**METROPOLITAN EDISON COMPANY**

**PENNSYLVANIA ELECTRIC COMPANY**

**PENNSYLVANIA POWER COMPANY**

**WEST PENN POWER COMPANY**

**(collectively referred to as the FirstEnergy Pennsylvania Companies)**

**MANAGEMENT EFFICIENCY INVESTIGATION**

**EVALUATING SELECT RECOMMENDATIONS FROM THE**

**2014 FOCUSED MANAGEMENT & OPERATIONS AUDIT**

**Pennsylvania Public Utility Commission**

**Bureau of Audits**

**Issued September 2018**

**Docket Nos. D-2017-2626664, D-2017-2626665, D-2017-2626666, D-2017-2626667**

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**I. INTRODUCTION**

**A. Background**

On July 16, 2013, the Management Audit Staff of the Pennsylvania Public Utility Commission’s (PUC or Commission) Bureau of Audits initiated a Focused Management and Operations Audit (Management Audit) of Metropolitan Edison Company (Met-Ed), Pennsylvania Electric Company (Penelec), Pennsylvania Power Company (Penn Power), and West Penn Power Company (West Penn Power), collectively referred to as the FirstEnergy Pennsylvania Companies (FE-PA companies or companies). Met-Ed, Penelec and West Penn Power are owned by FirstEnergy Corp. (FirstEnergy). Penn Power is a subsidiary of Ohio Edison Company, which is also owned by FirstEnergy. As each of the FE-PA companies are owned and jointly operated by FirstEnergy[[1]](#footnote-1), the focused management and operations audits were conducted concurrently.

In November 2014, the Bureau of Audits issued a final report with 28 recommendations for improvement. The FE-PA companies filed an Implementation Plan on January 8, 2015. On February 12, 2015, at D-2013-236591, D-2013-2365992, D‑2013‑2365993, and D-2013-2365994, the Commission made the audit report and Implementation Plan public and directed the Companies to:

* Proceed with its January 8, 2015 Implementation Plan; and
* Submit progress reports on the implementation annually, by February 1, for the next three years.

After the Commission made the audit report and Implementation Plan public, a Commission Order was entered on March 30, 2015 directing the FE-PA companies to file a more detailed, revised Implementation Plan within sixty days or by May 29, 2015. The Revised Implementation Plan was filed on May 29, 2015, indicating acceptance of 26 recommendations, partially accepting one recommendation, and rejecting one recommendation.

Since February 2016, the FE-PA companies have submitted three Implementation Plan updates as requested to ascertain the FE-PA companies’ progress in implementing the recommendations from the management audit report. Based on a review of these updates, the auditors elected to conduct a Management Efficiency Investigation (MEI) of the FE-PA companies’ progress in implementing the 26 accepted, and one partially accepted original recommendations from the Revised Implementation Plan. The remaining recommendation was rejected by the FE-PA companies and not subject to our review. Specific items of management effectiveness and operational efficiency may be investigated pursuant to Title 66 Pa. C.S. § 516(b).

**B. Objective and Scope**

The objective of this MEI was to review and evaluate the effectiveness of the FE‑PA companies’ efforts to implement certain recommendations included in the Management Audit released in November 2014. The scope of this evaluation was limited to the FE-PA companies’ efforts in implementing the prior management audit recommendations in the functional areas of:

* Executive Management and Organizational Structure
* Corporate Governance
* Affiliated Relationships and Cost Allocations
* Financial Management
* Electric Operations
* Materials Management
* Customer Service
* Human Resources
* Fleet Management
* Facilities Management

Additionally, the PUC auditors deemed it prudent to review the FE-PA companies’ compliance with PUC regulations at 52 Pa. Code Chapter 101 regarding physical security, cyber security, emergency response, and business continuity plans.

**C. Approach**

The Management Audit Staff of the PUC’s Bureau of Audits (audit staff or auditors) began fieldwork on November 15, 2017. Fieldwork continued intermittently through April 12, 2018. The fact gathering process included:

* Interviews with companies’ personnel;

* Analysis of selected records, documents, reports, and other information for the period 2013 through April 2018; and,
* Visits to selected company facilities.

**II. SUMMARY OF MANAGEMENT EFFECTIVENESS**

**AND OPERATIONAL EFFICIENCY**

The PUC auditors found that the FE-PA companies have implemented or substantially implemented 13 of the 27 prior Management Audit recommendations reviewed and have taken some action on the remaining 14 recommendations. Among the more notable improvements are:

* Periodically rebidding and/or conducting cost comparisons for external audit services resulted in an approximate $331,000 reduction in audit fees.
* Conducting internal audits of affiliate transactions and cost allocations at least every three years.
* Establishing a written dividend policy.
* Increased inventory turnover that led to one-time savings of approximately $13.4 million in reduced inventory and annual savings from reduced carrying costs of approximately $1.34 million for the FE-PA companies combined.
* Improved meter reading performance due to smart meter deployment.
* Decreased the percentage of billing reversals through the deployment of smart meters, and changes to identifying the causes for billing reversals.
* Reduced customer service representative turnover and related costs resulting in annual savings of approximately $24,000 - $31,000 for the FE-PA companies combined while improving contact center performance.
* Reduced the number of residential disputes with a response time greater than 30 days to zero.
* Monitoring and improved all new service installation performance.
* Significantly decreased the number of meters requiring location updates.
* Implemented a written vehicle replacement policy.
* Completed a vehicle usage analysis that resulted in the elimination of excess vehicles from 2015 to 2017 for an average one-time savings of approximately $45,000 and an average annual savings from related maintenance expenses of approximately $96,000 for the FE-PA companies combined.
* Significantly reduced the number of overdue critical preventative maintenance jobs and overdue preventative maintenance jobs for vehicles owned by the FE-PA companies.
* Developed detailed policies and procedures for facility service operations.

Although these accomplishments are commendable, the PUC auditors identified opportunities for further improvement. Specifically, the FE-PA companies need to:

* Review best practices to ensure that all performance measure targets are being met, establish targets and monitor performance related to shift work, if implemented, and ensure, at a minimum, targets are at a level that meets regulatory requirements.
* Conduct periodic studies to determine if and to the extent the use of outside vendors for affiliate services is cost-justified.
* Improve electric reliability performance to meet minimum standards and strive towards achieving benchmark performance through the continued coordination of reliability activities with the PUC’s Bureau of Technical Utility Services
* Enhance workforce planning and reporting to ensure adequate staffing and periodically report on staffing reviews with the PUC’s Bureau of Technical Utility Services.
* Conduct a best practices review regarding staffing, call-out acceptance, and shift work strategies, as well as an analysis for additional shifts for each service center and report on the findings to the PUC’s Bureau of Technical Utility Services.
* Conduct a best practices review of Penn Power’s worst performing circuit rehabilitation strategy; implement changes across FE-PA company footprint based on the review; and continue to coordinate with the PUC’s Bureau of Technical Utility Services.
* 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.
* 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.
* Continue participation in utility benchmarking studies to ensure inventory goals and practices are aligned with top quartile performing utilities.
* Continue to decrease the percentage and number of meters not read in six and twelve months to be in full compliance with § 56.12.
* Establish goals for collection agencies to achieve net collection performance of 11% for primary collections and 2% for secondary collections, monitor the performances of each collection agency, and replace any agency that does not achieve the goals. These improvements could result in reduced borrowing with a potential average annual cost savings of approximately $75,000 from reduced interest expense for the FE-PA companies combined.
* Continue to periodically review and improve upon the existing safety program and the implementation of new safety programs to attain performance consistent with established safety goals.
* Continue efforts to reduce absenteeism through improved sick leave monitoring, counseling, and sharing of best practices.
* Perform, document, and retain a cost benefit analysis to substantiate the decision making process with respect to implementing fuel disbursement mechanisms/controls at on-site fueling stations.

Exhibit II-1 summarizes the 27 prior recommendations reviewed and the PUC auditors’ follow-up findings, conclusions, and recommendations.

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| --- | --- | --- |
| **Prior MA Recommendations** | **MEI Follow-up Findings and Conclusions** | **MEI Follow-up Recommendations** |
| **III. EXECUTIVE MANAGEMENT AND ORGANIZATIONAL STRUCTURE (Page 11)** | | |
| Establish target goals for metrics used in the Executive Leadership Team Reports and/or Key Performance Indicators that are linked to the FE-PA companies stated performance objectives and/or other regulatory requirements. | III-1 – FE-PA companies have not met all established target goals nor have goals been established to meet regulatory requirements for various metrics. | Review best practices throughout the FE-PA companies to ensure that all targets are being 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. |
| **IV. CORPORATE GOVERNANCE (Page 17)** | | |
| Periodically rebid and/or conduct cost comparisons for external audit services. | IV-1 – The proposed external audit fees for 2016 were benchmarked against sixteen peer companies and reviewed by management and the Audit Committee when approving the independent auditor. | None |
| **V. AFFILIATED RELATIONSHIPS AND COST ALLOCATIONS (Page 19)** | | |
| Conduct periodic internal audits of affiliate transactions and the cost allocation process. | V-1 – An Internal Audit of Pennsylvania cost allocations was released on November 16, 2017, with additional audits of affiliate transactions and cost allocations to be performed at least every three years. | None |
| The FE-PA companies do not perform studies which compare the costs for affiliate services with the costs that would be incurred if such services were outsourced. | V-2 – The FE-PA companies do not perform studies which compare the costs for affiliate services with the costs that would be incurred if such services were outsourced. | Conduct periodic studies to determine if and to what extent the use of outside vendors for affiliate services is cost-justified. |

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| **Prior MA Recommendations** | **MEI Follow-up Findings and Conclusions** | **MEI Follow-up Recommendations** |
| **VI. FINANCIAL MANAGEMENT (Page 23)** | | |
| Establish and document a dividend policy for each of the FE-PA companies, and ensure that advanced notice and explanations are submitted to the Commission prior to making future dividend payments in excess of 85% of net income. | VI-1 – A dividend policy has been established for each of the FE-PA companies. | None |
| **VII. ELECTRIC OPERATIONS (Page 27)** | | |
| Improve electric reliability performance at Penelec and Penn Power to achieve, at a minimum, both 12 and 36-month reliability standards and strive to achieve benchmark performance; and implement specific measures for West Penn Power to meet the reliability provisions of the 2010 Joint Petition. | VII-1 – The FE-PA companies have not consistently met all reliability standards since the management audit. | 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. |
| Conduct a staffing study accounting for future retirements to determine the proper staffing levels of craft workers to reduce overtime to the target level of 15% and improve reliability | VII-2 – The staffing study conducted by the FE-PA companies did not include all aspects required for a thorough review of workforce needs. | Enhance workforce planning and reporting to ensure adequate staffing and periodically report on staffing reviews with the PUC’s Bureau of Technical Utility Services. |
| Initiate policies to enforce union contract provisions which require craft worker acceptance of emergency call outs. | VII-3 – Although some improvements have been achieved, service centers are still experiencing low call-out acceptance rates and high individual overtime levels. | 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. |

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| **Prior MA Recommendations** | **MEI Follow-up Findings and Conclusions** | **MEI Follow-up Recommendations** |
| **VII. ELECTRIC OPERATIONS (Continued) (Page 27)** | | |
| Develop and implement remedial actions that effectively correct the deficiencies of circuits found on the worst performing circuits list such that the circuits do not re-appear on the list for several years. | VII-4 – Several circuits continue to appear on the worst performing circuits list for Met-Ed, Penelec and West Penn Power. | 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. |
| Establish a documented Damage Prevention Program to track and measure line hit incidents; recover damages for all line hit incidents; and to take proactive measures to mitigate future line hits. | VII-5 - FirstEnergy has developed a damage prevention plan but should take additional steps to make the plan more comprehensive. | 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. |
| Implement and/or modify backlog reduction plans for Met-Ed and Penelec in order to effectively and efficiently reduce the number of overdue Priority 3 conditions. | VII-6 - Met-Ed and Penelec are on pace to eliminate P3 backlogs by the end of 2019. | 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. |
| **VIII. EMERGENCY PREPAREDNESS (Page 49)** | | |
|  |  | None |
| **IX. MATERIALS MANAGEMENT (Page 52)** | | |
| Establish annual inventory turnover goals to a minimum of 2.0 turns and strive to achieve improved inventory levels. | IX-1 - Inventory turnover for the FE-PA companies has been improving, and FirstEnergy established turnover goals based on a survey of its peers. | Continue participation in utility benchmarking studies to ensure inventory goals and practices are aligned with top quartile performing utilities. |

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| **Prior MA Recommendations** | **MEI Follow-up Findings and Conclusions** | **MEI Follow-up Recommendations** |
| **X. CUSTOMER SERVICE (Page 56)** | | |
| Improve meter reading performance levels through increased staffing and/or use of contractors while implementing smart meter technologies. | X-1 - Meter reading performance has improved due to smart meter deployment. | None |
| Initiate measures to comply with PUC regulations by eliminating and/or substantially reducing the number of meters not read within six and twelve-month periods. | X-2 - The number of meters not read within six and twelve-month periods has been significantly reduced. | Continue to decrease the number of meters not read in six and twelve months to be in full compliance with § 56.12. |
| Reduce billing reversals and meter estimates by implementing appropriate process and procedure improvements, and better determining the cause by beginning to classify miscellaneous billing reversals. | X-3 - Billing reversals at the FE-PA companies are decreasing. | None |
| Implement measures to improve the Contact Center performance levels including efforts to reduce Customer Service Representative turnover levels. | X-4 - CSR turnover and West Penn Power’s contact center performance has improved. | None |
| Initiate measures to eliminate or substantially reduce the frequency of residential disputes that are not responded to in 30 days as required by  PUC regulations. | X-5 - Residential disputes with a response time greater than 30 days have been reduced to zero at all the FE-PA companies. | None |

