Q2019
			Repair damage caused by a tree during a storm	Complete	Apr-18	
			Repair damage caused by a tree during a storm	Complete	Apr-18	
			Forced outage to repair damage	Complete	Jun-18	
			Repair line failure	Complete	Jul-18	
			Repair equipment failure during a storm	Complete	Sep-18	
			Repair damage caused by a tree during a storm	Complete	Sep-18	
			Restore damage caused by a tree	Complete	Dec-18	
			Repair damage caused by a tree during a storm	Complete	Jan-19	
Enhanced WPC remediation	To be Completed 2019	0%				
22	Bethlen	Darlington	<i>Performance driven by off ROW trees (80%) and on ROW trees (9%).</i>			2Q2018 3Q2018 4Q2018 1Q2019
			Repair damage caused by tree during a storm	Complete	Apr-18	
			Repair damage caused by a tree	Complete	Aug-18	
			Repair damage caused by a tree during a storm	Complete	Aug-18	
			Forced outage to repair damage	Complete	Sep-18	
			Overhead circuit inspection	Complete	Oct-18	
			Repair line failure	Complete	Nov-18	
			Repair damage caused by a tree	Complete	Nov-18	
			Repair damage caused by a tree	Complete	Jan-19	

West Penn Power							
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	St. Clair	Valley	<i>Performance driven by vehicle (34%), equipment failure (22%), and off ROW trees (15%).</i>				3Q2018 4Q2018 1Q2019
			Restore outage due to an overload	Complete	Jul-18		
			Zone 2 Infrared Inspection	Complete	Aug-18		
			Repair equipment failure	Complete	Sep-18		
			Repair line failure	Complete	Oct-18		
			Repair damage caused by a tree during a storm	Complete	Nov-18		
			Repair equipment failure	Complete	Mar-19		
24	Smith	Burgettstown	<i>Performance driven by line failure (33%), off ROW trees (27%), equipment failure (19%).</i>				4Q2018 1Q2019
			Repair equipment failure	Complete	Oct-18		
			Repair line failure during a storm	Complete	Nov-18		
			Repair damage caused by a tree during a storm	Complete	Nov-18		
			On cycle tree trimming	Complete	Nov-18		
			Repair equipment failure	Complete	Jan-19		
25	Mateer	Dime Rd	<i>Performance driven by on ROW trees (37%), off ROW trees (35%), and unknown (14%).</i>				2Q2018 1Q2019
			Repair equipment Failure	Complete	May-18		
			Repair damage caused by a tree during a storm	Complete	Jun-18		
			Repair equipment failure	Complete	Jan-19		
			Repair damage caused by a tree during a storm	Complete	Feb-19		
26	Youndwood	Spare	<i>Performance driven by off ROW trees (43%) and line failure (37%).</i>				4Q2018 1Q2019
			Repair damage caused by lightning	Complete	Oct-18		
			Repair damage caused by a tree during a storm	Complete	Oct-18		
			Repair line failure during a storm	Complete	Nov-18		

West Penn Power						
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	Amity	Amity	<i>Performance driven by off ROW trees (51%) and line failure (34%).</i>			3Q2018 1Q2019
			Repair damage caused by a tree during a storm	Complete	Aug-18	
			Repair line failure	Complete	Sep-18	
			Repair damage caused by a tree during a storm	Complete	Jan-19	
			Forced outage to repair damage during a storm	Complete	Mar-19	
28	Sewickley	Wendel	<i>Performane driven by off ROW trees (66%) and equipment failure (19%).</i>			3Q2018 4Q2018 1Q2019
			Zone 1 Infrared Inspection	Complete	Jul-18	
			Forced outage to repair damage	Complete	Aug-18	
			Repair equipment failure	Complete	Sep-18	
			Repair damage caused by a tree during a storm	Complete	Sep-18	
			Repair damage caused by a tree	Complete	Nov-18	
			Repair damage caused by a tree during a storm	Complete	Feb-19	
29	Rutan	Windridge	<i>Performance driven by off ROW trees (76%) and human error company (12%).</i>			3Q2018 4Q2018 1Q2019
			Forced outage to repair damage during a storm	Complete	Jul-18	
			Repair damage caused by a tree	Complete	Sep-18	
			Repair damage caused by a tree during a storm	Complete	Sep-18	
			Repair equipment failure	Complete	Oct-18	
			Repair damage caused by a tree during a storm	Complete	Nov-18	
			Repair damage caused by a tree during a storm	Complete	Mar-19	

