

February 1, 2019

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

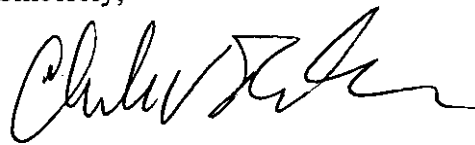
**Re: Implementation Plan for the Focused Management and Operations Audit of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company Docket Nos. D-2017-2626664, D-2017-2626665, D-2017-2626666, D-2017-2626667**

Dear Secretary, Chiavetta:

This filing is made in connection with the Pennsylvania Public Utility Commission's ("PaPUC") October 4, 2018 Secretarial Letter for the Implementation Plan of the Focused Management Audit of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company. Enclosed is the annual Implementation Plan Progress Report.

If you have any questions regarding the enclosed documents, please contact me at (610) 921-6525.

Sincerely,



Charles V. Fullem  
Director of Rates & Regulatory Affairs-PA  
610-921-6525

Enclosures

c: Carl Hisiro, PaPUC Law Bureau  
Paul Metro, PaPUC Electric Safety Division  
Brent Killian, PaPUC Electric Safety Division  
Dan Mumford, PaPUC Bureau of Consumer Services  
Dan Searfoorce, PaPUC Bureau of Technical Utility Services  
Dave Washko, PaPUC Bureau of Technical Utility Services  
George Dorow, PaPUC Bureau of Audits

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# **FirstEnergy**

**Metropolitan Edison Company,  
Pennsylvania Electric Company  
Pennsylvania Power Company  
West Penn Power Company  
("Companies")**

## **IMPLEMENTATION PLAN PROGRESS REPORT**

**for the**

**FOCUSED MANAGEMENT AND  
OPERATIONS AUDITS**

**February 1, 2019**

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**METROPOLITAN EDISON, COMPANY, PENNSYLVANIA ELECTRIC COMPANY,  
PENNSYLVANIA POWER COMPANY & WEST PENN POWER COMPANY  
FOCUSED MANAGEMENT AND OPERATIONS AUDIT**

**IMPLEMENTATION PLAN PROGRESS REPORT**

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**FirstEnergy Pennsylvania Companies  
Management Efficiency Investigation  
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**Follow-up Recommendation III-1**

Review best practices throughout the FE-PA companies to ensure that all targets are met, establish metrics and targets and monitor performance related to shift work (if implemented), and ensure, at a minimum, targets are at a level that meets regulatory requirements.

**Response**

Accepted in part

**Action**

The Companies will evaluate and share any best practices throughout the FE-PA Companies to assist in meeting established targets and goals. However, applying best practices cannot ensure all targets and goals are met, since there are externalities that can affect performance. Also, based on responses to VII-2 and VII-3, shift work requirements will be reviewed periodically, and adjustments implemented as needed based on call-out frequency.

Performance metrics and targets are established and updated each year for the Companies. Some metrics are established to align with leading industry performance and to encourage active leadership and employee participation in related activities. Others are developed to align with regulatory requirements or internal initiatives. Targets are established to drive desired behaviors leading to achieving business objectives. However, there may be instances when the Companies fail to meet established targets, but that is never representative of a lack of emphasis or priority on continuous improvement.

In order to track these metrics and targets, the Companies utilize Executive Leadership Team Reports (“ELTRs”) to review performance on consistent metrics for the Companies and their affiliated distribution utilities operating outside of Pennsylvania. Those performance metrics specifically applicable to Pennsylvania are actively reviewed on a monthly basis during Pennsylvania leadership team meetings.

***Safety Performance***

Safety performance is tracked through metrics which include OSHA incidents, days away/restricted time incident rate and motor vehicle accident rate. Typically, the Pennsylvania Executive Leadership Team will meet and evaluate the prior month’s performance related to safety, identify any potential trends, safety programs, employee engagement initiatives or process improvements and lessons learned to share and minimize safety incidents with peer companies.

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**Follow-up Recommendation III-1**

***Reliability Performance***

In addition, ELTRs also monitor reliability performance by Company through tracking of metrics for System Average Interruption Frequency Index (“SAIFI”), Customer Average Interruption Duration Index (“CAIDI”) and System Average Interruption Duration Index (“SAIDI”). The Companies’ individual reliability reports specifically track year to date (“YTD”) and rolling twelve-month performance for these metrics. Monthly reviews address contributors to actual performance and opportunities identified to improve reliability performance. The Companies each submitted detailed plans intended to facilitate meeting their respective twelve-month and three-year performance standards. To support this effort, the Companies’ reliability ELTRs reflected incremental modifications to set goals for performance during the 2016 through 2018 period consistent with the projected improvement resulting from the execution of those plans. Going forward, the Companies will continue to execute these plans established to drive improvement in reliability performance. Additional details and associated actions on reliability are included in the response to VII-1.

The Companies also evaluate performance specific to the Pennsylvania companies through the Pennsylvania Management Reports (“PMRs”). The PMRs have been instituted to measure performance against various commitments and goals developed through the Pennsylvania Management Audit process. These reports are actively reviewed monthly during the Pennsylvania leadership team meetings. The following PMRs are tracked and reported monthly:

- Worst Performing Circuit (“WPC”) report
- Priority 3 (“P3”) Transmission Backlog Reduction report
- Damage Prevention Tracking report
- New Service Installation report
- Meter Reading Six and Twelve Month No-Read reports
- No-Read by Reason report
- Meters without a Meter Location report
- Residential Customer Disputes report
- YTD Service Level reports
- Callout Acceptance tracking by Union

***Other Reliability***

The WPC report provides a progress summary by Company on completion dates for projects identified in each Company’s WPC Plan. This report continues to be reviewed monthly to ensure each Company is meeting objectives necessary to complete the projects identified.

The P3 Transmission Repairs Backlog Reduction report summarizes, and tracks completed repairs on a monthly basis, against the targeted number of repairs identified to be completed during each year of the Companies’ five-year plan. Additional work identified and completed is included for each given year. Targets are established to match those identified in the Companies’ backlog reduction plan for years 2015 through 2019, and the report targets are modified to accommodate any plan acceleration that may occur.

**FirstEnergy Pennsylvania Companies  
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**Follow-up Recommendation III-1**

***Damage Prevention***

Monthly metrics have been established for Damage Prevention. Dig-in damage prevention provides data tracking and analysis and measures third party underground line hit incidents by root cause. Damage claim reimbursements measures the dollars on claims closed each month, segregated by the amount recovered vs not-recovered, and also dig-ins invoiced in the past month.

The Companies will improve the existing Damage Prevention Program by evaluating the targets for the applicable metrics in the PMR to ensure they are set at levels that are achievable while driving accountability. In addition, the performance associated with these targets will be consistently monitored by the Pennsylvania leadership team through the PMRs.

***Customer Service***

The New Service Installation Report was developed to evaluate performance against a Company-established three-day new service standard for non-construction requests, and a ten-day new service standard for requests that require construction (not including primary line extensions). These metrics target performance levels of 99%<sup>1</sup> for non-construction orders and 90% for construction orders.

Four reports for meter reading performance will be reviewed on a monthly basis as part of the PMR:

- Meter Reading Six and Twelve Month No-Read reports monitor meter reading metrics for the Companies, identifying meters that have not been read in six and twelve months during the smart meters deployment process. As noted in the response to X-2, the target for the metric on meter reading six month no read will be revised in order to meet regulatory requirements.
- A No-Read by Reason report summarizes each Company's performance and causes for any missed reads. This visibility will ensure the Companies continue to focus on behaviors and process improvements that help them reduce all improper estimates through the smart meter deployment period.
- A Meters without a Meter Location report summarizes those meters without a designated meter location for active customers in order to monitor the Companies' progress towards identifying unknown meter locations.