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| **Prior MA Recommendations** | **MEI Follow-up Findings and Conclusions** | **MEI Follow-up Recommendations** |
| **X. CUSTOMER SERVICE (Continued) (Page 56)** | | |
| Expand efforts to reduce arrearages to levels comparable with a panel of PA EDC averages. | X-6 - Arrearages over 90 days have decreased; however, average arrearages were higher than a panel average of other Pennsylvania EDCs in 2016. | 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. |
| Monitor all new service installation performance to ensure new service installations are being completed within the targeted deadlines. | X-7 - The FE-PA companies monitor all new service installations resulting in improved performance. | None |
| Develop and maintain a customer meter record database which provides accurate data for reporting purposes, and eliminates unknown meter  location classifications as part of the Advanced Metering Infrastructure (AMI) implementation process. | X-8 - The FE-PA companies have significantly decreased the number of meters requiring location updates. | None |
| **XI. HUMAN RESOURCES (Page 88)** | | |
| Conduct a safety culture survey in-order-to identify employee safety related concerns, perceptions, behaviors and implement training, methodologies, equipment, and ergonomic changes which address the primary causes of accidents at the FE-PA companies in-order-to improve actual performance and ensure safety goals are aligned with corporate objectives. | XI-1 - The FE-PA companies’ performance regarding safety measures has been a mixed success, and the FE-PA companies continue to frequently miss target goals for safety. | Continue to periodically review and improve upon the existing safety programs to attain performance consistent with established safety goals. |

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| **Prior MA Recommendations** | **MEI Follow-up Findings and Conclusions** | **MEI Follow-up Recommendations** |
| **XI. HUMAN RESOURCES (Continued) (Page 88)** | | |
| Reduce absenteeism through appropriate enforcement of union contract language regarding provisions for sick leave as well as encouraging employee attendance. | XI-2 - The FE-PA companies experienced mixed results from their attempts to reduce absenteeism and are still not consistently meeting absenteeism goals. | Continue efforts to reduce absenteeism through improved sick leave monitoring, counseling, and sharing of best practices. |
| **XII. FLEET MANAGEMENT (Page 97)** | | |
| Develop a written vehicle replacement policy. | XII-1 - A written vehicle replacement policy was implemented in November 2014. | None |
| Install adequate mechanisms/controls at fueling stations to control fuel disbursements and track fuel usage by vehicle. | XII-2 - The FE-PA companies were unable to substantiate their decision-making process to not implement fuel disbursement mechanisms/controls at its on-site fueling stations. | 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. |
| Evaluate the need and/or usefulness of vehicles that report zero monthly usage and eliminate underutilized vehicles as appropriate. | XII-3 - A vehicle usage analysis was completed resulting in the elimination of excess vehicles in the FE-PA companies. | None |
| Initiate efforts to eliminate or minimize the level of overdue preventive maintenance jobs. | XII-4 - The FE-PA companies have significantly reduced the number of overdue critical PM jobs and overdue PM jobs. | None |
| **XIII. FACILITIES MANAGEMENT (Page 107)** | | |
| Develop written facilities management policies and procedures to assure business activities between corporate and regional facilities managers are consistent with FirstEnergy policies and procedures. | XIII-1 - Detailed policies and procedures have been developed for facility service operations. | None |

**III. EXECUTIVE MANAGEMENT AND ORGANIZATIONAL STRUCTURE**

**Background** – The 2014 Management and Operations Audit of Metropolitan Edison Company (Met‑Ed), Pennsylvania Electric Company (Penelec), Pennsylvania Power Company (Penn Power), and West Penn Power Company (West Penn Power), collectively referred to as the FirstEnergy Pennsylvania Companies (FE‑PA companies) examined the Executive Management function.

The roles and responsibilities of executive management are shared by several organizations. FirstEnergy Corporation (FirstEnergy or FE) was incorporated in 1996 as a diversified energy company organized under the laws of the state of Ohio. FirstEnergy’s Regulated Distribution business segment distributes electricity through FirstEnergy’s ten utility operating companies, including the FE-PA companies, which is also referred to as FirstEnergy Utilities (FEU). In addition, several administrative, accounting, financial, engineering, and operational services are centrally provided to FirstEnergy and FEU, including the FE-PA companies, by FirstEnergy Service Company (FESC).

The 2014 Management and Operations Audit included a review of the corporate and individual organizational structures of each of the FE‑PA companies; staffing levels and spans of control; the roles and responsibilities of executive management; strategic planning; and succession planning. The PUC auditors issued one recommendation in the Executive Management chapter and rated this functional area as needing moderate improvement. In this chapter, the prior recommendation and prior situation are reviewed, and one follow‑up finding is presented.

**Finding No. III-1**

**Prior Situation** – As of the last audit, the Executive Leadership Team (ELT) met monthly to discuss the performance of each of the FEU companies, including the FE-PA companies, in relation to the following objectives: safety, reliability, financial performance, customer service, and work management. Specific metrics were used to measure the performance of each of these objectives and included in a monthly ELT Report for each of the FEU. FEU established target goals for each metric used in the monthly ELT Reports. In many instances the performance measures were also Key Performance Indicators (KPIs) that had threshold, target and stretch goals linked to employee incentive pay. The target goals were established based upon best practices in the industry and/or regulatory requirements. In some cases, the target goals could be different for each of the FirstEnergy Utilities based upon their historical performance and unique conditions or circumstances.

The auditors reviewed a sample of the monthly ELT Reports for each of the FE‑PA companies for the period January 2012 to December 2013. The review of the monthly ELT Reports revealed that, in some cases, the target goals for certain metrics were set at inadequate levels that did not permit the FE-PA companies to achieve stated goals and comply with regulatory requirements.

For example, the FE-PA companies were focusing their efforts upon achieving the KPI target goals for safety metrics but were set at levels that would not achieve the FEU objective of attaining top decile safety performance. In some instances, the target goals for safety were set at Edison Electric Institute (EEI) top quartile performance levels until January 2013, when the targets were changed to levels slightly below top quartile performance. As a result, the established safety target goals had been amended to levels that moved further away from the stated safety objective and did not put the FE-PA companies in the best position to have their safety performance achieve FEU’s safety objective. In fact, the FE-PA companies were missing targets established for the safety metrics during the period 2009-2013 (see Follow-up Finding and Conclusion No. 1 in the Human Resources and Safety chapter).

Similar to safety, FEU used several metrics to measure reliability objectives. FEU’s objectives were to maintain its focus on reliability by achieving operating company KPIs for distribution and transmission reliability performance and meeting regulatory requirements. Some of the reliability performance metrics that appear in the ELT Reports were also used by the PUC to measure reliability performance. The auditors compared the reliability target goals established for each of the FE-PA companies to the EEI survey data as well as the PUC benchmarks and standards.

Although FEU utilized the EEI survey data for relative comparisons to industry performance, the auditors focused primarily on the PUC benchmarks. Benchmark performance represents the average level of performance that existed prior to the restructuring of the electric utility industry and the PUC had a mandate to ensure the levels of reliability that were present prior to the restructuring of the electric utility industry would continue post restructuring. Although the reliability target goals established for each of the FE-PA companies were within the range of the PUC benchmarks and minimum performance standards, the FE‑PA companies should be striving toward benchmark performance, because it represents the reliability performance that existed prior to restructuring. In fact, some of the FE-PA companies had not achieved one or more of their reliability target goals or the PUC’s minimum reliability standard for the period 2009-2013 (see Follow‑up Finding and Conclusion No. 1 in the Electric Operations chapter).

FEU also measured customer service objectives, and some of the metrics found in the ELT Reports to compare actual customer service performance to the stated target goals were also related to the PUC metrics for meters not read in six months and twelve months. Although the FE-PA companies had been achieving the target goals for these two metrics (meter read rate and consecutive meter reading estimate rate), the FE-PA companies did not have metrics associated with or monitor their regulatory compliance efforts with respect to PUC regulations for the number of meters not read in six month and twelve-month intervals. The FE-PA companies (West Penn Power in particular) had not been meeting these requirements based on their reported performance to the PUC’s Bureau of Consumer Services (see Follow‑up Finding and Conclusion No. 2 in the Customer Service chapter).

In each of these examples, the FE-PA companies established target goals for various metrics that fell short of stated objectives and/or compliance with regulatory requirements. Furthermore, compensation incentives for individuals were associated with these target goals thus creating the appearance of a culture in which underperformance was pervasive, acceptable, and rewarded.

**Prior Recommendation** – Establish target goals for metrics used in the Executive Leadership Team Reports and/or Key Performance Indicators that are linked to the FE‑PA companies stated performance objectives and/or other regulatory requirements.

**Follow-up Finding and Conclusion No. III-1 – FE-PA companies have not met all established target goals nor have goals been established to meet regulatory requirements for various metrics.**

**Current Review** – In 2015, Pennsylvania Management Reports (PMR) were established by the FE-PA companies to address specific performance objectives and other regulatory requirements to be reviewed in conjunction with the ELT Reports. Based on the various stages of development of the PMRs, the reports became available in 2015, along with target goals and performance for each metric. Exhibit III-1 shows a list of the various performance objectives developed in the PMRs and ELT Reports from 2015 to 2017 along with the target goals established for 2017 and performance summaries. Any target goal that does not meet the performance level of any applicable PUC requirement is shown in red. Those that meet PUC requirements are shown in green.

Each year, KPIs are developed in partnership with FirstEnergy’s Investor Relations and business unit management to measure how well FirstEnergy is achieving its corporate strategy. As previously stated, the KPIs have threshold, target and stretch goals linked to employee incentive pay. The 2017 KPIs were benchmarked to utility industry data, when available, to develop goal levels which specifically compare FirstEnergy’s performance against industry standards. Upon the completion of the development process, the KPIs are approved by the Compensation Committee of the Board of Directors.

Additionally, Investor Relations and business unit management develop KPIs that are specific to each of the FE-PA companies’ operational performance. These KPIs are OSHA Safety Rate, SAIDI, and CMVA. Three levels of achievement are established for each goal (i.e., threshold, target, and stretch), with each level requiring an increase in performance. These KPIs are then reviewed and signed off by executive management at the beginning of the plan year. The 2017 KPIs for OSHA Safety Rate and CMVA had their target goals set at top quartile safety performance. The 2017 KPIs for SAIDI had their target goals set at levels to achieve PUC benchmark reliability performance.

**Exhibit III – 1**

**Page 1 of 2**

**FirstEnergy Pennsylvania Companies**

**Performance Objectives in the Pennsylvania Management Reports and**

**Executive Leadership Team Reports**

**For the Years 2015 through 2017**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Corporate Objective** | **2017 Goal** | **2017 Results** | **2015 to 2017 Performance vs. Goals** | **Goal Meets PUC Requirement** |
| **METER READING** | | | | |
| Meter Read Rate | All EDC's: 94% monthly reads | 1 Month Not Met @ PP | Goal Generally Met | NA |
| Meter Not Read in Six Months | ME: 200 / month | Goals Met | Goals Always Met | NO |
| PN: 30 / month | Goals Met | Goals Generally Met | NO |
| PP: 0 / month | 2 Months Not Met | Goals Generally Met | YES |
| WP:50 / month | 1 Month Not Met | Goals Generally Met | NO |
| Meter Not Read in Twelve Months | ME: 0 / month | 1 Month Not Met | Goals Generally Met | YES |
| PN: 0 / month | Goals Met | Goals Generally Met | YES |
| PP: 0 / month | Goals Met | Goals Generally Met | YES |
| WP: 0 / month | 4 Months Not Met | Goals Generally Met | YES |
| Meters Without a Location | ME: 0.03% | Goals Met | No goals before 2017 | NA |
| PN: 0.03% | Goals Met | No goals before 2017 | NA |
| PP: 0.03% | 5 Months Not Met | No goals before 2017 | NA |
| WP: 0.03% | 1 Month Not Met | No goals before 2017 | NA |
| Meter Read Estimates | ME: 0.5% | Goals Met | Goals Always Met | NA |
| PN: 0.5% | Goals Met | Goals Generally Met | NA |
| PP: 1.0% | Goals Met | Goals Generally Met | NA |
| WP: 0.5% | 2 Months Not Met | Goals Sometimes Met | NA |
| Consecutive Meter Reading Estimate Rate | ME: 300 as of December 2017 | Goals Met | Goals Always Met | NA |
| PN: 300 as of December 2017 | Goals Met | Goals Always Met | NA |
| PP: 500 as of December 2017 | Goals Met | Goals Sometimes Met | NA |
| WP: 300 as of December 2017 | Goals Met | Goals Always Met | NA |
| **CUSTOMER SERVICE** | | | | |
| % Calls Not Answered in 30 Seconds | All EDC's: 80% | Goals Met | Goals Always Met | NA |
| Residential Disputes > 30 Days | ME: 60 / month | Goals Met | Goals Generally Met | NO\* |
| PN: 60 / month | Goals Met | Goals Generally Met | NO\* |
| PP: 60 / month | Goals Met | Goals Always Met | NO\* |
| WP: 60 / month | Goals Met | Goals Generally Met | NO\* |
| New Service Installation - Non-‑Construction | All EDC's: 100% 3-day new service standard | Goals Met | Goals Always Met | NA |
| New Service Installation - Construction | All EDC's: 90% 10-day new service standard | Goals Met | Goals Always Met | NA |

