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September 17, 2018

VIA ELECTRONIC MAIL

George A. Dorow, Jr., Audit Supervisor
Bureau of Audits
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

Re: *Management Efficiency Investigation 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 and D-2017-2626667

Dear Mr. Dorow:

The attached Management Efficiency Investigation Plan of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company has been revised to reflect revisions to Recommendation X-6 at your request.

Please contact me if you have any questions regarding this matter.

Very truly yours,



Tori L. Giesler

Enclosure



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

MANAGEMENT EFFICIENCY INVESTIGATION

for the

**FOCUSED MANAGEMENT AND
OPERATIONS AUDITS**

September 17, 2018

**FirstEnergy Pennsylvania Companies
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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 Electric 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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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.

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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% 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 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 requirements.

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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.

Individual Responsible

Linda Moss, President, Pennsylvania Operations

Expected Completion Date

Ongoing

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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 efficiency 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.

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"),¹ 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 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.

¹ 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 LTIIP, 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 LTIP, 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 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.
- 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

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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.

Staffing Plans

The Companies’ existing workforce will be utilized 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 approved detailed design through engineering analysis. Additional enhancements to workforce planning will be incorporated consistent with the response to Recommendation VII-2.

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

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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

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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.

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- Age Demographics – These reports provide an analysis of age ranges by job.

The Companies will conduct enhanced workforce analysis routinely based on the dedicated overtime allowance of 15% in aggregate. Historic storm data¹ 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.

Individual Responsible

Linda Moss, President, Pennsylvania Operations

Expected Completion Date

Ongoing

¹ 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-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 2017, Met-Ed took action by increasing the number of rotating shifts and weekend coverage 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 September, 2018, Met-Ed is implementing alternate shifts in the Reading district which will affect the line shops of Boyertown, Hamburg, and Reading.

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.

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 LTIP 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 LTIP 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.

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.

Individual Responsible

Linda Moss, President, Pennsylvania Operations

Expected Completion Date

October 1, 2018

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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.¹

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.

¹ 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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Description	Met-Ed	Penelec
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.

Individual Responsible

Linda Moss, President, Pennsylvania Operations

Expected Completion Date

December 31, 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.

Individual Responsible

Chris Trump, Director, Transmission and Distribution Warehousing and Materials

Expected Completion Date

December 31, 2018

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

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 performances of each collection agency, and replace any agency that does not achieve the goals.

Response

Accepted

Action

The following actions 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.
- .

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 workenvironment.

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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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.

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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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.

Individual Responsible

Nick Vass, Director Energy Delivery Operations Support

Expected Completion Date

September 30, 2019