The Residential Customer Disputes Report provides a monthly summary of YTD performance by Company of all residential disputes, indicating the category of the dispute and the number of disputes with a response of more than thirty days. Goals will be revised to target zero disputes taking more than thirty days per Company, per year, as per regulatory

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<sup>1</sup> The metric target performance levels for non-construction orders was changed from 99% to 100% in June 2015.

**FirstEnergy Pennsylvania Companies  
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**Follow-up Recommendation III-1**

requirements.

The Companies' YTD Service Level report tracks year-to-date performance against the average speed of answer standard of 80% of calls to be answered in thirty seconds.

***Operational Efficiency Reports***

Callout Acceptance reporting has been in place for many years within the Companies. Initiatives have been identified to increase callout acceptance for those workers with low acceptance rates of emergency call outs.

The Companies continue to utilize the performance monitoring process described above to track their annual performance objectives, commitments and regulatory requirements.

**February 1, 2019 Progress Report**

***Safety Performance***

The Companies continue to utilize existing safety programs developed through the use of safety culture surveys, including: integration of human performance tools and concepts into day-to-day work process; performing safety incident and near miss investigations to identify the root cause; holding annual safety kickoff meeting as well as safety meetings throughout the year; recognizing and rewarding safe work practices, performance, and records through the President Award; and conducting local Labor/Management Safety Committee meetings.

Additionally, the Companies continue to explore new ways to increase performance in the five focus areas, such as the development of a new Key Performance Indicator for safety Life Changing Events and utilizing data from field assessments to develop performance improvement initiatives. See Recommendation XI-1.

***Reliability Performance***

The Companies continue to monitor reliability performance through tracking of SAIFI, CAIDI, and SAIDI metrics in addition to the Companies' detailed plans intended to facilitate meeting their respective twelve-month and three-year performance standards. Reliability performance goals are reviewed and modified consistent with the projected improvement resulting from the plans. Additionally, the Companies continue to evaluate performance through the PMRs on a monthly basis. See Recommendation VII-1.

***Damage Prevention***

The Companies updated the existing Damage Prevention Program to include detailed roles and responsibilities, links to resources and additional documents, as well as detailing the steps the Companies may take with third party excavators with repeated incidents. See Recommendation VII-5.

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**Follow-up Recommendation III-1**

*Customer Service*

The Companies continue to measure and review performance against various commitments and goals through the use of PMRs including: the New Service Installation Reports; the Residential Customer Disputes Report; the YTD Service Level Report; and four reports regarding meter reading, which are reviewed on a monthly basis. See Recommendation X-2.

*Operational Efficiency Reports*

The Companies continue to set goals and metrics annually. Goals and metrics are evaluated regularly and may be modified to ensure they align with performance objectives, commitments and regulatory requirements. Performance monitoring is completed using the ELTRs and PMRs described above to track and review performance. See Recommendation VII-3.

**Individual Responsible**

Linda Moss, President, Pennsylvania Operations

**Expected Completion Date**

Ongoing



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Implementation Plan**

**Follow-up Recommendation V-2**

Conduct periodic studies to determine if and to what extent the use of outside vendors for affiliate services is cost-justified.

**Response**

Accepted

**Action**

The Companies' Shared Services Support is being reviewed as part of a larger effort that has been undertaken at FirstEnergy over the past eighteen months called "FE Tomorrow", which will be completed and the associated recommendations implemented. FE Tomorrow was initiated as the process to define FirstEnergy's future organization to support its regulated utilities and is a study focused on identifying and understanding how Support Services and corporate functions will be provided across the future regulated organization. The objectives of the study include aligning the Shared Services organization to efficiently support the regulated-only vision and ensuring each utility retains an appropriate cost structure and is not burdened by legacy competitive business support costs. To the extent that the FE Tomorrow team identifies or has identified that the use of outside vendors for affiliate services may be a viable or less costly option in meeting its objectives, it may conduct further studies to make that determination.

FirstEnergy believes that this effort, along with its existing processes to validate the cost competitiveness of affiliate services, address the points set forth by the recommendation and will ensure that this review process continues consistent with that recommendation.

**February 1, 2019 Progress Report**

As noted above, the Companies' Shared Services Support was reviewed as part of a larger effort that was undertaken at FirstEnergy over the past eighteen months called "FE Tomorrow", which was initiated as the process to define FirstEnergy's future organization to support its regulated utilities and is a study focused on identifying and understanding how Support Services and corporate functions will be provided across the future regulated organization. As part of FE Tomorrow, the Company began an outsourcing partnership to handle all calls to the IT Service Desk. Overall, the Company identified approximately \$385 million of total cost reductions in its Shared Services Support organization beginning in 2019. In mid-2018, the Company implemented a voluntary early retirement program to offset nearly 500 positions and eliminated nearly 200 open positions within its Shared Services Support organization. As a result of the savings identified by the FE Tomorrow initiative, the Company reduced the Shared Services Support organization by approximately 40% and cut expenses by 43%. Furthermore, the operating expenses associated with the Company's Shared Services Support organization benchmark solidly within the top quartile of its industry.

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**Follow-up Recommendation V-2**

FirstEnergy believes that this effort, along with its existing processes to validate the cost competitiveness of affiliate services, address the points set forth by the recommendation and will ensure that this review process continues consistent with that recommendation.

**Individual Responsible**

Jason Lisowski – VP, Controller & Chief Accounting Officer

**Expected Completion Date**

Ongoing

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**Follow-up Recommendation VII-1**

Improve electric reliability performance to meet minimum standards and strive toward achieving benchmark performance through the continued coordination with the PUC's Bureau of Technical Utility Services.

**Response**

Accepted

**Action**

Met-Ed, Penelec, Penn Power and West Penn have plans to improve overall reliability and strive to meet minimum standards and achieve benchmark performance in all three reliability indices. Plans include system improvements through Long Term Infrastructure Improvement Plans ("LTIIIP"),<sup>2</sup> enhanced vegetation management, rehabilitation of circuits, as well as other more detailed projects that are targeted to improve reliability.

***Targeted Reliability Plans***

Met-Ed has identified a number of reliability projects to help reduce the number of, and limit the duration and impact of, interruption to customers, and in turn meet or exceed minimum standards and work towards achieving benchmark performance. The projects are driven through the LTIIIP, Reliability Plan and Worst Performance Circuit ("WPC") Plan. The following highlights some of the work being performed under those plans.

- 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. An example of the vegetation management improvements is the expansion of the four-year trim specification to include additional miles, the removal of overhang on the three-phase system and removal of all ash trees.
- Circuit ties and loops continue to be built between radial sections of circuits. When ties and loops are available, circuits can be switched during outages to enable faster service restoration.
- Targeted circuit rehabilitation is being performed in areas where circuits are having a high rate of equipment and line failure and animal caused outages. Equipment that may be replaced includes crossarms, capacitors, insulators, lightning arresters and connectors.

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<sup>2</sup> On February 11, 2016 the Commission approved the LTIIIPs of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company at Docket Nos. P-2015- 2508942, P-2015-2508936, P-2015-2508948, P-2015-2508931.

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- Wood poles identified by a qualified inspector as having degraded beyond restorable condition are being replaced, while poles that are restorable are being reinforced.
- Bare concentric neutral cable is being replaced as part of Met-Ed's underground distribution residential ("URD") cable replacement program. This type of cable was manufactured without an insulating jacket, thereby causing the concentric neutral wire to corrode and fail prematurely.
- Fuses and other protective devices are being installed on circuits selected based on overall performance as well as protection needs.
- Porcelain cutouts are being replaced with more robust polymer to reduce the number of recloser and circuit breaker lockouts and other equipment damage.
- Existing gang operated air brakes switches, disconnect switches and oil circuit reclosers are being replaced with supervisory control and data acquisition ("SCADA") controlled switches that will allow for remote operation to restore service to customers when an outage occurs. Remote switching eliminates the need to dispatch crews to manually operate the switches. The result is fewer customers affected and reduced outage durations.
- Met-Ed continues to address those circuits which have appeared on the 5% WPC list within its Annual Reliability Report for two or more years (see recommendation XII-4).