*ME= Met-Ed*

*PN = Penelec*

*PP = Penn Power*

*WP = West Penn Power*

*\* Actual performance in 2017 met the PUC requirement of 0 Disputes Greater Than 30 Days*

**Exhibit III – 1**

**Page 2 of 2**

**FirstEnergy Pennsylvania Companies**

**Performance Objectives in the Pennsylvania Management Reports and**

**Executive Leadership Team Reports**

**For the Years 2015 through 2017**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Corporate Objective** | **2017 Goal** | **2017 Results** | **2015 to 2017 Performance vs. Goals** | **Goal Meets PUC Requirement** |
| **SAFETY** | | | | |
| OSHA Safety Rate | Multi-layered goals based on EEI panel: Threshold is EEI industry avg., Target Goal is EEI top quartile, Stretch Goal is EEI top decile | Goals Not Met | Goals Generally Met | NA |
| Days Away, Restricted Work or Transferred Rate (DART) | Multi-layered goals based on EEI panel: Threshold is EEI industry avg., Target Goal is EEI top quartile, Stretch Goal is EEI top decile | PN – Threshold Goals Met; ME, PP & WP Goals Not Met | Goals Generally Met | NA |
| Chargeable Motor Vehicle Accident (CMVA) Rate (accidents per 1,000,000 miles) | Multi-layered goals: Threshold Goal is 2.25, Target Goal is 1.94, Stretch is 1.41 | ME & PN Goals Not Met; PP Target Goals Met; WP Stretch Goals Met | Goals Generally Met | NA |
| **RELIABILITY** | | | | |
| System Average Interruption Duration Index (SAIDI) | Multi-layered goals for each Co. Threshold Goal is 3 yr. rolling standard, Target Goal changed each yr. - 2017 target was same as 2016 which was 25% diff between 2015 Target and Benchmark, Stretch Goal is Benchmark | No Goals Met | Goals Sometimes Met | NA |
| Worst Performing Circuit Report | ME: 100% Monthly milestones | Goals Met | Goals Always Met | NA |
| PN: 100% Monthly Milestones | Goals Met | Performance and Goals Not Tracked in 2015; Goals Always Met in 2016 | NA |
| WP: 100% Monthly milestones | Goals Met | Goals Always Met | NA |
| Callout Acceptance Report | All EDC's: Monitored monthly | No Formal Goals | Not Applicable | NA |
| Priority 3 Transmission Backlog Reduction | ME: 769 repairs | Goals Met | Goals Always Met | NA |
| PN: 1,376 repairs | Goals Met | Goals Always Met | NA |
| **DAMAGE PREVENTION** | | | | |
| Dig-Ins (Third Party Line Hits) – Incidents Handled | ME: 0 Incidents not handled < 90 days | 8 Months Not Met | No goals before 2017 | NA |
| PN: 0 Incidents not handled < 90 days | Goals Met | No goals before 2017 | NA |
| PP: 0 Incidents not handled < 90 days | 1 Month Not Met | No goals before 2017 | NA |
| WP: 0 Incidents not handled < 90 days | 1 Month Not Met | No goals before 2017 | NA |
| Damage Claim Reimbursement – Claims Recovered | ME: 60% Claims Recovered | Not Met in All Months | No goals before 2017 | NA |
| PN: 60% Claims Recovered | 3 Months Not Met | No goals before 2017 | NA |
| PP: 60% Claims Recovered | 2 Months Not Met | No goals before 2017 | NA |
| WP: 60% Claims Recovered | 10 Months Not Met | No goals before 2017 | NA |

*ME= Met-Ed*

*PN = Penelec*

*PP = Penn Power*

*WP = West Penn Power*

Finally, target goals for various metrics should be commensurate with stated objectives and comply with applicable regulatory requirements. For example, § 56.12 (ii) states that the public utility, at least every six months, or every four billing periods for public utilities permitted to bill for periods in excess of one month, obtains an actual meter reading or customer supplied reading to verify the accuracy of the estimated readings. Met-Ed, Penelec, and West Penn Power’s metric in which meters not read in six plus months does not meet § 56.12. In addition, some of the FE-PA companies are meeting their targets, while others are not. Collaboration between the FE-PA companies regarding best practices should take place to bring all the FE-PA companies performance up to their targets. The audit staff has also recommended in Chapter VII - Operations that the FE‑PA companies conduct a cost/benefit analysis on additional shifts which should both reduce overtime and improve call-out response. New performance metrics and targets will need to be established and monitored by each of the FE-PA companies if shift work is implemented.

**Follow-up Recommendation – 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.**

**IV. CORPORATE GOVERNANCE**

**Background** – Corporate Governance is the system of rules, practices and processes by which a board of directors ensures accountability, fairness, and transparency in a company’s relationship with all its stakeholders (i.e., financiers, customers, management, employees, government, and the community). The 2014 Focused Management and Operations Audit of the FE-PA companies examined the Corporate Governance function, including a review of FirstEnergy’s and the FE-PA companies’ Boards of Directors. The review encompassed Board composition, committee structure and charters; Board fee structures; Director independence; business conduct and ethics; the independent auditor and rotation of audit firms; the Internal Audit Department’s reporting relationships and recent reviews; and documents related to corporate governance, annual reports; etc. The PUC auditors issued one recommendation within the Corporate Governance chapter and rated the functional area as needing minor improvement. In this chapter, one prior recommendation and one prior situation is reviewed and one follow‑up finding and no follow-up recommendation is presented.

**Finding No. IV-1**

**Prior Situation** – FirstEnergy Corporation (FirstEnergy) was solicited by other independent auditing firms with bids for their services after its merger with Allegheny Energy in 2011. The existing independent auditor, Pricewaterhouse Coopers, LLP, agreed to match the competitors’ prices and was retained by FirstEnergy. FirstEnergy had not periodically rebid its external audit services after 2011. The auditors felt that FirstEnergy should formally rebid or perform a cost comparison of external audit services every three to five years. Competitive bidding helps ensure high quality services at the best overall value. In addition, it is a way to encourage fresh and more independent perspectives.

**Prior Recommendation** – Periodically rebid and/or conduct cost comparisons for external audit services.

**Follow-up Finding and Conclusion No. IV-1 – The proposed external audit fees for 2016 were benchmarked against sixteen peer companies and reviewed by management and the Audit Committee when approving the independent auditor.**

**Current Review** – The Audit Committee is directly responsible for the appointment, compensation and retention of the independent auditor and evaluates the independent auditor’s qualifications, terms of engagement, compensation, performance, and independence. At the May 2016 Audit Committee meeting, FirstEnergy’s management team and the Audit Committee reviewed the existing independent auditor’s fee proposal for the 2016 external audit, including cost comparisons with peer companies. The proposed audit fees were benchmarked against 16 peer companies as shown in Exhibit IV-1. FirstEnergy’s audit fees as a percentage of revenue were lower for 2015 and 2014 compared to the panel average. FirstEnergy’s audit fees as a percentage of assets were also lower for 2015 and 2014 compared to the panel average. Consideration was also given to other significant factors such as the level of service and industry expertise. The discussion included the independent auditor’s personnel, the relationship between management and the independent auditor, and service levels, including audit scope. Based on the review, the Audit Committee adopted management’s recommendation and approved the 2016 audit fees proposed by FirstEnergy’s incumbent independent auditor. Management indicated it will continue to evaluate the proposed external audit fee each year relative to FirstEnergy’s peer companies and level of service.

**Exhibit IV – 1**

**FirstEnergy Corporation**

**Audit Fees as a Percent of Revenue, and as a Percent of Assets**

**For the Years 2014 and 2015**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Company** | **Audit Fees as a**  **Percentage of Revenue** | | **Audit Fees as a**  **Percentage of Assets** | |
|  | **2014** | **2015** | **2014** | **2015** |
| **FirstEnergy** | **0.051%** | **0.051%** | **0.015%** | **0.015%** |
| **Panel Average** | **0.061%** | **0.067%** | **0.018%** | **0.017%** |

Source: Data Request CG-2

The auditors found the proposed 2016 external audit fees to be reasonable based on the comparison against the sixteen peer companies. Audit fees decreased by approximately $331,000 (4.3%) over the period 2014 through 2016.

**Follow-up Recommendation – None**

**V. AFFILIATED RELATIONSHIPS AND COST ALLOCATIONS**

**Background** – As part of normal business activities, the FE-PA companies conduct business with FirstEnergy and its subsidiaries, including FirstEnergy Service Company (FESC), which provides various administrative and general services for the FE-PA companies and other affiliated companies. The 2014 Focused Management and Operations Audit of the FE-PA companies examined the Affiliated Relationships and Cost Allocations of the FE-PA companies, including a review of the cost allocation methodologies; affiliated interest agreements and inter-company transactions; compliance with existing cost allocation policies, practices, and procedures; ring-fencing efforts; and a review of competitive safeguards. The PUC auditors issued two recommendations in the Affiliated Relationships and Cost Allocations chapter and rated the functional area as needing moderate improvement. In this chapter, two prior recommendations and two prior situations are reviewed and two follow‑up findings and one follow-up recommendation are presented.

**Finding No. V-1**

**Prior Situation** – As of the last audit, Internal audits of affiliate transactions and the cost allocation process were not regularly performed. The auditors reviewed internal audit reports issued January 1, 2008 through April 25, 2013 by both Allegheny Energy Service Corporation and FirstEnergy Service Company (FESC). Prior to a merger between FirstEnergy and Allegheny Energy, internal audits at West Penn Power were performed by Allegheny Energy Service Corporation. Just one internal audit of affiliate transactions and the cost allocation process affecting the FE-PA companies was performed during this time. More specifically, the one internal audit performed, titled Corporate Allocations Engagement, was completed in May 2009 by Allegheny Energy and would have affected West Penn Power as a subsidiary of Allegheny Energy at the time. The audit noted a minor control weakness related to SAP, the accounting system used by Allegheny Energy. No other internal audits were performed at the FE-PA companies during this period by either Allegheny Energy or FirstEnergy.

Although FESC’s Internal Audit Department (IA) used a risk-based approach to develop its annual internal audit program, affiliate transactions and cost allocations issues were never ranked high enough of a concern to be selected as part of any audit program for the FE-PA companies during the period reviewed. An internal audit of Jersey Central Power & Light Company (JCP&L), an affiliate of the FE-PA companies, titled *Audit of the JCP&L Affiliate Relations Standards and Associated Transactions* was released in January 2014. This audit resulted in four recommendations designed to strengthen the internal control environment to comply with New Jersey code of conduct regulatory requirements and promote accurate and more transparent FESC charges billed to JCP&L and other FirstEnergy affiliate companies. The audit was conducted in response to an outside consultant’s recommendation that periodic internal audits be conducted of FirstEnergy’s affiliate transactions and the associated direct billing/indirect cost allocations.

**Prior Recommendation** – Conduct periodic internal audits of affiliate transactions and the cost allocation process.

**Follow-up Finding and Conclusion No. V-1 – An Internal Audit of Pennsylvania cost allocations was released on November 16, 2017, with additional audits of affiliate transactions and cost allocations to be performed at least every three years.**

**Current Review** – The objective of the *Audit of the Pennsylvania Cost Allocations as of October 20, 2017* was to assess the overall control environment of the FirstEnergy Cost Allocation Manual (CAM) and determine if the cost allocation methodologies were adequately designed and operating effectively. The audit found that internal controls, which govern and support the cost allocation process, were adequately designed and operating effectively to provide a reasonable level of assurance regarding the reliability and integrity of the allocation of the charges billed to FE-PA companies, in accordance with the service agreement and CAM requirements.

IA develops its audit plan using a periodic risk-based audit selection process. Audits in areas such as affiliate transactions and the cost allocation process are periodically placed on the annual audit plan based on the results of the risk assessment. In addition to the risk-based audit planning, there are several key Sarbanes-Oxley controls over financial planning related to cost allocations. These controls are periodically monitored by the business unit and formally reviewed annually by IA. IA plans to ensure that, as part of its audit selection and planning process, periodic internal audits are performed for affiliate transactions and cost allocations at least every three years.

On an annual basis, General Accounting (GA) works with the business units to review the Allocation Methodologies to determine whether 1) billing allocators are still valid; 2) new allocators are needed; and 3) cost centers are using the correct billing factors. Reviews of cost centers are performed by business units (FirstEnergy, FirstEnergy Utilities, and FirstEnergy Solutions/FirstEnergy Generation) and final approvals are provided by the Assistant Controllers of the appropriate FirstEnergy business unit. The Information Technology (IT) Allocation Factors are reviewed and approved by the Manager of IT Services. Once all approvals have been obtained, the assessment cycles containing the appropriate cost centers are updated. After cycles are run for the first time for the calendar year, GA selects a 10% sample of the cost centers and reviews the assessments to validate that allocations factors have been applied to the cost centers appropriately in SAP.