West Penn Power						
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	Karns City	Kaylor	<i>Performance driven by vehicle (43%) and off ROW trees (28%).</i>			2Q2018 3Q2018 4Q2018 1Q2019
			Repair damage caused by a tree during a storm	Complete	Apr-18	
			Repair damage caused by a tree during a storm	Complete	Apr-18	
			Repair damage caused by a vehicle during a storm	Complete	May-18	
			Repair damage caused by a tree during a storm	Complete	Aug-18	
			Overhead circuit inspection	Complete	Oct-18	
			Repair line failure during a storm	Complete	Oct-18	
			Repair damage caused by a vehicle	Complete	Nov-18	
			Repair damage caused by a tree	Complete	Feb-19	
31	Krendale	Unionville	<i>Performance driven by off ROW trees (60%) and equipment failure (29%).</i>			4Q2018 1Q2019
			Repair equipment failure	Complete	Nov-18	
			Forced outage to repair damage during a storm	Complete	Nov-18	
			Repair damage caused by a tree	Complete	Dec-18	
			Repair damage caused by a tree during a storm	Complete	Nov-18	
			Repair equipment failure	Complete	Jan-19	
			Overhead circuit inspection	To be Completed 2019	97%	
32	Fort Palmer	West Fairfield	<i>Performance driven by off ROW trees (80%) and unknown (13%).</i>			3Q2018 1Q2019
			Repair damage caused by a tree	Complete	Aug-18	
			Repair damage caused by a tree	Complete	Sep-18	
			Repair damage caused by a tree during a storm	Complete	Feb-19	
			Restore unknown outage	Complete	Mar-19	
33	Weedville	Weedville	<i>Performance driven by off ROW trees (56%) and unknown (21%).</i>			
			Repair equipment failure	Complete	Jan-19	
			Repair damage caused by a tree during a storm	Complete	Jan-19	

West Penn Power						
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	Silverville 138-12	Cole Road	<i>Performance driven by off ROW trees (74%).</i>			2Q2018 4Q2018 1Q2019
			Repair equipment failure	Complete	May-18	
			Repair line failure during a storm	Complete	May-18	
			Repair damage caused by a tree during a storm	Complete	May-18	
			Repair damage caused by a tree during a storm	Complete	May-18	
			Zone 2 Infrared Inspection	Complete	Aug-18	
			Repair equipment failure	Complete	Oct-18	
			Repair damage caused by a tree during a storm	Complete	Nov-18	
			Repair damage caused by a tree during a storm	Complete	Jan-19	
35	Vanceville	Vanceville	<i>Performance driven by off ROW trees (83%).</i>			2Q2018 3Q2018 1Q2019
			Repair damage caused by a tree during a storm	Complete	Apr-18	
			On cycle tree trimming	Complete	Dec-18	
			Repair damage caused by a tree during a storm	Complete	Jul-18	
			Repair damage caused by a tree during a storm	Complete	Jan-19	
			Repair damage caused by a tree during a storm	To be Completed 2019	97%	
36	St. Clair	Skyridge	<i>Performance driven by line failure (67%) and forced outage (18%).</i>			3Q2018 4Q2018 1Q2019
			Repair line failure	Complete	Jul-18	
			Repair damage caused by a tree during a storm	Complete	Aug-18	
			Zone 1 Infrared Inspection	Complete	Aug-18	
			Forced outage to repair damage during a storm	Complete	Sep-18	
			Repair line failure	Complete	Oct-18	
			Repair equipment failure	Complete	Jan-19	
37	Luxor	Rolling Acres	<i>Performance driven by off ROW trees (93%).</i>			
			Forced outage to repair damage	Complete	Jan-19	
			Repair damage caused by a tree during a storm	Complete	Jan-19	
			Repair damage caused by a tree during a storm	Complete	Mar-19	