Penelec has identified a number of reliability projects to help reduce the number of, and limit the duration and impact of, interruption to customers, and in turn meet or exceed minimum standards and work towards achieving benchmark performance. The projects are driven through the LTIP, Reliability Plan and WPC Plan. The following highlights some of the work being performed under those plans.

- Penelec performs cycle-based tree trimming and has made vegetation management improvements such as acceleration of the trim cycle on poor performing circuits, strategic trimming based on switching capability and post storm patrols.
- Targeted circuit rehabilitation is being performed in certain zones, focusing on circuits having a high rate of equipment and line failure and animal-caused outages. Equipment that may be replaced includes crossarms, capacitors, insulators, lightning arresters and connectors.
- Porcelain cutouts are being replaced with a more robust version constructed from polymer which is likely to reduce the number of recloser and circuit breaker lockouts and other equipment damage.
- Circuit ties and loops continue to be built between radial sections of circuits. When ties and loops are available, circuits can be switched during outages to enable faster service restoration.
- Advanced protective devices such as electronically controlled reclosers and switches with modernized communication are being installed to allow for additional protection coordination.

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- To reduce the scope of outages, fuse protection and coordination recommendations on the 34.5 kV system will be constructed and implemented based on full circuit coordination studies.
- Brown porcelain cap and pin style insulators that are prone to failure, as well as switch insulators and arresters, are being replaced.
- Penelec has identified a brand of circuit breaker that fails to operate properly causing unreliable breaker operations during line outages. As a result, these select circuit breakers at 34.5 kV substations are being replaced.
- Additional SCADA controlled devices are being installed at locations on both the distribution and 34.5 kV systems that will allow for remote operation to restore service to customers when an outage occurs. Remote switching eliminates the need to dispatch crews to manually operate the switches. The result is fewer customers affected and reduced outage durations.
- Penelec continues to address those circuits which have appeared on the 5% WPC list within its Annual Reliability Report for two or more years.

Penn Power has identified a number of reliability projects to help reduce the number of, and limit the duration and impact of, interruption to customers, and in turn meet or exceed minimum standards and work towards achieving benchmark performance. The projects are driven through the LTIIP, Reliability Plan and WPC Plan. The following highlights some of the work being performed under those plans.

- Penn Power 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. In addition, Penn Power performs enhanced trimming, which removes healthy limbs overhanging primary conductors, and is increasing priority tree removal on selected circuits.
- Switches and fuses are being installed on unprotected overhead circuits for improved line sectionalizing capability, reducing the scope of an outage and allowing for quicker isolation and restoration. In addition, poles, reclosers, cutouts, arresters, fault indicators and animal guards may be replaced or installed to ensure proper line sectionalizing.
- Circuit ties and loops continue to be built between radial sections of circuits. When ties and loops are available, circuits can be switched during outages to enable faster restoration. In addition, Penn Power continues to add new substations which provide a new source to serve customers and additional capacity.
- Smaller, aging overhead conductors are being replaced to improve energy efficiency, increase capacity and improve operational flexibility.
- Bare concentric neutral cable is being replaced as part of Penn Power's URD cable replacement program. This type of cable was manufactured without an insulating jacket, thereby causing the concentric neutral wire to corrode and fail prematurely.

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- Wood poles identified by a qualified inspector as having degraded beyond restorable condition are being replaced, while poles that are restorable are being reinforced.
- Circuit breakers, station transformers and other substation equipment, such as insulators, switches, buses, arresters and conductors that are obsolete or in poor condition are being replaced with new equipment. Proactively replacing older equipment increases substation reliability and reduces the occurrence of equipment failure.
- Additional SCADA devices are being installed where circuit conditions and system performance warrant. Remote SCADA controlled devices allow for remote operation to restore service to customers when an outage occurs. Remote switching eliminates the need to dispatch crews to manually operate the switches. The result is fewer customers affected and reduced outage durations.

West Penn has identified a number of reliability projects to help reduce the number of, and limit the duration and impact of, interruption to customers, and in turn meet or exceed minimum standards and work towards achieving benchmark performance. The projects are driven through the LTIP, Reliability Plan and WPC Plan. The following highlights some of the work being performed under those plans.

- 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.
- Switches and fuses are being installed on unprotected overhead circuits for improved line sectionalizing capability, reducing the scope of an outage and allowing for quicker isolation and restoration. In addition, poles, reclosers, cutouts, arresters, fault indicators and animal guards may be replaced or installed to ensure proper line sectionalizing.
- Circuit ties and loops continue to be built between radial sections of circuits. When ties and loops are available, circuits can be switched during outages to enable faster restoration. In addition, Penn Power<sup>3</sup> continues to add new substations which provide a new source to serve customers and additional capacity.
- Smaller, aging overhead conductors are being replaced to improve energy efficiency, increase capacity and improve operational flexibility.
- Bare concentric neutral cable is being replaced as part of Penn Power's<sup>4</sup> URD cable replacement program. This type of cable was manufactured without an insulating jacket, thereby causing the concentric neutral wire to corrode and fail prematurely.
- Wood poles identified by a qualified inspector as having degraded beyond restorable condition are being replaced, while poles that are restorable are being reinforced.

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<sup>3</sup> This highlight pertains to work being performed by West Penn however Penn Power was incorrectly identified.

<sup>4</sup> See footnote 1.

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- Circuit breakers, station transformers and other substation equipment, such as insulators, switches, buses, arresters and conductors that are obsolete or in poor condition are being replaced with new equipment. Proactively replacing older equipment increases substation reliability and reduces the occurrence of equipment failure.
- Additional SCADA devices are being installed where circuit conditions and system performance warrant. Remote SCADA controlled devices allow for remote operation to restore service to customers when an outage occurs. Remote switching eliminates the need to dispatch crews to manually operate the switches. The result is fewer customers affected and reduced outage durations.
- West Penn continues to address those circuits which have appeared on the 5% WPC list within its Annual Reliability Report for two or more years.

The Companies will continuously review these plans to determine the effectiveness of the identified projects and programs in relation to actual performance results. Projects may be re-prioritized, have completion dates adjusted, or be added or removed based on ongoing engineering analysis to maximize the reliability and operating benefits to the systems as determined necessary to the established targets.

***Inspection & Maintenance***

Every two years, the Companies file Biennial Inspection, Maintenance, Repair and Replacement Plans (“Biennial Plans”). These Biennial Plans outline the basis of inspection and maintenance objectives and are designed to reduce the risk of outages on the Companies’ systems. The Biennial Plans consist of programs to conduct vegetation management, distribution overhead line inspections, distribution transformer inspections, pole inspections, recloser inspections and substation inspections. The Biennial Plans are structured in accordance with the guidelines established by the National Electrical Safety Code, the Codes and Practices of the Institute of Electrical and Electronic Engineers, Federal Regulatory Commission Regulations, and the American National Standards Institute.

***Monitoring of Performance***

The Companies will continue to regularly review (*i.e.*, daily, weekly, monthly) reliability performance. Reliability and WPC performance is also actively monitored by the PA leadership team on a monthly basis through the associated ELTRs and PMR Reports established to address Pennsylvania specific performance objectives and other regulatory requirements for Met-Ed, Penelec, Penn Power, and West Penn.