**Follow-up Recommendation – None**

**Finding No. V-2**

**Prior Situation** – As of the last audit, FirstEnergy did not perform cost/benefit analyses to assess the provision of services by each of the FE-PA companies or their affiliates. Cost/benefit analyses related to the provision of services were not performed during the 2010 through mid-2013 timeframe. FirstEnergy believed that FESC functions were more efficient and effective on a centralized basis. However, without conducting periodic cost/benefit reviews, FirstEnergy was unable to demonstrate that the centralized services received from affiliates were of sufficient quality and cost-competitive with outsourcing options.

**Prior Recommendation** – Perform periodic studies to determine the cost‑competitiveness of affiliate services and solicit bids from other providers when costs appear to be high.

**Follow-up Finding and Conclusion No. V-2 – The FE-PA companies do not perform studies which compare the costs for affiliate services with the costs that would be incurred if such services were outsourced.**

**Current Review** - FirstEnergy stated that while cost owners may not directly compare their costs to that of using outside vendors, they have processes in place to ensure services provided are of high quality and competitively priced. FirstEnergy continued by stating that it uses its annual budgeting process to ensure that the services provided to its affiliates are cost competitive, and that FirstEnergy’s cost structure is continually reviewed by executive management, requiring cost owners to justify that the level of services is high quality and the associated costs are competitive. This review requires cost center owners to review all services and costs, with a focus on ensuring that the costs of affiliate services, including labor costs, such as wages and benefits, and costs other than labor, such as contractor costs, are competitive.

Cost center owners review their headcount and labor costs by working with FirstEnergy’s Human Resources on the competitiveness of employee wages and benefits. For the labor component of costs (i.e., wages and benefits), Human Resources is responsible for ensuring that the wages and benefits provided to employees are competitive and in accordance with the compensation policy as set forth by FirstEnergy’s Board of Directors. This requires benchmarking studies and comparisons of wages and benefits across the utility industry, as well as other industries. For other than labor costs (i.e., contractor costs), FirstEnergy’s Supply Chain uses a competitive bidding process as its preferred method of sourcing materials, equipment, and services. The process of soliciting bids ensures that FirstEnergy executive management can assess current market costs and the level and quality of services to be provided as part of its routine vendor selection process.

In addition to these processes and the annual budget review, actual costs are reviewed monthly as compared to the budget and the most recent forecast. FirstEnergy management reviews results, including the budgeting and forecasting process, through a cloud-based reporting solution. It is a common database with predefined/standard reports developed to analyze detailed actual, budgeting and forecasting information and ensures each employee with approved access views the same information. These cloud-based reports include, but are not limited to, Balance Sheets, Income Statements, Cash Flow Statements, Labor, Headcount, Cost Owner, etc.

The cost of services provided to each of the FE-PA companies by its affiliates should be periodically evaluated (e.g., every three years) to assure that such services are high quality, cost-competitive services. These studies would confirm the cost‑competitiveness of centralized corporate functions as compared to outsourcing these functions. Without conducting periodic cost/benefit reviews, FirstEnergy cannot sufficiently demonstrate that the centralized services received from affiliates were of sufficient quality and cost-competitive with outsourcing options. FirstEnergy relies on the processes described above to determine the cost-competitiveness of affiliate services; however, the reliance on Human Resources to ensure wages and benefits provided to employees are competitive is not the same as determining that the costs of providing specific services internally are competitive compared to market for the same service.

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

**VI. FINANCIAL MANAGEMENT**

**Background** – As part of normal business activities, the FE-PA companies conduct business with FirstEnergy and its subsidiaries, including FirstEnergy Service Company (FESC), which provides various administrative and general services for the FE-PA companies and other affiliated companies. The Finance organization is part of FESC. The 2014 Focused Management and Operations Audit of the FE-PA companies examined the Financial Management function, which included a review of short-term and long-term financing, the accounting organization and the extent of automation used in the accounting system, the internal audit process, cash management, the capital and O&M budgeting process, dividend policies, and the funding status of the pension plan. The PUC auditors issued one recommendation in the Financial Management chapter and rated the functional area as needing minor improvement. In this chapter, one prior recommendation and one prior situation is reviewed and one follow‑up finding and no follow-up recommendation is presented.

**Finding No. VI-1**

**Prior Situation** – As of the last audit, the FE-PA companies did not have documented internal dividend policies. Although relevant factors were considered in determining dividend payments to the parent, there was no written documentation related to dividend policies for the FE-PA companies and its parent, FirstEnergy, or for any of FirstEnergy’s other subsidiaries. Therefore, no expressed representation existed as to what to expect about the use of funds for future dividend payments. Dividends paid, net income and the dividend payout ratio for the FE-PA companies for the years 2008 through 2013 are shown in Exhibit VI-1.

Both the 2007 Management Audit and 2011 Management Efficiency Investigation (MEI) identified some of these high dividend payments and recommended that the FE‑PA companies provide the Pennsylvania Public Utility Commission (PUC or Commission) with advanced notice and explanation of the circumstances warranting an annual dividend payment exceeding 85% of net income. The FE-PA companies rejected these recommendations in both the 2007 Management Audit and 2011 MEI as part of their Implementation Plan submissions.

After the release of the 2011 MEI report and associated FE-PA companies Implementation Plan, the Commission issued a Final Order (entered February 16, 2012 at Docket Nos. D-2009-2143263, D-2009-2143264, and D‑2009-2143265) that indicated the PUC has an obligation to ensure that a public utility’s dividend practices do not harm service or reliability. Therefore, the Commission directed the FE-PA companies to provide the PUC with at least 30 days advanced notice and explanation of the circumstances that warranted annual dividend payments exceeding 85% of net income. The Commission Order also required the FE‑PA companies to submit annual Progress Reports on their implementation efforts until the commencement of the next Focused Management and Operations Audit.

**Exhibit VI – 1**

**FirstEnergy Pennsylvania Companies**

**Dividends Paid, Net Income, and Dividend Payout Ratio**

**For the Years 2008 through 2013**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Met-Ed** | **2008** | **2009** | **2010** | **2011** | **2012\*** | **2013** | **Total** |
| Dividends Paid ($ 000) | $0 | $0 | $30,000 | $25,000 | $45,000 | $0 | $100,000 |
| Net Income ($ 000) | $88,033 | $65,738 | $69,613 | $94,993 | $73,848 | $84,571 | $476,796 |
| Dividend Payout Ratio | 0% | 0% | 43% | 26% | 61% | 0% | 21% |
|  |  |  |  |  |  |  |  |
| **Penelec** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **Total** |
| Dividends Paid ($ 000) | $70,000 | $50,000 | $90,000 | $70,000 | $75,000 | $0 | $355,000 |
| Net Income ($ 000) | $88,170 | $74,995 | $73,593 | $96,331 | $79,464 | $90,476 | $503,029 |
| Dividend Payout Ratio | 79% | 67% | 122% | 73% | 94% | 0% | 71% |
|  |  |  |  |  |  |  |  |
| **Penn Power** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **Total** |
| Dividends Paid ($ 000) | $0 | $50,000 | $70,000 | $15,000 | $0 | $0 | $135,000 |
| Net Income ($ 000) | $23,194 | $22,370 | $26,428 | $22,475 | $20,767 | $20,703 | $135,937 |
| Dividend Payout Ratio | 0% | 224% | 265% | 67% | 0% | 0% | 99% |
|  |  |  |  |  |  |  |  |
| **West Penn Power** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **Total** |
| Dividends Paid ($ 000) | $35,324 | $35,081 | $60,173 | $40,000 | $20,000 | $75,000 | $265,578 |
| Net Income ($ 000) | $45,053 | $61,409 | $74,600 | $90,712 | $94,822 | $93,535 | $460,131 |
| Dividend Payout Ratio | 78% | 57% | 81% | 44% | 21% | 80% | 58% |

\* - Dividends paid in 2012 by Met-Ed and Penelec represent cash dividends as a return of capital (i.e., distribution drawn from paid-in capital rather from retained earnings).

Source: 2014 Management Audit Exhibit VI-4

Per the Commission Order, the FE-PA companies submitted annual Progress Reports. In the Progress Report for the calendar year 2012, dated July 1, 2013, the FE‑PA companies reported the dividend payout ratios for each of the FE-PA companies for the period February 16, 2012 through December 31, 2012. The FE-PA companies made this distinction as the period after which the Commission Order was issued. The FE-PA companies also indicated that Penelec issued dividends of approximately $75 million in January of 2012 before the Commission Order was issued. This dividend payment equated to 94% of Penelec’s net income. In 2012, the other FE-PA companies did not issue any dividends in excess of 85 percent of net income. Likewise, in 2013, the FE-PA companies have not issued dividends in excess of 85% of net income.

In general, it is not a sound business practice to pay an annual dividend to a parent company that is more than 85% of the utility’s net income on a consistent or long-term basis. Many regulated utilities have established an internal dividend payout ratio of 75% to 85% of net income as a reasonable target. However, there may be situations when higher than normal dividends are warranted for a particular period/year. As an example, the auditors noted that positioning Penn Power’s regulatory capital structure closer to a targeted range of 45% to 55% equity was one of the key factors for its 2010 dividend as it reduced its equity from approximately 68% to 60%. The auditors stated that a formal written dividend policy providing the framework for determination of dividends, which is consistent with regulatory practices, should be established and formally documented for each of the FE-PA companies. The formal dividend policy should outline the policy’s purpose and scope, identify responsibility for the policy, and identify financial requirements, restrictions, and procedural guidelines for determining dividend amounts as well as a target range. It should also include any steps required to deviate from this range.

**Prior Recommendation** – Establish and document a dividend policy for each of the FE-PA companies and ensure that advanced notice and explanations are submitted to the Commission prior to making future dividend payments in excess of 85% of net income.

**Follow-up Finding and Conclusion No. VI-1 – A dividend policy has been established for each of the FE-PA companies.**

**Current Review** - A separate dividend policy was established for each for the FE-PA companies. The policies were approved by the Board of Directors of each of the FE‑PA companies on January 12, 2016. Each policy describes the dividend practice in place, roles and responsibilities, and identifies restrictions and limitations. Factors considered include applicable corporate governance and compliance documents, existing financial agreements and indentures, company performance, financial metrics, authorized equity capitalization for rate-making purposes, and credit ratings. Dividends may be paid out of retained earnings or, with Federal Energy Regulatory Commission (FERC) authorization, other equity capital (return of capital). For example, the West Penn Power Dividend Policy describes the Process Overview (starting with the Assistant Corporate Secretary initiating the dividend review), Roles and Responsibilities (of the Assistant Corporate Secretary, Treasurer, Legal Counsel, PA Rates, Controller, Chief Financial Officer, and Board of Directors), Debt to Capitalization Ratio, and Certain Defined Terms.

Dividends paid, net income, and the dividend payout ratio for each of the FE-PA companies for 2014-2016 are shown in Exhibit VI-2. The other FE-PA companies have dividend policies which are similar to West Penn Power’s dividend policy. For the period 2014-2016, the total dividend payout ratio ranged from a low of 34.85% for Penn Power to a high of 70.30% for West Penn Power. The dividend payout ratio for each of the FE‑PA companies did not exceed 85% in any one year. Therefore, no advance notices and explanations were necessary, or submitted to the Commission during this period.

**Exhibit VI – 2**

**FirstEnergy Pennsylvania Companies**

**Dividends Paid, Net Income, and Dividend Payout Ratio**

**For the Years 2014 through 2016**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2014** |  | **2015** |  | **2016** |  | **Total** |
| **Met-Ed** |  |  |  |  |  |  |  |
| Dividends Paid | $25,000,000 |  | $45,000,000 |  | $65,000,000 |  | $135,000,000 |
| Net Income | $78,959,550 |  | $83,063,260 |  | $95,521,844 |  | $257,544,654 |
| Dividend Payout Ratio | 31.66% |  | 54.18% |  | 68.05% |  | 52.42% |
|  |  |  |  |  |  |  |  |
| **Penelec** |  |  |  |  |  |  |  |
| Dividends Paid | $0 |  | $60,000,000 |  | $60,000,000 |  | $120,000,000 |
| Net Income | $66,836,260 |  | $85,079,665 |  | $93,682,749 |  | $245,598,674 |
| Dividend Payout Ratio | 0.00% |  | 70.52% |  | 64.05% |  | 48.86% |
|  |  |  |  |  |  |  |  |
| **Penn Power** |  |  |  |  |  |  |  |
| Dividends Paid | $10,000,000 |  | $0 |  | $15,000,000 |  | $25,000,000 |
| Net Income | $22,610,237 |  | $24,127,698 |  | $24,995,899 |  | $71,733,834 |
| Dividend Payout Ratio | 44.23% |  | 0.00% |  | 60.01% |  | 34.85% |
|  |  |  |  |  |  |  |  |
| **West Penn Power** |  |  |  |  |  |  |  |
| Dividends Paid | $75,000,000 |  | $75,000,000 |  | $95,000,000 |  | $245,000,000 |
| Net Income | $121,103,373 |  | $107,020,549 |  | $120,403,241 |  | $348,527,163 |
| Dividend Payout Ratio | 61.93% |  | 70.08% |  | 78.90% |  | 70.30% |

Source: Data Request No. FM-01

**Follow-up Recommendation – None**

**VII. ELECTRIC OPERATIONS**

**Background** – The 2014 Focused Management and Operations Audit of the FE-PA companies examined the Electric Operations function, which included a review of emergency operations, vegetation management, system reliability, maintenance policies and procedures, staffing levels, system planning, etc. Electric transmission and distribution operations functions for the FE-PA companies are performed by various personnel from FirstEnergy, FirstEnergy Service Company (FESC), and each of the FE‑PA companies. The PUC auditors issued six recommendations in the Electric Operations chapter and rated this functional area as needing significant improvement. In this chapter, six prior recommendations and six prior situations are reviewed and six follow‑up findings and six follow-up recommendations are presented.