West Penn Power							
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	
38	Dutch Fork	W Alexander	<i>Performance driven by off ROW trees (76%).</i>				2Q2018 3Q2018 4Q2018 1Q2019
			Repair damage caused by a tree	Complete	Apr-18		
			Restore unknown outage	Complete	May-18		
			Repair damage caused by a tree	Complete	Jun-18		
			Repair damage caused by a tree	Complete	Jul-18		
			Repair line failure during a storm	Complete	Sep-18		
			Repair damage caused by a tree	Complete	Oct-18		
			On cycle tree trimming	Complete	Jan-19		
			Repair equipment failure	Complete	Mar-19		
39	Kiski Valley	Kittanning Rd	<i>Performance driven by off ROW trees (64%) and line failure (24%).</i>				2Q2018 3Q2018 4Q2018 1Q2019
			Repair damage caused by a tree during a storm	Complete	Apr-18		
			Forced outage to repair damage	Complete	Jun-18		
			Zone 1 Infrared Inspection	Complete	Aug-18		
			Repair damage caused by a tree during a storm	Complete	Sep-18		
			Repair line failure	Complete	Dec-18		
			Repair line failure	Complete	Mar-19		
			Repair damage caused by a tree	Complete	Mar-19		
40	White Valley	Export	<i>Performance driven by forced outage (47%), line failure (25%), and off ROW trees (17%).</i>				2Q2018 3Q2018 1Q2019
			Forced outage to repair damage	Complete	Apr-18		
			Repair damage caused by a tree during a storm	Complete	Apr-18		
			Forced outage to repair damage during a storm	Complete	May-18		
			Repair damage caused by a tree during a storm	Complete	Aug-18		
			Forced outage to repair damage during a storm	Complete	Sep-18		
			On cycle tree trimming	Complete	Oct-18		
			Repair line failure during a storm	Complete	Jan-19		

West Penn					
Unranked circuits appearing 2 or more quarters in the last 4 quarters					
Substation	Circuit	2Q 2018	3Q 2018	4Q 2018	1Q 2019
Cooperstown	Twin Willows	X	X		
Franklin	West Waynesburg	X	X	X	
Frazier	Star Junction	X	X		
Harwick	Harmar	X	X		
Houston	McGovern	X		X	
North Union	Gallatin		X	X	
Purcell	Artemas	X		X	
Saltsburg	Salina		X	X	
St. Clair	Fort Couch		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
Purcell	Artemas	On cycle tree trimming	In Progress	45%

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

**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	456	232	235	66
2Q				
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.

<b>Met-Ed – Third Party Line Hit Incidents</b>			
<b>1st Quarter 2019 12-Month Rolling<sup>22</sup></b>			
<b>Cause of Line Hit</b>	<b>Number of Incidents</b>	<b>Invoice Amount (\$)</b>	<b>Recovery Amount (\$)</b>
Dig In - Other	14	9,669	2,859
Excavated in Tolerance	32	195,175	28,494
Excavation Inconsistent with Ticket Scope	16	30,449	18,348
Excavation Prior to Lawful Start Date	1	437	437
Expired Ticket	5	18,412	1,947
Hand Digging	1	427	427
Marked Improperly	12	20,984	18,441
No Ticket	25	47,869	27,806
<b>Total</b>	<b>106</b>	<b>323,422</b>	<b>98,759</b>