**February 1, 2019 Progress Report**

***Targeted Reliability Plans***

In response to the Commission’s September 20, 2018 Order in the Periodic Review of the Companies’ LTIIPs directing the Companies to file a new or modified LTIIP, a reliability team comprised of reliability engineers from the Companies was formed in 2018 to

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**Follow-up Recommendation VII-1**

augment the review of the Companies' LTIIIP projects, expenditures, and reliability performance, and to develop an overarching strategy for long-term reliability maintenance and improvement for all the Companies. Additionally, an independent consulting firm was retained to help ascertain the most meaningful alterations of the Companies' plans. Revised LTIIIPs were filed on January 18, 2019 which requested modifications to the approved LTIIIPs for 2019. Specifically, the revised LTIIIPs will increase overall spending in 2019 by transferring planned capital from 2020 into 2019, by allocating additional capital in 2019, by accelerating selected existing planned projects into 2019, and by adding new projects that yield reliability benefits. Additionally, the Companies will formulate and submit to the Commission by no later than 120 days prior to the expiration of the 2019 LTIIIPs, new LTIIIPs for the five-year period of 2020 to 2024, which will include programs and expenditures designed to maximize sustained reliability over the long-term.

In the short-term, this strategy will provide for an acceleration of the realization of reliability improvements from the Companies' LTIIIP programs and establish a foundation for long-term, sustainable infrastructure improvements. With this strategy, the Companies will continue to provide reliability advancements, customer service improvements, and meet the needs and demands of its customers into the future.

The following highlights some of the company-specific 2018 reliability improvements and work planned under the revised 2019 LTIIIP.

**Met-Ed**

- In 2018, Met-Ed again continued to experience the benefits of circuit rehabilitation with three additional circuits of the original sixteen circuits targeted in Met-Ed's WPC plan showing improved performance, and no longer meeting the Commission's WPC criteria.
- Met-Ed's primary revised LTIIIP programs targeting reliability improvements include SCADA device installation, targeted line rehabilitation, and circuit tie and loop creation.

**Penelec**

- In 2018, Penelec increased total infrastructure improvement spending by accelerating approximately \$15 million of the Commission-approved LTIIIP funding from 2019 and 2020 into 2018 to complement programs that minimize outage impacts and reduce equipment failure. This accelerated funding contributed to reduced equipment and line failures; new infrastructure providing contingencies for worst performing circuits; additional SCADA sectionalizing; and system and component modernization, all of which contributed to improved reliability performance in 2018.
- Penelec's primary revised LTIIIP programs targeting reliability improvements include SCADA device installation, substation breaker and recloser replacement, and targeted line rehabilitation.



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**Penn Power**

- In 2018, Penn Power targeted \$9.7 million of combined capital and maintenance to its vegetation management program and increased total infrastructure improvement spending by accelerating approximately \$7 million of its Commission-approved LTIP funding from 2019 and 2020 into 2018 for circuit, substation, and SCADA programs. The accelerated funding contributed primarily to substation equipment replacements and SCADA device installations.
- Penn Power's primary revised LTIP programs targeting reliability improvements include aggressive vegetation management, remote sectionalizing, and smart fuse installation.

**West Penn**

- In 2018, West Penn targeted an increase in the combined capital and maintenance for its vegetation management program of approximately \$4.7 million. The Company also increased total infrastructure improvement spending by accelerating approximately \$3 million of the Commission-approved LTIP funding from 2019 and 2020 into 2018 to complement programs that minimize outage impacts and reduce equipment failure. This accelerated funding was targeted at programs to reduce equipment and line failures and modernize systems and components.
- West Penn's primary revised LTIP programs targeting reliability improvements include SCADA device installation; substation equipment replacements and additions; and recloser installations and replacements.

The effectiveness of the projects and programs that comprise the LTIPs, Reliability Plans, and WPC Plans will be reviewed periodically to ensure that they remain prudent and cost-effective. Also, reliability and equipment failure trends will be analyzed on an ongoing basis. The Companies may re-prioritize, alter completion dates, and add or remove projects based on engineering analyses to maximize the reliability and operating benefits to the affected circuits, while taking into consideration the overall impact to reliability and operational improvements and the costs and benefits to customers.

***Inspection & Maintenance***

On October 1, 2017, the Companies filed their Biennial Inspection, Maintenance, Repair and Replacement Plans ("Biennial Plans") for the period of January 1, 2019 through December 31, 2020. The Companies will file Biennial Plans on October 1, 2019 for the period of January 1, 2021 through December 31, 2022. Any changes to the Biennial Plans will be contemplated at that time of preparation.

***Staffing Plans***

The Companies continue to utilize the existing workforce to engineer and construct the projects and initiatives identified within each of the Reliability, WPC, and LTIP Plans, and each Company will supplement this workforce with skilled contractors if unable to meet the manpower needs for any given project. Although a detailed staffing study has been completed, work plans can change over time and typically evolve from initial concept to

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approved detailed design through engineering analysis. Also, see Recommendation VII-3.

***Monitoring of Performance***

The Companies will continue to regularly review (*i.e.*, daily, weekly, monthly) reliability performance. Reliability and WPC performance is also actively monitored by the Pennsylvania Executive Leadership Team on a monthly basis through the associated ELTRs and PMR Reports established to address Pennsylvania-specific performance objectives and other regulatory requirements for Met-Ed, Penelec, Penn Power and West Penn.

**Individual Responsible**

Linda Moss, President, Pennsylvania Operations

**Expected Completion Date**

Ongoing

**FirstEnergy Pennsylvania Companies  
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**Follow-up Recommendation VII-2**

Enhance workforce planning and reporting to ensure adequate staffing and periodically report on staffing reviews with the PUC's Bureau of Technical Utility Services.

**Response**

Accepted in part

**Action**

A detailed staffing study was completed by the Companies on May 1, 2016, to identify attrition, transfers and promotions and develop an effective hiring plan, which included proper staffing levels of craft workers to reduce overtime and enrollment plans for the Companies' Power Service Institute ("PSI") programs. The report, which summarized the study and its findings, was submitted to the Commission's Reliability and Emergency Preparedness Section of the Bureau of Technical Utility Services on December 19, 2016.

The Companies' plan based on this study is to staff the workforce to support a steady state workload that includes day-to-day operations and a reasonable level of storm response, projected from historical averages. For instances when workload increases above steady-state levels, the Companies have the ability to supplement their own resources with those of an affiliated company to assist in completion of a project or task. The Companies also retain contractors to supplement the Companies' standard employees, particularly during construction of large capital projects. Additionally, the same approach is utilized during abnormal storm restoration events that are difficult to project staffing needs for due to their tendency to fluctuate in frequency, scope, duration and location. In those instances, the Companies look to available affiliated resources, as well as supplement with contractors or mutual assistance as an event may require. This process assists in maintaining overtime at reasonable levels, while enabling the Companies to provide timely response to outages during abnormal storm events that are not conducive to staffing through traditional workload planning.

***Ongoing Monitoring and Analysis***

The Companies continue to actively hire skilled employees through both the PSI program and externally. Staffing plans are developed by the Companies annually with focus on forecasting staffing and attrition plans and ensuring alignment with the approved staffing headcount for the current year, plus five years out. These reports are completed annually and are reviewed by leadership. The following reports are provided by the FirstEnergy Workforce Development group to assist the Companies in creating the staffing plans for the current plus five-year forecast.

- Attrition reports – These reports show analyses related to employees that leave the companies through retirement, voluntarily termination, or involuntarily termination. They display average age and a three-year percentage of attrition by employee and job group.
- Age Demographics – These reports provide an analysis of age ranges by job.

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**Follow-up Recommendation VII-2**

The Companies will conduct enhanced workforce analysis routinely based on the dedicated overtime allowance of 15% in aggregate. Historic storm data<sup>5</sup> will be used as the basis for projected storm activity for the upcoming year including all storms except those that can be excluded per 52 Pa. Code § 57.192. In addition, the analysis will be performed for every service center at each of the Companies. All aspects of annual planning for field operations such as emergency restoration, inspection and maintenance work, capital work, training, leave usage and administrative/nonproductive time will be included.

In addition, the Companies continue to track and monitor overtime by issuing weekly financial reports and performing additional analyses on a monthly basis as part of the ELTRs reviewed by the Pennsylvania leadership team.