**Finding No. VII-1**

**Prior Situation** – The Electricity Generation Customer Choice and Competition Act (Act), 1996, Dec. 3, P.L. 802, No. 138 § 4, became effective January 1, 1997. The Act amends Title 66 of the Pennsylvania Consolidated Statutes (“Public Utility Code” or “Code”) by adding Chapter 28 to establish standards and procedures to create direct access by retail customers to the competitive market for the generation of electricity, while maintaining the safety and reliability of the electric system. More, specifically, at 66 Pa. C.S. § 2802(12), the Commission was given a legislative mandate to ensure that levels of reliability that were present prior to the restructuring of the electric utility industry would continue in the new competitive markets.

In response to this legislative mandate, the Commission adopted a Final Rulemaking Order on April 23, 1998, at Docket No. L-00970120, setting forth various reporting requirements designed to ensure the continuing safety, adequacy and reliability of the transmission and distribution of electricity in the Commonwealth (see 52 Pa. Code §§ 57.191-57.197). The Final Rulemaking Order acknowledged that the Commission could reevaluate its monitoring efforts later as deemed appropriate. This reference is below:

Pa. Code § 57.194. Distribution system reliability.

(e) An EDC shall design and maintain procedures to achieve the reliability performance benchmarks and minimum performance standards established by the Commission.

The Amended Reliability Benchmarks and Standards for the Electric Distribution Companies at Docket No. M-00991220 issued May 7, 2004, changed the measures for each reliability index to the current 12-month standard, 36-month standard, and benchmark. The benchmark is the value that the EDC should strive for whereas the respective standards are the minimum acceptable performance. Although overall system performance trends that fall in the range between the benchmark and the standard will not be subject to compliance enforcement, the Commission will keep EDCs whose performance is within the standard, but trending away from the benchmark, under review as a precautionary measure. Reliability performance benchmarks were based upon the five-year average of reported performance for each EDC for the period 1994 through1998. Only major events were excluded from this reported performance. In general, major events are service interruptions affecting at least 10% of the customers in an EDC’s service territory during an event that lasts five minutes or greater in duration. Benchmark performance represents the historical reliability performance of each EDC prior to the Act and the restructuring of the electric utility industry in Pennsylvania.

The definitions of the three reliability indices monitored by the Commission are as follows (definitions from the Institute of Electrical and Electronics Engineers or IEEE):

1. System Average Interruption Frequency Index (SAIFI)

*Definition (IEEE P1366): The system average interruption frequency index calculates how often the average customer experiences a sustained interruption over a predefined period of time.*

*Mathematically:*

1. Customer Average Interruption Duration Index (CAIDI)

*Definition (IEEE P1366): CAIDI represents the average time required to restore service.*

*Mathematically:*

1. System Average Interruption Duration Index (SAIDI)

*Definition (IEEE P1366): This index calculates the total duration of*

*interruptions for the average customer during a predefined period of*

*time.*

*Mathematically:*

SAIDI is the mathematical product of SAIFI and CAIDI.

**or**

Met-Ed was the only FE-PA company that met all its specific reliability standards and benchmarks for the year under examination (2013) at the time of the last audit’s fieldwork, and several preceding years. Penelec, Penn Power, and West Penn Power did not meet the minimum standards for at least one of the reliability metrics (some more than one) in 2013 and at times in the years leading up to 2013.

On October 25, 2010, a Joint Petition for Partial Settlement (2010 Settlement) was filed regarding the Allegheny Energy/First Energy Corporation (FirstEnergy) acquisition which stated that West Penn Power was obligated to meet a three-year average for Customer Average Interruption Average Duration Index (CAIDI) of 172 minutes and System Average Interruption Duration Index (SAIDI) of 198 minutes by 2016. At that time, West Penn Power’s reliability metrics did not appear to be trending towards this goal.

Exhibit VII-1 displays reliability performance for 2013 for the FE-PA companies and Exhibit VII-2 shows which minimum standards were not met in 2013 and the preceding years (2009 through 2013). To address reliability issues, each of the FE-PA companies had their own strategies involving capital investment, inspection and maintenance, and targeted tree trimming to be implemented for its unique circumstances.

**Exhibit VII – 1**

**FirstEnergy Pennsylvania Companies**

**Reliability Performance**

**For the Year 2013**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | **Met-Ed** | **Penelec** | **Penn Power** | **West Penn Power** |
| SAIFI | Benchmark | 1.15 | 1.26 | 1.12 | 1.05 |
| 12 Month Standard | 1.38 | 1.52 | 1.34 | 1.26 |
| 12 Month Actual Performance | 1.09 | 1.48 | **1.35** | 1.21 |
| 36 Month Standard | 1.27 | 1.39 | 1.23 | 1.16 |
| 36 Month Actual Performance | 1.20 | **1.43** | 1.18 | **1.23** |
| CAIDI | Benchmark | 117 | 117 | 101 | 170 |
| 12 Month Standard | 140 | 141 | 121 | 204 |
| 12 Month Actual Performance | 105 | 117 | **140** | 183 |
| 36 Month Standard | 129 | 129 | 111 | 187 |
| 36 Month Actual Performance | 114 | **141** | **131** | 187 |
| SAIDI | Benchmark | 135 | 148 | 113 | 179 |
| 12 Month Standard | 194 | 213 | 162 | 257 |
| 12 Month Actual Performance | 115 | 174 | **188** | 222 |
| 36 Month Standard | 163 | 179 | 136 | 217 |
| 36 Month Actual Performance | 137 | **200** | **155** | **225** |

Bold, red numbers indicate the index was not met.

Source: 2014 Management Audit Exhibit VII-8.

**Exhibit VII – 2**

**FirstEnergy Pennsylvania Companies**

**Reliability Performance Status**

**For the Years 2009 through 2013**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Company** | **Metric** | **Metric Did Not Meet Standard (2013)** | **Metric Has**  **Met Standards**  **At Times (2009-2013)** | **Metric Met Standard**  **Every Year (2009 - 2013)** |
| Met-Ed | 12 Month SAIFI |  | **X** |  |
| 36 Month SAIFI |  | **X** |  |
| 12 Month CAIDI |  |  | **X** |
| 36 Month CAIDI |  |  | **X** |
| 12 Month SAIDI |  |  | **X** |
| 36 Month SAIDI |  |  | **X** |
| Penelec | 12 Month SAIFI |  |  | **X** |
| 36 Month SAIFI | **X** |  |  |
| 12 Month CAIDI |  | **X** |  |
| 36 Month CAIDI | **X** |  |  |
| 12 Month SAIDI |  | **X** |  |
| 36 Month SAIDI | **X** |  |  |
| Penn Power | 12 Month SAIFI | **X** |  |  |
| 36 Month SAIFI |  |  | **X** |
| 12 Month CAIDI | **X** |  |  |
| 36 Month CAIDI | **X** |  |  |
| 12 Month SAIDI | **X** |  |  |
| 36 Month SAIDI | **X** |  |  |
| West Penn Power | 12 Month SAIFI |  | **X** |  |
| 36 Month SAIFI | **X** |  |  |
| 12 Month CAIDI |  | **X** |  |
| 36 Month CAIDI |  | **X** |  |
| 12 Month SAIDI |  |  | **X** |
| 36 Month SAIDI | **X** |  |  |

Source: 2014 Management Audit Exhibits VII-9 through VII-16 and Auditor Analysis.

The auditors believed that not only did the FE-PA companies need to invest in capital projects and enhanced reliability strategies but there were also other issues which affected each distribution companies’ reliability, including staffing and retirement issues (see Follow-Up Finding and Conclusion No. VII-2), call out acceptance and high individual overtime (see Follow-Up Finding and Conclusion No. VII-3), repeated worst performing circuits (see Follow-Up Finding and Conclusion No. VII-4), and damage prevention issues (see Follow-Up Finding and Conclusion No. VII‑6).

**Prior Recommendation** – Improve electric reliability performance at Penelec and Penn Power to achieve, at a minimum, both 12 and 36-month reliability standards and strive to achieve benchmark performance; and implement specific measures for West Penn Power to meet the reliability provisions of the 2010 Joint Petition.

**Follow-up Finding and Conclusion No. VII-1** – **The FE-PA companies have not consistently met all reliability standards since the management audit.**

**Current Review –** Exhibit VII-3 displays the reliability benchmarks, standards, and performance for each of the companies from 2013 to 2017 with highlighted areas showing performance that did not meet the minimum standards. All of the FE-PA companies had reliability performance that did not meet one of the minimum reliability standards in 2017 and for some companies, more than one of the minimum reliability standards were not met at times since 2014. Because of this, the FE-PA companies are still not consistently meeting the minimum standards as mandated in Pa. Code § 57.194, and therefore are not in compliance with the Electricity Generation Customer Choice and Competition Act. It should be noted that West Penn Power met the reliability provisions of the 2010 Settlement by achieving a three-year average by 2016 for CAIDI of 146 (requirement was 172 minutes) and SAIDI of 159 (requirement was 198 minutes).

**Exhibit VII – 3**

**FirstEnergy Pennsylvania Companies**

**Reliability Performance**

**For the Years 2013 through 2017**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Company** | **SAIFI Benchmark** | **SAIFI**  **12 Month Standard** | **SAIFI**  **36 Month Standard** |  | **2013** | | **2014** | | **2015** | | | **2016** | | **2017** | |
|  | **12**  **Mo.** | **36**  **Mo.** | **12**  **Mo.** | **36**  **Mo.** | **12**  **Mo.** | **36**  **Mo.** | | **12**  **Mo.** | **36**  **Mo.** | **12**  **Mo.** | **36**  **Mo.** |
| **Met-Ed** | 1.15 | 1.38 | 1.27 |  | 1.09 | 1.20 | 1.11 | 1.16 | 1.19 | 1.13 | | **1.44** | 1.25 | **1.47** | **1.37** |
| **Penelec** | 1.26 | 1.52 | 1.39 |  | 1.48 | **1.43** | **1.55** | **1.48** | 1.36 | **1.46** | | 1.43 | **1.45** | **1.73** | **1.51** |
| **Penn Power** | 1.12 | 1.34 | 1.23 |  | **1.35** | 1.18 | 1.11 | 1.21 | 1.14 | 1.20 | | 1.09 | 1.11 | 1.06 | 1.10 |
| **West Penn Power** | 1.05 | 1.26 | 1.16 |  | 1.21 | **1.23** | 1.02 | 1.10 | 1.17 | 1.13 | | 1.08 | 1.09 | **1.29** | **1.18** |
| **Company** | **CAIDI Benchmark** | **CAIDI**  **12 Month Standard** | **CAIDI**  **36 Month Standard** |  | **2013** | | **2014** | | **2015** | | | **2016** | | **2017** | |
|  | **12**  **Mo.** | **36**  **Mo.** | **12 Mo.** | **36 Mo.** | **12 Mo.** | **36 Mo.** | | **12 Mo.** | **36 Mo.** | **12 Mo.** | **36 Mo.** |
| **Met-Ed** | 117 | 140 | 129 |  | 105 | 114 | 128 | 118 | 113 | 115 | | 124 | 122 | **147** | 128 |
| **Penelec** | 117 | 141 | 129 |  | 117 | **141** | 118 | 124 | 140 | 125 | | 120 | 126 | 138 | **133** |
| **Penn Power** | 101 | 121 | 111 |  | **140** | **131** | 106 | **120** | 100 | **115** | | 95 | 100 | **150** | **115** |
| **West Penn Power** | 170 | 204 | 187 |  | 183 | 187 | 137 | 182 | 154 | 158 | | 147 | 146 | 166 | 155 |
| **Company** | **SAIDI Benchmark** | **SAIDI**  **12 Month Standard** | **SAIDI**  **36 Month Standard** |  | **2013** | | **2014** | | **2015** | | | **2016** | | **2017** | |
|  | **12**  **Mo.** | **36**  **Mo.** | **12 Mo.** | **36 Mo.** | **12 Mo.** | **36 Mo.** | | **12 Mo.** | **36 Mo.** | **12 Mo.** | **36 Mo.** |
| **Met-Ed** | **135** | **194** | **163** |  | **115** | **137** | **141** | **137** | **136** | **131** | | **178** | **152** | **217** | **177** |
| **Penelec** | 148 | 213 | 179 |  | 174 | **200** | 183 | **184** | 191 | **183** | | 171 | **182** | **239** | **200** |
| **Penn Power** | 113 | 162 | 136 |  | **188** | **155** | 118 | **146** | 114 | **140** | | 104 | 112 | 160 | 126 |
| **West Penn Power** | 179 | 257 | 217 |  | 222 | **225** | 139 | 201 | 179 | 180 | | 159 | 159 | 214 | 184 |
| **Highlighting indicates not meeting the minimum reliability standards** | | | | | | | | |  | |

Source: Annual Reliability Reports and Data Request TD-23

As part of the March 30, 2015 Commission Order (Order), FirstEnergy was directed to prepare and file a revised implementation plan to the 2014 Management Audit. The Order included requests for additional information to specific findings which included issues with reliability, workforce planning (Follow-Up Finding and Conclusion No. VII-2), emergency call-out acceptance and individual overtime (Follow‑Up Finding and Conclusion No. VII-3), worst performing circuits (Follow-Up Finding and Conclusion No. VII-4), damage prevention (Follow-Up Finding and Conclusion No. VII-5), and priority 3 repairs for the transmission system (Follow-Up Finding and Conclusion No. VII-6).