<b>Penelec – Third Party Line Hit Incidents</b>			
<b>1st Quarter 2019 12-Month Rolling<sup>23</sup></b>			
<b>Cause of Line Hit</b>	<b>Number of Incidents</b>	<b>Invoice Amount (\$)</b>	<b>Recovery Amount (\$)</b>
Dig In - Other	15	2,433	2,433
Excavated in Tolerance	37	65,069	50,621
Excavation Inconsistent with Ticket Scope	3	0	0
Excavation Prior to Lawful Start Date	3	1,511	0
Expired Ticket	6	1,800	788
Hand Digging	3	0	0
Marked Improperly	35	125,265	117,514
No Ticket	51	100,255	38,124
<b>Total</b>	<b>153</b>	<b>296,333</b>	<b>209,480</b>

<sup>22</sup> Data includes line hits closed during the rolling twelve-month reporting period as well as line hits that are still open as of March 31, 2019.

<sup>23</sup> Data includes line hits closed during the rolling twelve-month reporting period as well as line hits that are still open as of March 31, 2019.

Pean Power – Third Party Line Hit Incidents 1st Quarter 2019 12-Month Rolling <sup>24</sup>			
Cause of Line Hit	Number of Incidents	Invoice Amount (\$)	Recovery Amount (\$)
Dig In - Other	12	10,492	867
Excavated in Tolerance	11	18,949	17,778
Excavation Inconsistent with Ticket Scope	1	2,313	2,448
Excavation Prior to Lawful Start Date	2	6,443	0
Expired Ticket	5	7,452	7,087
Hand Digging	0	0	0
Marked Improperly	3	6,305	4,247
No Ticket	15	15,389	6,552
<b>Total</b>	<b>49</b>	<b>67,343</b>	<b>38,979</b>

West Penn – Third Party Line Hit Incidents 1st Quarter 2019 12-Month Rolling <sup>25</sup>			
Cause of Line Hit	Number of Incidents	Invoice Amount (\$)	Recovery Amount (\$)
Dig In - Other	47	59,813	17,519
Excavated in Tolerance	6	10,013	5,369
Excavation Inconsistent with Ticket Scope	5	2,493	2,449
Excavation Prior to Lawful Start Date	1	3,092	0
Expired Ticket	5	7,693	7,550
Hand Digging	16	27,846	16,049
Marked Improperly	27	113,569	110,442
No Ticket	38	63,992	33,931
<b>Total</b>	<b>145</b>	<b>288,511</b>	<b>193,309</b>

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

<sup>24</sup> Data includes line hits closed during the rolling twelve-month reporting period as well as line hits that are still open as of March 31, 2019.

<sup>25</sup> Data includes line hits closed during the rolling twelve-month reporting period as well as line hits that are still open as of March 31, 2019.

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Joint 1st Quarter 2019 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

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

Tanya McCloskey  
Office of Consumer Advocate  
555 Walnut Street – 5<sup>th</sup> Floor  
Harrisburg, PA 17101-1923

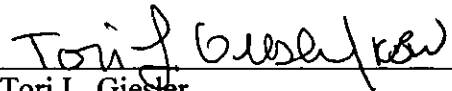
Scott Rubin  
Utility Workers Union of America  
333 Oak Lane  
Bloomsburg, PA 17815-2036

Service by electronic mail, as follows:

David Dulick, General Counsel  
David\_Dulick@ccsenergy.com

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

Dated: July 11, 2019

  
\_\_\_\_\_  
Tori L. Giesler  
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West Penn Power Company

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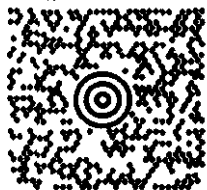
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SHIP TO:

ROSEMARY CHIAVETTA, SECRETARY  
PA PUBLIC UTILITY COMMISSION  
2ND FLOOR  
COMMONWEALTH KEYSTONE BUILDING  
400 NORTH STREET  
HARRISBURG PA 17120-0079

Do



PA 171 9-20



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REF 2:TORI GIESLER-REAP-37

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