Through response to Recommendation VII-3, the Companies will perform a best practice review on staffing, call-out acceptance, and shift work strategies, as well as an analysis of additional shifts for each service center and report on the findings to the PUC's Bureau of Technical Utility Services.

**February 1, 2019 Progress Report**

The Companies continue to develop and utilize annual Staffing Analysis plans to address staffing levels based on projected retirements and other attrition. Additionally, the Companies continue to track and monitor overtime by issuing weekly financial reports and performing additional analysis on a monthly basis through the ELTRs. Also, see Recommendation VII-3 for information on the best practice review on staffing, call-out acceptance, and shift work strategies.

**PSI Program**

The Companies continue to maintain the PSI programs with the objective to proactively hire individuals that will fulfill the line worker and substation electrician staffing needs of the Companies. The table below provides the updated enrollment numbers for the Companies. The actual enrollment numbers for 2018 overall were higher than projected. The projected total was 73, and the actual enrollment total was 93. The total hires overall in 2018 from the PSI two-year program is 99.

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<sup>5</sup> Historic storm data is not available for all companies for a ten-year history. Available data will be used for this analysis.

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**Follow-up Recommendation VII-2**

**PSI Enrollment Summary**<sup>1,2</sup>

	2016 Projected	2016 Actual	2016 Difference	2017 Projected	2017 Actual	2017 Difference	2018 Projected	2018 Actual	2018 Difference	2019 Projected
<b>Line Worker Total</b>	75	76	1	52	74	22	71	76	5	81
Met-Ed	15	15	0	12	15	3	24	21	-3	27
Penelec	24	25	1	24	25	1	18	26	8	24
Penn Power	8	8	0	6	6	0	5	5	0	2
West Penn	28	28	0	10	28	18	24	24	0	28

	2016 Projected	2016 Actual	2016 Difference	2017 Projected	2017 Actual	2017 Difference	2018 Projected	2018 Actual	2018 Difference	2019 Projected
<b>Substation Total</b>	20	30	10	11	23	12	11	16	5	19
Met-Ed	4	10	6	3	5	2	4	4	0	10
Penelec	6	6	0	6	6	0	3	6	3	6
Penn Power	3	5	2	0	4	4	1	1	0	0
West Penn	7	9	2	2	8	6	3	5	2	3

	2016 Projected	2016 Actual	2016 Difference	2017 Projected	2017 Actual	2017 Difference	2018 Projected	2018 Actual	2018 Difference	2019 Projected
<b>PSI Total</b>	95	106	11	63	97	34	82	92	10	100
Met-Ed	19	25	6	15	20	5	28	25	-3	37
Penelec	30	31	1	30	31	1	21	32	11	30
Penn Power	11	13	2	6	10	4	6	6	0	2
West Penn	35	37	2	12	36	24	27	29	2	31

<sup>1</sup> A decrease in enrollment numbers may vary from a personal decision to leave the program, poor academics, or poor performance as part of the program.

<sup>2</sup> The enrollment numbers for 2019 are subject to change based on annual staffing analyses.

**Individual Responsible**

Linda Moss, President, Pennsylvania Operations

**Expected Completion Date**

Ongoing

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**Follow-up Recommendation VII-3**

Conduct a best practice review of the FE-PA companies on staffing, call-out acceptance, and shift work strategies, as well as an analysis of additional shifts for each service center and report on the findings to the PUC's Bureau of Technical Utility Services.

**Response**

Accepted

**Action**

The Companies will perform a best practice review on staffing, call-out acceptance, and shift work strategies, as well as an analysis of additional shifts for each service center and report on the findings to the PUC's Bureau of Technical Utility Services

The Companies' current collective bargaining agreements are consistent in identifying expectations for employees to work overtime when requested and to respond promptly when called out for emergency work. The expectation is that employees respond when called. In addition, the Companies' leadership has met with union leadership several times to discuss strategies and processes to streamline and improve callout acceptance. The union leadership was notified of the Commission's and Companies' concerns with regard to those workers with low acceptance of emergency call outs as permitted by applicable union contracts.

In efforts to increase call out performance and reinforce expectations, the Companies use a variety of methods to address areas with low call-out acceptance rates. The approach varies based upon contractual past practices and limitations. Met-Ed, Penelec and Penn Power hold one-on-one coaching sessions, as needed, for employees performing below the Company call out acceptance average. Met-Ed, Penelec and Penn Power also recognize and use positive reinforcements to those employees performing above the Company call out acceptance average. West Penn and Penn Power have initiated pager crews that identify crews required to respond when called. West Penn also holds coaching sessions with its progressing bargaining unit employees. The following additional changes were made to reduce the first responder response times to emergency outages and to increase shift coverage reducing call-out exposure and the need for emergency call-out.

- In 2016, Met-Ed increased the number of servicemen from thirty to thirty-six and also acquired additional service vehicles for serviceman to take home, which enabled them to respond directly to emergency call-outs.
- In September 2017, Met-Ed took action by increasing the number of rotating shifts and weekend coverage servicemen in three line shops and also modified shift schedules and increased the number of alternate shift lineman in two districts.
- In March 2018, Penelec added trouble shift coverage in the Meadville District. (17 hours per day coverage Monday – Friday, and 10 hours per day coverage on

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Saturday and Sunday).

- In October 2018, Met-Ed implemented alternate shifts in three district line shops providing seven-day line crew coverage.

Finally, callout acceptance tracking data continues to be monitored as part of the PMR that is reviewed and monitored by the Pennsylvania leadership team. This includes callout acceptance rates, total calls, workers accepting, and elapsed time by month and by Company.

**February 1, 2019 Progress Report**

A team is being established comprised of representatives from each of the Companies, to analyze data and trends to determine best practices for staffing and shift work strategies. In addition, the Companies are exploring innovative ways to train and hire new skilled workers, such as working with engineering firms in such a way as to prepare the firms' employees, as they develop the skills and knowledge of the Companies' operations through contracted projects, for potential direct hire into the Companies.

A second team, comprised of the Directors of Operation Services from each of the Companies, was established to review call-out acceptance strategies. This team is looking at ways to improve both the specific call-out acceptance rates but also improved ways of measuring and monitoring employees' total overtime, which provides a more accurate measurement of employees' overtime performance. This team will continue to analyze the available data and develop recommendations based on those analyses.

In addition, the Companies continue to employ methods targeted towards a more equitable distribution of overtime hours. These methods include: 1) leveraging additional shifts for trouble workers; 2) employing contractors as a supplement to the Companies' regular status employees; and 3) working with union leadership to improve call-out acceptance levels for those employees with low acceptance rates.

The following additional changes were made to increase shift coverage reducing call-out exposure.

- In 2018, Met-Ed created alternate-shift crews in three of its line shops to provide coverage each day of the week.
- In January 2019, West Penn ratified an agreement with its union which allows the Company to staff weekend line crews. This agreement goes into effect May 1, 2019.

Additionally, the Companies continue to hold one-on-one coaching sessions, as needed, for employees performing below the Company call out acceptance average and also recognizes and uses positive reinforcements for those employees performing above the Company call out acceptance average.

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**Follow-up Recommendation VII-3**

**Individual Responsible**

Linda Moss, President, Pennsylvania Operations

**Expected Completion Date**

Ongoing



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**Follow-up Recommendation VII-4**

Conduct a best practice review of Penn Power's worst performing circuit rehabilitation strategy; implement changes across the FE-PA company footprint based on the review; and continue to coordinate with the PUC's Bureau of Technical Utility Services.

**Response**

Accepted

**Action**

The Companies will conduct a review of Penn Power's WPC rehabilitation strategy in order to identify any potential best practices and will implement these practices across the Companies' footprint based on the results of this evaluation.

Based on the Commission's Order dated March 30, 2015, each of the Companies completed in-depth analyses of their respective WPC performance. Using these analyses, each Company developed a WPC Plan that addressed circuits from its respective 5% WPC list as provided in their Annual Reliability Reports for two or more years from 2010 through 2014 with the objective of implementing remedial actions to improve circuits identified. Many of the circuits that appeared on the 5% WPC list for two or more years between 2010 and 2014 were circuits that had more exposure than an average circuit by being generally longer and located in areas that were difficult to access.