As part of this Management Efficiency Investigation (MEI), the auditors included a review of the enhanced detailed implementation plans to address the Order for all six areas. For example, to address these enhanced reliability related issues, the FE-PA companies have stated that they are continuing investments into the system as detailed in the periodic filings with the Commission’s Bureau of Technical Utility Services (TUS) regarding Corrective Action Plans, Reliability Plans, Worst Performing Circuit Plans (Follow-Up Finding and Conclusion No. VII-4), and the Long-Term Infrastructure Improvement Plans. These efforts include additional vegetation work, further segmentation and automation of the system, reconducting distribution circuits, adding substations for alternate feeds in some areas, adaptive relaying, and transmission upgrades.

The FE-PA companies should continue to periodically submit details for reliability analysis and planning to the Commission with TUS’s review and approval of planned system improvements or adjustments to maintenance schedules. Additionally, the companies should also improve upon on other related activities which relate to reliability such as workforce planning (Follow-Up Finding and Conclusion No. VII-2), consider additional shifts (Follow-Up Finding and Conclusion No. VII-3) and address the worst performance circuits (Follow-Up Finding and Conclusion No. VII-4).

**Follow-up Recommendation** – **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.**

**Finding No. VII-2**

**Prior Situation** – Based upon high overtime levels and the number of employees eligible for retirement, the FE-PA companies did not appear to have sufficient staffing as of the last audit. Each of the companies had workforce planning strategies that incorporated 15% planned overtime annually, but specific departments across the four companies’ territories often had well over 15% planned overtime for the department, with the overwhelming majority of these departments being craft workers. From 2009 to 2013, there were annually 39 to 65 entire departments across the FE-PA companies that averaged over 15% overtime, with some departments getting as high as 38%.[[2]](#footnote-2) When individual overtime was reviewed, it was even more excessive (See Follow-Up Finding and Conclusion No. VII-3). Also, among the FE-PA companies, approximately 40% of craft workers were either eligible for retirement or would be eligible within five years. Based on these factors, the auditors recommended a staffing study be performed to account and prepare for future retirements, and to determine the proper staffing levels of craft workers to reduce planned overtime to the target level of 15% and ensure proper staffing in the future.

**Prior Recommendation** – Conduct a staffing study accounting for future retirements to determine the proper staffing levels of craft workers to reduce overtime to the target level of 15% and improve reliability.

**Follow-up Finding and Conclusion No. VII-2** – **The staffing study conducted by the FE-PA companies did not include all aspects required for a thorough review of workforce needs.**

**Current Review** – In 2016, FirstEnergy conducted a staffing study to assess the adequacy of staffing levels at each of the FE-PA companies. The study concluded that the FE-PA companies were adequately staffed based on current and planned incoming hires. After reviewing the staffing study, the auditors felt that the FE-PA companies were adequately planning for retirements (in a sense that the workforce numbers would not be decreasing), but the auditors do not believe the staffing study accurately estimated all workforce needs due to the following:

* The Order requested that FirstEnergy undertake a ten-year historical review to determine how much excessive overtime and delinquent work flow could be attributable to major storms and mutual assistance. However, FirstEnergy did not use ten years of historic storm data in the 2016 staffing study reportedly due to inaccurate older storm data. Furthermore, even for the recent data that was used and deemed more accurate, FirstEnergy did not include historic storm estimations for storm events that were deemed irregular. For instance, if there was a significant snow storm or remnants of a hurricane in previous years which required emergency response, this was excluded from the historic storm analysis therefore reducing the anticipated workforce needs.
* As part of the analysis, FirstEnergy used an estimated 15% planned overtime for each of the companies; however, this was for the whole company, not specifically just the craft workers. As part of the analysis, it was noted that reallocation of budgeted overtime between craft and non-craft workers could be shifted where needed while maintaining overall company-wide levels of 15%. (As a note, the FE-PA companies plan for 20% contractor use at a most and the rest of the workforce needs are to be met by FirstEnergy employees).

To support the auditors’ assertion that the 2016 staffing study did not adequately address the stated concerns from the management audit, the PUC auditors conducted the same review of staffing and overtime levels on the departments associated with field operations as was previously conducted during the management audit. In addition to a review of the field operations groups (namely the craftworkers which includes positions for line workers, substation workers, and transmission maintenance workers), the auditors included a review of all other support groups that were peripherally involved with field operations. The support groups included employees from asset management, claims, customer support, meter reading, meter services, garage, administration, dispatching, engineering, facility services, forestry, and human resources. This extended review was included to determine if relatively high overtime levels existed company-wide or was an isolated issue for the field operations groups.

A total of approximately 190 departments were reviewed. The majority of departments incurring overtime of at least 15% were in the field operations groups staffed with line workers. There was also a notable portion of departments staffed with substation workers and transmission maintenance that experienced high overtime levels, though not to the extent as the line workers. There were other departments that occasionally experienced overtime levels over 15% (e.g., garage workers, etc.), but not to a considerable extent.

Exhibit VII-4 shows the results of this analysis, displaying the number of departments with over 15% overtime at the FE-PA companies from 2014 to 2017, and the maximum overtime experienced by a department for that year. Annually, there were 46 to 56 departments that had overtime levels over 15% with at least one department over 30% every year for at least one of the FE-PA companies. The highest experienced overtime rate for a department in this timeframe was 39.3%. Overall the extremes of the highest overtime experienced by department has increased for Met-Ed (from 34% in 2012 to 37% in 2014), Penelec (from 38% in 2011 to 39% in 2014), and West Penn Power (from 33% in 2010 to 37% in 2016) from the management audit review to the current review and the average highs experienced for all four distribution companies increased as well (from 27% to 35% for Met-Ed, from 29% to 32% for Penelec, from 25% to 27% for Penn Power, and from 27% to 29% for West Penn Power).

**Exhibit VII – 4**

**FirstEnergy Pennsylvania Companies**

**Number of Field Operations Departments with Overtime Levels Exceeding 15% And the Maximum Overtime Level Experienced by a Department**

**For Years 2014 through 2017**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2014** | | **2015** | | **2016** | | **2017** | |
| No. of Departments Exceeding 15% Overtime | Maximum Overtime Level Experienced by a Department | No. of Departments Exceeding 15% Overtime | Maximum Overtime Level Experienced by a Department | No. of Departments Exceeding 15% Overtime | Maximum Overtime Level Experienced by a Department | No. of Departments Exceeding 15% Overtime | Maximum Overtime Level Experienced by a Department |
| Met-Ed | 8 | 36.8% | 8 | 32.7% | 11 | 32.5% | 12 | 34.9% |
| Penelec | 23 | 39.3% | 17 | 32.5% | 22 | 36.0% | 22 | 19.3% |
| Penn Power | 5 | 25.1% | 3 | 23.5% | 5 | 28.1% | 4 | 29.8% |
| West Penn Power | 20 | 26.0% | 18 | 28.4% | 18 | 36.7% | 16 | 25.5% |
| Total | 56 | 39.3% | 46 | 32.7% | 56 | 36.7% | 54 | 34.9% |

Source: Data Request TD-4, TD-14, and Auditor Analysis.

Although the number of departments with high overtime levels has not significantly changed, the number of employees eligible for retirement currently or in the next five years has decreased since the management audit. Met-Ed has the highest percentage of employees eligible for retirement currently or in the next five years at approximately 34%, which is higher than Penelec’s, Penn Power’s, and West Penn Power’s percentage of employees eligible of approximately 25%.

To properly address workforce planning, the auditors believe enhanced analysis should be conducted routinely. Planning should be based on a dedicated overtime allowance of 15% for craftworkers rather than the current practice of reallocating available overtime budgeted hours from other departments. The companies should continue 20% contractor use as a maximum. Additionally, ten years of historic storm data should be used as the basis for projected storm activity for the upcoming year with all storms included in the analysis except for those that can be excluded per 52 Pa. Code § 57.192. Finally, this analysis should be done for every service center at each of the FE-PA companies. It should include 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. The difference between the needed man-hours for expected work and the man‑hours available should be calculated for each service center. This will help determine if additional field operations personnel should be hired (i.e., if understaffed) or temporarily reassigned from other service centers (i.e., if overstaffed).

Due to the sensitive nature of the electric industry, field operations employees should not work excessive overtime. Excessive overtime for field operations employees creates increased potential for accidents and reduced work effectiveness. The FE-PA companies should conduct enhanced annual workforce planning with monthly monitoring and variance reporting and periodically submit the results of this monitoring to the Commission’s Bureau of Technical Utility Services for appraisement and coordination.

**Follow-up Recommendation** – **Enhance workforce planning and reporting to ensure adequate staffing and periodically report on staffing reviews with the** **PUC’s Bureau of Technical Utility Services.**

**Finding No. VII-3**

**Prior Situation** – In addition to the high overtime as discussed in Follow‑up Finding and Conclusion No. VII-2, the auditors observed that the FE-PA companies typically did not have equal distribution of overtime levels among their employees during emergency responses largely due to low call-out acceptance rates for the emergency responders. From 2009 to 2013, the call-out acceptance rates in some districts were consistently as low as 18% to 27%. Consequently, numerous employees frequently incurred very high overtime levels. During this timeframe, overtime levels peaked in 2012 in which 1,021 employees incurred overtime levels over 15%; 414 of those had overtime levels over 25%; 36 of those had overtime levels over 50%; five of those had overtime levels over 75% and of those one had an overtime level of 103%. Although the call-out procedures were different at each of the FE-PA companies, each of the union contracts had language that stated employees must respond to call-outs when requested.

**Prior Recommendation** – Initiate policies to enforce union contract provisions which require craft worker acceptance of emergency call outs.

**Follow-up Finding and Conclusion No. VII-3** – **Although some improvements have been achieved, service centers are still experiencing low call-out acceptance rates and high individual overtime levels.**

**Current Review** – In May 2015, management at each of the FE-PA companies initiated discussions with local union leadership to evaluate and discuss strategies and processes to streamline and improve call-out responses. Moreover, the parties planned to periodically review progress and enhance communications of expectations as needed. Although there were examples of this strategy being effective, this was not the case in all service centers. Exhibit VII-5 displays the overall call-out acceptance rates by each of the FE-PA companies from 2014 to 2017.

**Exhibit VII – 5**

**FirstEnergy Pennsylvania Companies**

**Average Call-Out Acceptance Rates**

**For the Years 2014 through 2017**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2014 | 2015 | 2016 | 2017 |
| Met-Ed | 44% | 37% | 41% | 40% |
| Penelec | 52% | 48% | 50% | 49% |
| Penn Power | 52% | 52% | 49% | 59% |
| West Penn Power | 23% | 20% | 18% | 17% |

Source: Data Request TD-7, TD-15, and Auditor Analysis.

Exhibit VII-6 displays the three worst call-out acceptance rates by service center for each of the FE-PA companies. Penn Power consistently has the best call-out acceptance performance among the FE-PA companies. At Penn Power, the Clark Service Center had the lowest call-out acceptance rates that ranged from 39% to 44% from 2014 to 2016. Within each of the FE-PA companies, each service center can choose how emergency calls are offered to craft workers (e.g., by seniority, rotating list, lowest overtime, etc.). Because the Clark Service Center had lower call-out performance than the other two service centers (Penn Power only has three service centers), management focused on raising the Clark Service Center’s call-out acceptance rate, achieving 52% in 2017. This was accomplished by establishing a local call-out agreement in 2016 for the Clark Service Center which permitted Penn Power to counsel employees with 20% acceptance rates or lower. Additionally, under this agreement, a rotating call-out crew of three people was required to respond to emergency call outs. This approach reduced the number of emergency call-outs requiring management to attempt to get craft workers to respond to a call. As a result, this reduces the number of call-outs that could be rejected and therefore increases response rates. Through negotiations and cooperation with the union in the service center most in need of improved response, Penn Power was able to raise this call-out rate within a year. Even though the Clark Service Center tends to have the lowest call‑out acceptance rate at Penn Power, this service center still had a higher response rate than the average response rate at Met-Ed, Penelec, or West Penn Power for 2017.

**Exhibit VII – 6**

**FirstEnergy Pennsylvania Companies**

**Lowest Call-Out Acceptance Rates by Service Center**

**For the Years 2014 through 2017**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  | | **2014** | | | **2015** | | | **2016** | | | **2017** | | |
| **Company** | | **Rank** | | **Service Center** | | **Call-Out Rate** | **Service Center** | | **Call-Out Rate** | **Service Center** | **Call-Out Rate** | | **Service Center** | **Call-Out Rate** | |
| Met-Ed | | 3rd Low | | Boyertown | | 34% | Reading | | 31% | Stroudsburg | 35% | | Reading | 35% | |
| 2nd Low | | Gettysburg | | 33% | Gettysburg | | 26% | Hamburg | 34% | | Dillsburg | 31% | |
| 1st Low | | Hamburg | | 27% | Stroudsburg | | 25% | Gettysburg | 29% | | Gettysburg | 23% | |
|  | |  | |  | |  |  | |  |  |  | |  |  | |
| Penelec | | 3rd Low | | Erie | | 38% | Tie - Altoona & Philipsburg | | 36% | Erie | 36% | | Erie | 35% | |
| 2nd Low | | Montrose | | 36% | Erie | | 35% | Philipsburg | 34% | | Altoona | 33% | |
| 1st Low | | Altoona | | 34% | Montrose | | 30% | Montrose | 26% | | Montrose | 31% | |
|  | |  | |  | |  |  | |  |  |  | |  |  | |
| Penn Power\* | | 3rd Low | | New Castle | | 63% | New Castle | | 64% | New Castle | 65% | | New Castle | 67% | |
| 2nd Low | | Cranberry | | 62% | Cranberry | | 56% | Cranberry | 53% | | Cranberry | 63% | |
| 1st Low | | Clark | | 41% | Clark | | 44% | Clark | 39% | | Clark | 52% | |
|  | |  | |  | |  |  | |  |  |  | |  |  | |
| West Penn Power | | 3rd Low | | St Marys | | 17% | Waynesboro | | 17% | Washington | 15% | | Charleroi | 14% | |
| 2nd Low | | Jeannette | | 15% | Jeannette | | 16% | Jefferson | 14% | | Jefferson | 13% | |
| 1st Low | | Washington | | 15% | Washington | | 16% | Waynesboro | 14% | | Waynesboro | 13% | |
|  |  | |  | |  | |  |  | |  | |  |  | |  | |
| \* There are only three service centers in Penn Power's territory | | | | | | | |  | |  | |  |  | |  | |

Source: Data Request TD-7, TD-15, and Auditor Analysis.

Ultimately, even though call-out acceptance rates can affect reliability performance (namely CAIDI), the auditors are most concerned about safety. There is a high potential for mental or physical exhaustion at higher overtime rates which is exacerbated by the high-risk nature of working around live electric circuits. As can be seen from Exhibits VII-7 through VII-10, there are still many occurrences of high individual overtime levels. Between 2014 and 2017, there were six occurrences of employees that had over 100% overtime. Of note, since 2015, Penelec has had only one employee over 50% overtime whereas Met-Ed and West Penn Power’s top ten overtimes since 2015 have all been greater than 50%.

**Exhibit VII – 7**

**Metropolitan Edison Company**

**Individual Overtime Levels**

**For the Years 2014 through 2017**



Source: Data Request TD-4, TD-14, and Auditor Analysis.

Although it is understandable that creating mandatory response rates can be difficult as some employees have extenuating circumstances (e.g., sick family members, child care, etc.), the FE-PA companies should investigate all potential improvements including response agreements to the extent possible with the union (e.g., the 2016 agreement at Penn Power’s Clark service center), a best practices review, and additional shift work. For example, the other FE-PA companies should institute best practices from Penn Power to raise their respective service center and individual call-out acceptance rates and best practices from Penelec to lower individual overtime. These successful call-out acceptance rates and lower individual overtime levels are likely a combination of call-out acceptance practices, staffing levels, and shift work strategies. The auditors advise that the companies conduct a cost/benefit analysis on additional shifts which should both reduce overtime and improve call-out response.

**Exhibit VII – 8**

**Pennsylvania Electric Company**

**Individual Overtime Levels**

**For the Years 2014 through 2017**



Source: Data Request TD-4, TD-14, and Auditor Analysis.

**Exhibit VII – 9**

**Pennsylvania Power Company**

**Individual Overtime Levels**

**For the Years 2014 through 2017**



Source: Data Request TD-4, TD-14, and Auditor Analysis*.*

**Exhibit VII – 10**

**West Penn Power Company**

**Individual Overtime Levels**

**For the Years 2014 through 2017**



Source: Data Request TD-4, TD-14, and Auditor Analysis.

**Follow-up Recommendation – 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.**

**Finding No. VII-4**

**Prior Situation** – As previously identified during both the 2007 management audit and subsequent 2011 management efficiency investigation, the FE-PA companies were ineffective in remediating some of its most problematic circuits resulting in certain circuits repeatedly appearing on the worst performing circuit (WPC) list during the 2013 management audit. The WPC list is produced to identify and remediate circuits for corrective action and is comprised of the 5% worst performing circuits.

The auditors believed that an effective remediation program should prevent circuits from frequently appearing on the WPC list. Upon a circuit appearing on the WPC list, it may be reasonable to expect it to appear again the next year as there has not been sufficient time to address all issues to remove this circuit from the WPC list. However, once addressed, this circuit should not reappear frequently on the WPC list.

Upon examination of the WPC lists, the auditors noted a total of 57 circuits among the FE-PA companies were on the WPC list for three or more of the five years for the period 2009 to 2013. The auditors suggested that the companies take the appropriate steps to ensure that circuits are not repeatedly appearing on the WPC list by taking corrective action in a timely and complete manner.

**Prior Recommendation** – Develop and implement remedial actions that effectively correct the deficiencies of circuits found on the worst performing circuits list such that the circuits do not re-appear on the list for several years.

**Follow-up Finding and Conclusion No. VII-4** – **Several circuits continue to appear on the worst performing circuits list for Met-Ed, Penelec and West Penn Power.**

**Current Review** – In addition to the auditors’ recommendations regarding WPC improvements, the previously mentioned Order also directed additional enhanced reporting of WPC improvements. As part of this enhanced reporting, the FE-PA companies provided additional capital and maintenance remediation work details and timelines for the circuits which qualified as WPCs to TUS. During the MEI, the FE-PA companies provided the auditors with details on the WPCs that have appeared on the quarterly reliability report for all four quarters of a calendar year. The WPCs from 2017 which appeared on all four quarterly reliability reports for a calendar year were reviewed along with recent WPC list history. This is displayed in Exhibit VII-11. Many of the current WPCs for Met-Ed and Penelec were also discussed in the 2013 management audit; notably, the Shawnee Substation Circuit 00895-3 from Met-Ed and the Warren South Substation Circuit 00220-41 from Penelec have annually appeared as a WPC every year from 2009 to 2017. Of note, Penn Power did not have any circuits that were frequently repeating on the WPC.

The customers on the repeating WPCs are consistently receiving the poorest reliability in the system. Many reliability measures have not been met in the past several years, and specifically more recently in 2017. Problem areas, such as the WPCs could contribute to higher reliability indices (see Follow-Up Finding and Conclusion No. VII-1). To eliminate repeating WPCs, the FE-PA companies should determine and utilize best practices from Penn Power for eliminating WPCs and should additionally continue to provide enhanced planning and reporting to TUS for review and acceptance of plans.

**Exhibit VII – 11**

**FirstEnergy Pennsylvania Companies**

**Circuits Appearing on the Quarterly Worst Performing Circuit List**

**for an Entire Year (Appearing All Four Times in a Year)**

**For the Years 2015 through 2017**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Met-Ed** | | **Year** | | |
| **Substation** | **Circuit** | **2015** | **2016** | **2017** |
| South Nazareth | 00809-3 |  |  |  |
| Bath | 00873-3 |  |  |  |
| Mountain | 00744-4 |  |  |  |
| Birdsboro | 00757-1 |  |  |  |
| Birchwood | 00624-3 |  |  |  |
| Swatara Hill | 00764-2 |  |  |  |
| Shawnee | 00895-3 |  |  |  |
|  |  |  |  |  |
| **Penelec** | | **Year** | | |
| **Substation** | **Circuit** | **2015** | **2016** | **2017** |
| Warren South | 00220-41 |  |  |  |
| Union City | 00206-43 |  |  |  |
| DuBois | 00137-23 |  |  |  |
| Tunkhannock | 00533-65 |  |  |  |
| Philipsburg | 00164-22 |  |  |  |
| Marienville | 00328-51 |  |  |  |
| Erie East | 00234-31 |  |  |  |
| Bradford South | 00106-42 |  |  |  |
| Tionesta Jct Sw Sta | 00498-51 |  |  |  |
| Blairsville East | 00081-13 |  |  |  |
|  |  |  |  |  |
| **West Penn Power** | | **Year** | | |
| **Substation** | **Circuit** | **2015** | **2016** | **2017** |
| Smith | Florence |  |  |  |
| Piney Fork | Stoltz |  |  |  |
| Westraver | Pittsburgh Coal |  |  |  |

Source: Quarterly Reliability Reports, Data Request TD-24, and Auditor Analysis

**Follow-up Recommendation – 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.**

**Finding No. VII-5**

**Prior Situation** – As of 2013, all damage related activities for the FE-PA companies, once discovered and reported by the distribution companies, were transferred to FirstEnergy’s Corporate and Energy Delivery Claims Management Department (Claims Department). The FE-PA companies had various aspects of a damage prevention plan in practice but did not have a formal comprehensive damage prevention program with detailed recordkeeping to properly measure the effectiveness of its efforts. For example, the Claims Department was able to provide the number of damages to facilities by year but were unable to provide the cause of the damages for 91% of the hits. Furthermore, although the Claims Department demanded financial restoration for these damages, the collections activity was unable to be accumulated in total, only on a case by case basis. The auditors stated that a formal Damage Prevention Plan should be developed in compliance with Pennsylvania One Call Act 287 – Underground Utility Line Protection Law.

**Prior Recommendation** – Establish a documented Damage Prevention Program to track and measure line hit incidents; recover damages for all line hit incidents; and to take proactive measures to mitigate future line hits.

**Follow-up Finding and Conclusion No. VII-5** – **FirstEnergy has developed a damage prevention plan but should take additional steps to make the plan more comprehensive.**

**Current Review** – In August 2015, a Damage Prevention Plan was completed by the Claims Department which the FE-PA companies utilize. A summary of the details of the plan is as follows:

* Best practices were established with other utilities, agencies, and stakeholders to the PA One Call System (POCS) Board of Directors in July 2015.
* A data collection and retention system for damage prevention (STARS system) was implemented in March 2016.
* The Damage Prevention Plan details the purpose of the plan as well as education and prevention criteria, web-based annual training for employees, and education and media communications for the public.
* The claims process is detailed via a reference to the Receivable Claims Processing Manual. The Claims Department will conduct annual training for staff.
* The ticket-screening software is detailed.
* Inspection and maintenance procedures related to damage prevention are referenced.
* Data tracking and analysis is detailed such as total hits, hits by district, hits by contractor, hits by cause, etc.
* Damage reimbursement and recovery is detailed such as collections by year, collections by contractor, etc.

The auditors believe that although a plan was developed, there should be additional details or practices in the plan that are not identified:

* The roles and responsibilities of the various employees involved in damage prevention are not detailed in the Damage Prevention Plan.
* Engineering Practices (EP) 11-098 Locating Underground Electric Facilities & One Call Guidelines exist, but there is no reference or hyperlink for these practices.
* Various handouts for customer and contractor installation specifications exist but are not referenced or hyperlinked. Several examples are EP11-150, Trenching & Backfilling of Underground Primary & Secondary; EP 11-200 Single-Phase Underground Residential Developments; EP 11-250 Three‑Phase Underground.
* The process for excavator identification and notification of repeat offenders was not detailed.
* There are no standards for mapping. For security reasons, FirstEnergy may not want the full scope of all mapping capabilities or information detailed in the plan; however, a reference should be detailed with the individual responsible for this function.

With many operational practices addressed in separate manuals but not fully referenced in the Damage Prevention Program, newer employees or employees who do not typically work with damage prevention would not be able to understand the manual in its entirety, leading to the potential for delays or errors in line marking, facility mapping, knowing or understanding proper procedures, etc., and these could contribute to future line hits.

**Follow-up Recommendation – 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.**

**Finding No. VII-6**

**Prior Situation** – Priority 3 (P3) repairs are transmission repairs for defects that do not create an immediate risk of a line outage and normally repaired or re-inspected within 12 months to determine if the defect has deteriorated to a Priority 2. (P2’s must be repaired within three months). Met-Ed and Penelec had an excessive backlog of P3 repairs as of December 2013 (note that Penn Power and West Penn Power did not have backlog issues). Met-Ed had a backlog of 581 P3 repairs while Penelec had a backlog of 1,985 P3 repairs. When this backlog was considered with the number of open P3 repairs (repairs that had not yet become one year old) and the rate of repair, it appeared that neither company was going to be able to overcome the backlog of P3 repairs that were needed without modifying their plans. This was reflected in the Executive Leadership Team Reports which detailed the two companies’ maintenance repairs were not progressing according to the goals established. In 2013, Met-Ed had a total of 1,363 P3 repairs that were either open or backlogged compared to a repair rate of 553. Although Met-Ed was making progress in reducing its P3 backlog, the auditors noted that it needed to continue its efforts to eliminate its current backlog. Penelec had a total of 4,471 P3 repairs that were either open or backlogged compared to a repair rate of 346. During most of the period examined, Penelec had only one internal transmission crew dedicated to working on the backlog. To reverse its P3 backlog trend, the auditors stated that Penelec would need to devote additional resources to be consistent with corporate and regulatory expectations.