Met-Ed had identified eleven circuits which remained on the 5% WPC list within the Annual Reliability Report for two or more years for the 2010 through 2014 period. The top outage causes for these circuits included off right of way ("ROW") trees, and equipment and line failures. The focus for remediation of the WPCs was on accelerated and enhanced vegetation management, targeted circuit rehabilitation, porcelain cutout replacement, SCADA switch installation, and specific projects to create ties and split circuits. In addition, work completed through the LTIIP contributes to remediation of the circuits. Through the projects completed as part of the WPC Plan, seven of the originally identified WPCs have ceased to appear on the 5% WPC list within the Annual Reliability Report for two or more years.

Penelec had recognized nineteen circuits which appeared on its 5% WPC list within the Annual Reliability Report for two or more years between 2010 and 2014. Penelec's top outage causes for these circuits included off ROW trees, and equipment and line failures. The WPC Plan for Penelec concentrated on accelerated and enhanced vegetation management, targeted circuit rehabilitation, porcelain cutout replacement, SCADA switch installation, modular substation construction, and other substation upgrades. In addition, work completed through the LTIIP contributes to remediation of the circuits. As a result of the projects completed as part of its WPC Plan, five of the originally

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identified WPCs have ceased to appear on the 5% WPC list within the Annual Reliability Report for two or more years.

Penn Power did not detect any circuits appearing on its 5% WPC list within the Annual Reliability Report for two or more years between 2010 and 2014. However, Penn Power continued to monitor WPC performance to proactively target potential circuit deficiencies in the future. Based on this approach, Penn Power proactively identified a circuit that appeared on the 5% WPC list within the Annual Reliability Report two consecutive years. As a result of this performance, Penn Power completed a remediation project in 2017, which resulted in removing the circuit from the 5% WPC list within the Annual Reliability Report that year.

West Penn had identified six circuits which remained on its 5% WPC list within the Annual Reliability Report for two or more years between 2010 and 2014. The top outage causes of West Penn's WPCs included off ROW trees and weather-related outages. The target for remediation activities included vegetation management and the installation of additional circuit ties and reclosers. In addition, work completed through the LTIIP contributes to remediation of the circuits. As a result of the projects completed as part of its WPC Plan, all six of the originally identified WPCs have ceased to appear on the 5% WPC list within the Annual Reliability Report for two or more years for West Penn.

The Companies continue to monitor WPC performance to proactively target any potential future circuit deficiencies. While the Companies' plans are designed with the goal of removing circuits appearing for two or more years from the 5% WPC lists, this result may not be possible in all scenarios due to challenges with some circuits. In order to ensure that resources are effectively utilized to target remediation of the circuits, the Companies will continuously review their respective WPC Plans to determine the effectiveness of the identified projects and programs in relation to actual performance results. The Companies may re-prioritize, alter completion dates, and add or remove projects based on ongoing engineering analyses to maximize the reliability and operating benefits to their systems, while taking into consideration the overall impact to reliability improvement and the cost benefits to customers.

***Monitoring***

WPCs will continue to be monitored on a monthly basis by the Pennsylvania leadership team through the PMRs.

**February 1, 2019 Progress Report**

A team comprised of engineering representatives from each of the Companies and led by Penn Power was established to conduct a best practice review of Penn Power's worst performing circuit rehabilitation strategy. Specific best practices such as performing thermal scans on select circuits during historical peak loads, expanding off right-of-way tree removals on select circuits with high numbers of tree-related outages, and conducting reviews of "customers

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**Follow-up Recommendation VII-4**

experiencing multiple interruptions” (“CEMI”) on all circuits are currently being evaluated. Each of the Companies are currently applying these best practices to some degree, which is providing meaningful results while being cost effective. This team is continuing to evaluate ways to help bring consistent practices across the Companies

The Companies also continue to monitor circuit performance. As an element of that responsibility, WPCs are monitored through the Pennsylvania Management Reports, which are closely reviewed by the Pennsylvania Executive Leadership Team (See Recommendation III-1).

The Companies will continue to report their progress regarding these implementation plans on an annual basis in their Quarterly and Annual Reliability Reports filed under 52 Pa. Code § 57.195 as directed by the Pennsylvania Public Utility Commission in its March 30, 2015 and November 5, 2015 management audit orders.

**Individual Responsible**

Linda Moss, President, Pennsylvania Operations

**Expected Completion Date**

Ongoing

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**Follow-up Recommendation VII-5**

Enhance the Damage Prevention Program by defining roles and responsibilities, developing mapping standards, and fully referencing all operational practices and manuals within the Damage Prevention Program.

**Response**

Accepted

**Action**

The Companies will establish and define roles and responsibilities in the Damage Prevention Program and will include a link or resource documenting the specific engineering practices and guidelines, operational practices, customer and contractor specifications and mapping standards for ease of reference to the reader. In addition, the process for excavator identification and notification of repeat offenders will be detailed in the revision.

**February 1, 2019 Progress Report**

The Companies updated the existing Damage Prevention Program to include roles and responsibilities as recommended. The Program also now includes internal and external website links to documents and resources for engineering practices and guidelines, operational practices, customer and contractor specifications, and mapping standards. In addition, the Program now details the steps the Companies may take to educate and work with third party excavators with repeat incidents. The Companies will continue to review and modify this Program, as needed, on an ongoing basis.

**Individual Responsible**

Linda Moss, President, Pennsylvania Operations

**Expected Completion Date**

Complete

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**Follow-up Recommendation VII-6**

Complete the backlog reduction plan for Priority 3 repairs as scheduled and utilize the transmission group employees to continue to address future transmission repairs in a timely fashion.

**Response**

Accepted

**Action**

***Backlog Reduction Plan***

Met-Ed and Penelec developed the referenced five-year backlog plan to address all existing P3 conditions and focused first on corrective action for P3 conditions that have the *highest potential* to impact system reliability or hinder proper public notice.<sup>6</sup>

The P3 backlog starting point for the Companies was April 30, 2015. Any new P3s identified are tracked and, also completed over the course of the five-year plan. New P3 conditions that are identified but not currently accounted for in the existing backlog are prioritized and addressed based on the same evaluation criteria used to prioritize existing P3 conditions and are built into the reduction schedule below.

The Companies have achieved the following minimum milestones for the program to date:

- 10% to be completed in 2015
- 10% to be completed in 2016
- 25% to be completed in 2017

Looking forward through the remainder of the plan, the Companies anticipate achieving the following remaining milestones:

- 25% to be completed in 2018
- 30% to be completed in 2019

Note that the Companies are on track to meet their 2018 goals as of the time of this report. The most current data available is reflected in the table below.

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<sup>6</sup> Note that where P3 conditions are identified, the reliability impact remains insignificant; otherwise, the condition would be categorized as a Priority 2 or Priority 1.

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**Follow-up Recommendation VII-6**

<b>Description</b>	<b>Met-Ed</b>	<b>Penelec</b>
2015 Existing Backlog	2,077	2,357
Assumed Additions to Backlog (through 2019)	1,000	3,148
Total Goal for Backlog Reduction in 2018	769	1,376
Actual Backlog Reduction as of June, 2018	386	746

***Ongoing Monitoring***

The Pennsylvania leadership team continues to monitor P3 conditions and progress towards the annual goal on a monthly basis as part of the PMRs.

**February 1, 2019 Progress Report**

The Companies continue to work in accordance with the five-year plan and are on track to address all existing and newly identified P3 conditions consistent with the stated timelines.

***Reducing Existing P3 Conditions in Backlog***

The goal for reducing the 2018 existing conditions for Met-Ed and Penelec was calculated by multiplying the backlog as of April 30, 2015 by 25%. This was the basis for the milestone established to meet in 2018 for reducing the existing conditions.

***Reducing Newly Identified P3 Conditions Added to the Backlog***

The Companies evaluated the historical annual additions and utilized that data to forecast the total number of newly added P3 conditions over the next five years. Thus, the five-year total of conditions for Met-Ed and Penelec was forecasted to be 1,000 and 3,148 respectively. The Companies used these forecasts to establish the 25% reduction goal for reducing 2018 newly identified conditions.

***Summary of 2018 Progress***

In 2018, the Companies exceeded their established milestone of reducing the accumulated backlog total by 25%, with Met-Ed and Penelec each reducing their backlog by 798 and 1,396 conditions, respectively (see table below).

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**Follow-up Recommendation VII-6**

<b>Description</b>	<b>Met-Ed</b>	<b>Penelec</b>
2015 Existing Backlog	2,077	2,357
Assumed Additions to Backlog (through 2019) <sup>7</sup>	1,000	3,148
Total Goal for Backlog Reduction in 2018	769	1,376
Actual Backlog Reduction in 2018	798	1,396

***Ongoing Monitoring***

The Companies will continue to report their progress regarding P3 conditions on a quarterly basis in their Quarterly Reliability Reports filed under 52 Pa. Code § 57.195 as directed by the Pennsylvania Public Utility Commission in its March 30, 2015 and November 5, 2015 management audit orders.

The Pennsylvania Executive Leadership Team continue to monitor P3 conditions as part of the Pennsylvania Management Reports.

**Individual Responsible**

Linda Moss, President, Pennsylvania Operations

**Expected Completion Date**

December 31, 2019

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<sup>7</sup> Between 2015 and 2019, the Companies added fewer conditions to the backlog than originally estimated in 2015, resulting in less P3 conditions in 2019. Therefore, the Companies are ahead of the plan to complete the remaining backlog conditions in 2019.

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**Follow-up Recommendation IX-1**

Continue participation in utility benchmarking studies to ensure inventory goals and practices are aligned with top quartile performing utilities.

**Response**

Accepted

**Action**

The Companies will participate annually in utility benchmarking studies, such as the Utilities Purchasing Management Group (“UPMG”), as appropriate. Inventory turnover goals will be updated annually as appropriate based on UPMG survey results.

**February 1, 2019 Progress Report**

In 2018, the Companies again participated with thirty-one other utilities in the UPMG survey. Similar to performance in 2012 through 2016, the Companies and their affiliates benchmarked in the top quartile for inventory dollars per customer and inventory dollars per line mile for 2017, improving from their previous standing in the third quartile to performing in the second quartile for their inventory turn-over rate.

**Individual Responsible**

Chris Trump, Director, Transmission and Distribution Warehousing and Materials Management

**Expected Completion Date**

Ongoing



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**Follow-up Recommendation X-2**

Continue to decrease the number of meters not read in six and twelve months to be in full compliance with § 56.12.

**Response**

Accepted

**Action**

Meter reading managers and supervisors proactively concentrate on accounts with less than six consecutive estimates to prevent them from accruing six months of estimates. The primary issue with meters being estimated for six or more months is due to problems with accessibility. Therefore, the Companies created a process to target reduction with access-related estimates, as outlined below, as well as the Smart Meter implementation, which is expected to be completed by December 31, 2019.

- Each of the Companies evaluate their individual estimates monthly to determine which estimates are a result of access issues.
- If a reading cannot be obtained due to an access issue, the Company will initially send a letter to the customer requesting that the customer resolve the access issue.
- The Company will continue to send access letters to the customer notifying them up through the point that termination activities commence. In the interim, supervisor field visits and phone calls to the service location may be used to assist in obtaining meter access.
- When the Company reaches the point of termination, the Company will attempt to contact the customer prior to sending a letter notifying the customer that he/she has ten days to make arrangements for a meter reading. If the Company does not receive a response, a notice will be posted at the property seventy-two hours in advance of the termination as a final warning. If response to both notifications is not received, the service will be disconnected.

***Performance Metrics***

The Companies established target goals tied directly to the number of meters included in the six and twelve-month “no read” measure. The objective of the goal created by the Companies was to produce steady improvement during their transition to smart meters with a reduction each year over the respective Company’s 2014 performance. Target goals excluded meters which cannot be disconnected per regulatory guidelines (e.g., instances where it is determined that cutting service at the pole will impact other customers). However, the target performance goal will be revised to continue to decrease the number of meters not read in six and twelve months to be in full compliance with 52 Pa. Code § 56.12, as indicated in the response to III-1. The Companies will continue to monitor performance in the PMRs monthly, which will enable consistent review and the ability to

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**Follow-up Recommendation X-2**

analyze the month's events and establish gap closure plans as trends dictate.

**February 1, 2019 Progress Report**

**Performance Metrics:**

The target goal for the number of "no read" meters for six and twelve months has been revised to continue to decrease the number of meters not read and to be in full compliance with 52 Pa. Code § 56.12. The Companies continue to follow the process to reduce the access-related estimates and implement Smart Meters. Additionally, six and twelve-month no-read performance continues to be monitored monthly as part of the Pennsylvania Management Reports by the Pennsylvania Executive Leadership Team (See Recommendation III-1).

In 2018, the Companies continue to show an upward trend in the percent of meter read rates and met or exceeded their target goal for the six-month and twelve month "no read" measures (see charts below).

<b>Number of residential meters with no actual reading within last 6 months per PUC Quality of Service Annual Report</b>		
<b>OpCo</b>	<b>2018 Actual*</b>	<b>2018 Goal</b>
Met-Ed	23	≤30
Penelec	6	≤30
Penn Power	0	0
West Penn	9	≤30

<b>Number of residential meters with no actual reading within last 12 months per PUC Quality of Service Annual Report</b>		
<b>OpCo</b>	<b>2018 Actual*</b>	<b>2018 Goal</b>
Met-Ed	0	0
Penelec	0	0
Penn Power	0	0
West Penn	0	0

\*Represents year end average for 2018

**Technological Enhancements:**

The interim solution to utilize smart meter readings ahead of full deployment of the billing functionality continues to be utilized by all Companies. Approximately 97% of smart meters are installed throughout the Companies' territories and of those installed, approximately 72% are bill certified.

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**Follow-up Recommendation X-2**

**Individual Responsible**

Linda Moss, President, Pennsylvania Operations

**Expected Completion Date**

December 31, 2019

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**Follow-up Recommendation X-6**

Follow-up Recommendation - Establish stricter goals for collection agencies to achieve net collection performance comparable to other utilities, monitor the performance of each collection agency, and replace any agency that does not achieve the goals.

**Response**

Accepted

**Action**

The following action will be performed with the objective to increase collection agency performance for the Companies.

- Establish net collection percentage target goals for collection agency performance at each collection step (final bill, primary, secondary) and communicate goals to agencies. These goals will be based on collaboration with peer utilities to understand the goals they have with their collection agency partners.
- Collaborate with collection agency partners to develop and implement a monitoring process and scorecard to track performance.
- Monitor performance of each agency against the goals.
- Hold collection agencies accountable for performance against goals and take necessary actions when needed, including agency replacement when goals are not achieved.

**February 1, 2019 Progress Report**

The Companies are actively working towards establishing and monitoring net collection target goals, part of which effort has included working with other electric distribution companies to identify best practices. The Companies are on track to have established goals and associated tracking mechanisms in place by the original expected completion date.

**Individual Responsible**

Matt Green – Manager, Revenue Operations Vendor Services

**Expected Completion Date**

April 30, 2019

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**Follow-up Recommendation XI-1**

Continue to periodically review and improve upon the existing safety programs to attain performance consistent with established safety goals.

**Response**

Accepted

**Action**

In 2014 and 2016, the Companies conducted safety culture surveys in order to identify safety related concerns, perceptions and behaviors of employees. The results from these surveys continue to be utilized as foundational building blocks for safety initiatives, leader/worker interactions, and communications at the Companies. The focus areas resulting from the surveys were: 1) increase employee engagement; 2) build leadership skills and credibility; 3) improve communications; 4) improve employee recognition; and 5) continued focus on human performance principles and tools. The Companies implemented various actions, as detailed below, to target the focus areas and encourage a strong safety culture in the pursuit of an incident free work environment.

Human performance tools and concepts continue to be integrated into day-to-day work processes. These include methods such as error prevention tools, job briefings, reverse job briefings, questioning attitude, self-check, peer check and two-minute drills. These methods are applied during leader job site observations, safety meetings, investigations, coaching of employees, and other day-to-day work activities.

Investigations continue to be performed when an incident occurs, as well as all near misses that are reported are reviewed to identify the root cause. The Companies' review process includes a systematic approach in finding the apparent cause and corrective actions. Employee engagement is reinforced during this process by including the individual worker in the event review and in the development of causes and actions to prevent future incidents. Communications are also improved by raising safety awareness and sharing lessons learned.

The Companies continue to have annual safety kickoff meetings with employees. During these meetings, discussions are held with management teams and employees around safety performance, objectives, and initiatives for the upcoming year and beyond. Throughout the year, safety meetings continue in each of the Companies, providing employees updates regarding performance, reviews of incidents, and other safety related messages.

In efforts to reward safe work practices, the "President Award" is still presented to areas with exemplary safety performance and records. The accomplishments continue to be recognized by the VP, Utility Operations at the Corporate Labor/Management Safety

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**Follow-up Recommendation XI-1**

**Committee Meetings.**

The Companies also conduct local Labor/Management Safety Committee meetings, allowing employees to share safety concerns and work collaboratively through open dialogue and participation on teams to address those concerns. Through these efforts, employee engagement increases, and issues are resolved in a timely fashion.

For 2018, a new Key Performance Indicator was developed for safety on Life Changing Events (“LCEs”) This new indicator measures the total number of LCEs, which are considered life threatening work-related injuries or illnesses that require immediate life preserving rescue action, life altering work related injuries or illnesses that resulted in a permanent change or disables that person’s normal life activity. This is not a new safety program; rather, it is an increased focus on life changing events and what causes them.

In addition, the Companies are working with DEKRA, a well-established safety consultant and expert in the electric utility industry to assist in identifying areas for improvement with safety. DEKRA will be conducting safety observations at each of the Companies, and will also be identifying areas of exposure, aligning leadership practices with the desired culture, and recommending changes to our systems to more fully support our safety improvement efforts. DEKRA will be evaluating what causes exposure to safety hazards in the organization and help the Companies to better understand how to identify and mitigate those hazards.

**February 1, 2019 Progress Report**

The Companies continue their focus on the five areas identified from the survey results as cornerstones to promote a strong safety culture in the pursuit of an incident free work environment: 1) increase employee engagement; 2) build leadership skills and credibility; 3) improve communications; 4) improve employee recognition; and 5) continued focus on human performance principles and tools.

Safety kickoff meetings have been scheduled for all Companies to be held during the first quarter of 2019. During these meetings, the Companies’ management teams will visit with all employees for face-to-face discussions around safety performance, review objectives, and initiatives for the upcoming year and beyond.

The President’s Award will continue to be presented to areas with exemplary safety performance and records, as a means of employee recognition. The accomplishments continue to be recognized by the VP, Utility Operations at the Corporate Labor/Management Safety Committee Meetings. In 2018, approximately 1,900 employees across Companies were recognized with the President’s Safety Excellence Award.

Also, during 2018, a new Key Performance Indicator was developed for safety on LCEs. This new indicator measures the total number of LCEs, which are considered life threatening work-related injuries or illnesses that require immediate life preserving rescue action, life altering work related injuries or illnesses that resulted in a permanent change or

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disables that person's normal life activity. This is not a new safety program; rather, it is an increased focus on life changing events and what causes them through the use of this new Key Performance Indicator. The Companies experienced no life changing events in 2018.

During 2018, DEKRA conducted field safety assessments of the Companies. Data from these assessments are currently being evaluated for use in developing additional performance improvement initiatives.

**Individual Responsible**

Linda Moss, President, Pennsylvania Operations

**Expected Completion Date**

Ongoing

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**Follow-up Recommendation XI-2**

Continue efforts to reduce absenteeism through improved sick leave monitoring, counseling, and sharing of best practices.

**Response**

Accepted

**Action**

The Companies will continue to evaluate practices for enhanced sick time monitoring and counseling, which includes sharing of best practices to implement across the board. There are, however, inherent differences in the labor union contracts and past practices which can impact results across the Companies.

The Companies each have requirements that address sick time in their existing collective bargaining agreements, as well as policies that focus on attendance. Follow up actions associated with absenteeism are based on the work rules outlined in the respective collective bargaining agreements. In support of these agreements and policies, and in order to manage absenteeism, the Companies follow a process and procedure aimed at controlling overall absenteeism. The Companies will continue to follow the processes in place as defined below to encourage employee attendance.

Employee monitoring and verification: The Companies' Human Resources Departments evaluate available information related to absenteeism and history of recurrence and advise if and when additional information is required. Absences are tracked daily and both Human Resources and the employee's supervisor review the status and maintain regular contact with the employee. The information assists in supporting company policy and expectations as well as determining return to work status. The Companies also continue to monitor absenteeism for long term absences (defined as absences over >80 hours) and short-term absences (defined as absences <80 hours).

Employee Follow-up: The Companies review the initial contact information including reason for call-off, date unavailable for work, any physician information, anticipated return to work date and required follow-up call with the supervisor. The supervisor will complete the necessary follow-up call, notify the Companies' Human Resource Department, and complete required procedural forms. The Companies also request that the treating physician provide the employee's functional capabilities upon return to work.

Medical Case Management: The Companies determine utilization of case management and submits proper procedural documentation. Human Resources and Medical Case Management work directly with the employee and supervisor with the goal of a timely and safe return to full duty work.



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The Companies continue to follow the processes in place to encourage employee attendance, as well as evaluate practices for enhanced sick time monitoring and counseling. In 2018, Corporate Human Resources also updated its Absence Management Process Standardization (“AMPS”) that is used at all Companies. AMPS is a guide to assist the Companies’ Human Resources and leadership to improve monitoring and reduce absenteeism. This process also encourages leadership to take a more proactive approach to absence management.

**Individual Responsible**

Linda Moss, President, Pennsylvania Operations

**Expected Completion Date**

Ongoing

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**Follow-up Recommendation XIII-2**

Perform, document, and retain a cost benefit analysis to substantiate its decision-making process with respect to implementing fuel disbursement mechanisms/controls at its on- site fueling stations.

**Response**

Accepted

**Action**

The Companies will perform and document a cost benefit analysis with respect to implementing fuel disbursement mechanisms and controls at on-site fueling stations. This will include obtaining current quotes from several vendors who provide minimal on- site fueling systems for just security of fuel, to those that provide systems that include security of fuel, disbursement mechanisms and controls and tracking of usage by individual vehicle. Vendor quotes will be required to include costs of equipment, software, installation and maintenance.

Once quotes have been received and reviewed, a cost benefit analysis will be performed to review and document the total costs of the various types of on-site fueling systems available and determine the overall benefit, if any, that can be obtained by implementing one.

**February 1, 2019 Progress Report**

The Companies continue the development of a cost benefit analysis with respect to implementing fuel disbursement mechanisms and controls at on-site fueling stations and are on track to meet the expected completion date. Quotes have been requested from vendors and the Companies are surveying peer utilities to understand the benefits realized by those utilities by implementing fuel disbursement mechanisms/controls.

**Individual Responsible**

Nick Vass, Director Energy Delivery Operations Support

**Expected Completion Date**

September 30, 2019



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