**Prior Recommendation** – Implement and/or modify backlog reduction plans for Met-Ed and Penelec in order to effectively and efficiently reduce the number of overdue Priority 3 conditions.

**Follow-up Finding and Conclusion No. VII-6** – **Met-Ed and Penelec are on pace to eliminate P3 backlogs by the end of 2019.**

**Current Review** – Subsequent to the management audit, Met-Ed and Penelec developed five-year plans to address the P3 backlogs. This plan consisted of reducing the backlog over the 2015 to 2019 period by 10%,10%, 25%, 25%, and 30% each year, respectively, through additional transmission staffing. (Note that as time would pass, new P3 repairs would make the list and these would be addressed in addition to the backlog reduction plan). With this plan, Met-Ed and Penelec specifically targeted the highest potential P3 repairs in the earlier stages of the five-year plan (as these repairs tend to be more involved and take more time and effort), which resulted in a lower percentage of P3 repairs planned in the early stages of the five-year plan. At the end of field work for the MEI in April 2018, most of the backlogged repairs were minor in nature, but still within the P3 definition. Both Met-Ed and Penelec expected to eliminate the P3 backlogs before the end of 2019. Exhibits VII-12 and VII-13 detail the progress of P3 backlogged repairs against the original planned schedule as detailed in their Implementation Plan. Both Met-Ed and Penelec are ahead of their planned repairs as of the end of 2017.

**Exhibit VII – 12**

**Metropolitan Edison Company**

**Priority 3 Repairs Compared to Implementation Plan Estimated End Dates**

**As of December 2017**

****

Source: FirstEnergy 2015 Implementation Plan, Data Request TD-22, and Auditor Analysis

**Exhibit VII – 13**

**Pennsylvania Electric Company**

**Priority 3 Repairs Compared to Implementation Plan Estimated End Dates**

**As of December 2017**



Source: FirstEnergy 2015 Implementation Plan, Data Request TD-22, and Auditor Analysis

Both Met-Ed and Penelec hired additional transmission maintenance workers to reduce the P3 backlogs. Once the backlogs have been reduced, the intent is to retain the same number of transmission maintenance workers to actively address transmission maintenance activities to prevent future backlog-related issues.

**Follow-up Recommendation** – **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.**

**VIII. EMERGENCY PREPAREDNESS**

**Background** – The 2014 Focused Management and Operations Audit of the FE-PA companies did not contain any recommendations in the Emergency Preparedness chapter. Although the PUC auditors rated this functional area as meeting the expected performance level, it was deemed prudent to perform an updated review of FE-PA companies’ compliance with PUC regulations at 52 Pa. Code § 101 (Chapter 101) regarding physical security, cyber security, emergency response, and business continuity plans as part of this audit. In this chapter, no additional findings or recommendations are present, but a summary of company practices and procedures are provided.

Effective June 2005, PUC Chapter 101 regulations require jurisdictional utilities to develop and maintain written physical security, cyber security, emergency response, and business continuity plans to protect infrastructure within the Commonwealth of Pennsylvania and ensure safe, continuous and reliable utility service. Along with the requirement to establish these “emergency preparedness” plans, a jurisdictional utility is required to annually file a Self Certification Form to the Commission documenting compliance with Chapter 101. This form, available on the PUC website, is comprised of 13 questions as shown in Exhibit VIII-1.

**Exhibit VIII – 1**

**Pennsylvania Public Utility Commission**

**Public Utility Security Planning and Readiness Self Certification Form**

|  |  |  |
| --- | --- | --- |
| **Item**  **No.** | **Classification** | **Response**  **(Yes–No–N/A\*)** |
| 1 | Does your company have a physical security plan? | 1. |
| 2 | Has your physical security plan been reviewed in the last year and updated as needed? | 2. |
| 3 | Is your physical security plan tested annually? | 3. |
| 4 | Does your company have a cyber security plan? | 4. |
| 5 | Has your cyber security plan been reviewed in the last year and updated as needed? | 5. |
| 6 | Is your cyber security plan tested annually? | 6. |
| 7 | Does your company have an emergency response plan? | 7. |
| 8 | Has your emergency response plan been reviewed in the last year and updated as needed? | 8. |
| 9 | Is your emergency response plan tested annually? | 9. |
| 10 | Does your company have a business continuity plan? | 10. |
| 11 | Does your business continuity plan have a section or annex addressing pandemics? | 11. |
| 12 | Has your business continuity plan been reviewed in the last year and updated as needed? | 12. |
| 13 | Is your business continuity plan tested annually? | 13. |

\* Attach a sheet with a brief explanation if N/A is supplied as a response to a question.

Source: Public Utility Security Planning and Readiness Self-Certification Form, as available on the PUC website at <http://www.puc.state.pa.us/general/onlineforms/pdf/Physical_Cyber_Security_Form.pdf>.

During our fieldwork, the auditors reviewed the most recent (i.e., 2016) Self Certification Forms submitted by FirstEnergy Corporation (FirstEnergy) on behalf of the FE-PA companies to determine the status of their responses. As discussed in the background section of Chapter I – Introduction, FirstEnergy’s Regulated Distribution business segment distributes electricity through FirstEnergy’s ten utility operating companies, which is also referred to as FirstEnergy Utilities (FEU). Met‑Ed, Penelec, Penn Power, and West Penn Power are the Pennsylvania operating companies within FEU. In addition, FirstEnergy Service Company (FESC) is a subsidiary of FirstEnergy that provides various corporate services to all affiliates, including the FE-PA companies. Our examination of the FE-PA companies’ emergency preparedness included a review of physical security plans, cyber security plans, emergency response plans, business continuity plans, and associated security measures. In addition, the auditors performed inspections at a sample of the FE-PA companies’ facilities.

Each of the plans are overseen and managed by various FirstEnergy and FESC groups and individuals to provide overarching support to the FE-PA companies. These groups oversee testing, reviewing, and updating their respective plan(s). The individuals and departments assigned to Physical Security, Emergency Response, Business Continuity, and Cyber Security plans are as follows:

* Physical Security Plan – Executive Director, Corporate Security (FESC) – implements security measure to protect personnel, FirstEnergy assets, visitors, property, facilities and equipment, and provide continuity of electric service.
* Cyber Security Plan – Director, Security and Infrastructure Operation (FESC) – ensures the protection of technology resources including electronic information, software, computers, network devices, or communication services used to create, transmit or store information.
* Emergency Response Plan(s) – Director, Emergency Preparedness (FESC) – defines the guidelines for all the common processes and procedures for which the FirstEnergy Companies conduct emergency preparedness, response and service restoration.
* Business Continuity Plan – Executive Director, Corporate Security (FESC) – in case of a business disruption or health emergency; the plan focuses on the continuation of critical business functions for a period after an emergency.

To constantly protect physical and cyber resources, the designated groups and individuals have created procedures to make certain FirstEnergy and the FE-PA companies operate in a safe, secure, and reliable environment. A major part in assuring plans are kept current is through performing multiple types of testing and trainings on an annual basis. Types of testing and trainings performed at FirstEnergy and the FE-PA companies are as follows:

* Structured Walkthrough – basic testing in a group setting to ensure critical personnel from all departments are familiar with the plan.
* Tabletop Drill – through a simulated event scenario, personnel administer recovery strategies, capture results in-order-to incorporate any “lessons learned” into subsequent versions of a plan.
* Functional Testing – testing though the relocation of personnel to another site (i.e., establish communications and coordination).
* Full-Scale Exercise – comprehensive testing of all or most of the plan; purpose is to simulate an actual event, including the same timeframe.
* System Operational Tests – testing of the current access system and associated alarms.
* Physical Tests – testing exercise involving recovery procedures for hardware and server devices.
* Media Backup – testing exercise to restore media backup data and file systems essential to hardware and server devices.
* Real-Life Event - an actual event is a valid testing of any plan; such as storm response, evacuation, power disruptions, and relocation to back up facilities.
* Cyber Security Awareness Training – employees, contractors and vendors with access to any information asset, must complete a web-based course on an annual basis; network access is deactivated if training has not been complete in the allotted time.

Due to the sensitive nature of the information reviewed, any specific information was not revealed in this report but rather the generalities of the information reviewed were summarized above.

**Conclusion**

**Current Review –** As previously mentioned, there were no prior findings and recommendations to review. Our examination of FirstEnergy and the FE-PA companies’ Emergency Preparedness included a review of the physical security plan, cyber security plan, emergency response plan(s) and business continuity plan, vulnerability assessment and all associated security measures. Based on our review of FirstEnergy and the FE-PA companies’ emergency preparedness efforts, no evidence came to our attention that would lead the auditors to conclude that the areas or plans reviewed were not being addressed adequately.

**Follow-up Finding and Recommendation – None**

**IX. MATERIALS MANAGEMENT**

**Background** – The 2014 Focused Management and Operations Audit of the FE-PA companies examined the Materials Management function, which included a review of corporate and regional materials management policies and procedures, purchasing, warehousing, inventory statistics, logistics and daily operations, etc. These functions are overseen by the FirstEnergy Service Company (FESC) Vice President of Supply Chain (utility sourcing) and the Director of Transmission and Distribution (T&D) Warehousing and Materials Management (physical warehousing) for the FE-PA companies. The PUC auditors issued one recommendation in the Materials Management chapter and rated this functional area as needing minor improvement. In this chapter, one prior recommendation and prior situation are reviewed and one follow-up finding and recommendation are presented.

**Finding No. IX-1**

**Prior Situation** – The FirstEnergy T&D Warehousing function went through significant changes during the period 2011 through 2013. Before the consolidation of warehouses into three centralized locales started in 2011, warehouses and inventory were independently maintained by each of the FE-PA companies. Consequently, the auditors did not trend inventory performance from 2009-2012 or prior to the warehouse consolidations as the data would not have been relevant or comparable to 2013. The 2013 calendar year was the first full year using the new warehouse configuration. Exhibit IX-1 shows the specific Costs of Goods (net issues), average annual inventory and calculated inventory turnover for each of the FE-PA companies in 2013. Additionally, the inventory performance of transformers and meters were excluded from turnover level calculations. These items were considered to be emergency stock that must be kept on hand at all times to ensure effective response in the case of emergencies.

**Exhibit IX – 1**

**FirstEnergy Pennsylvania Companies**

**Inventory Turnover Levels (Excluding Emergency Stock)**

**For the Year 2013**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Met-Ed** | **Penelec** | **Penn Power** | **West Penn** | **FE-PA Companies** |
| **Annual Issues ($)** | $ 10,814,020 | $ 11,249,894 | $ 2,670,281 | $ 11,700,565 | **$ 36,434,760** |
| **Average Inventory Balances** | $ 9,620,561 | $ 12,101,891 | $ 1,490,553 | $ 14,238,307 | **$ 37,451,312** |
| **Inventory Turnover Levels** | **1.12** | **0.93** | **1.79** | **0.82** | **0.97** |

Source: Exhibit IX-4 from the 2014 Focused Management and Operations Audit of FE-PA companies

As shown in Exhibit IX-1, inventory turnover for each of the FE-PA companies ranged from 0.82 to 1.79 for 2013, and 0.97 collectively. At this time, other utilities were achieving turnover levels upward of 2.0 turns. The auditors believed the FE-PA companies could reach similar inventory turnover performance by focusing on eliminating inventory balance on hand and establishing inventory goals based on a peer review. By achieving similar inventory turnover levels, the auditors estimated that the companies could realize a total one-time savings in inventory reduction of approximately $19.2 million and a total annual savings of approximately $1.9 million in reduced carrying costs.

**Prior Recommendation** – Establish annual inventory turnover goals to a minimum of 2.0 turns and strive to achieve improved inventory levels.

**Follow-up Finding and Conclusion No. IX-1 – Inventory turnover for the FE-PA companies has been improving, and FirstEnergy established turnover goals based on a survey of its peers.**

**Current Review** – FirstEnergy participates in several annual and periodic utility benchmarking surveys and studies. The studies gave FirstEnergy the opportunity to compare their performance in relative metrics against a panel of comparable utilities. A summary of three recently completed studies provided to the auditors to review are as follows:

* *Utility Purchasing Management Group (UPMG) Supply Chain Benchmarking Study* (2017) – included data from seven of the top ten utilities in the country; included inventory turnover rates as a basis for FirstEnergy to establish its goals.
* *Utility Materials Management Benchmarking Consortium (UMMBC)* *Warehousing and Inventory Performance Survey* (2015) – survey compiled by ScottMadden Management Consultants included 15 North American utilities; a total of 113 metrics was provided and/or calculated in the released survey.
* *Materials and Logistics Management Benchmarking (MLMB) Survey* (2016) – survey conducted by Public Service Gas and Electric Company; included eight utilities and covered demographics, inventory counting, material handling processes, hub and spoke structures, staffing, key measurements, technology, investment recovery, and additional topics.

|  |  |  |
| --- | --- | --- |
| **Exhibit IX – 2** | | |
| **FE-PA Companies** | | |
| **Inventory Goals for 2017** | | |
|  |  |  |
| **Threshold** | = | **1.00** |
| **2nd Quartile** | = | **1.45** (UPMG) |
| **1st Quartile** | = | **1.86** (UPMG) |
| **Stretch** | = | **2.00** (PUC) |
| Source: Data Request MM-11 | | |

As a result of participating in the UPMG study, FirstEnergy established a set of inventory turnover goals for the FE-PA companies in December 2016. The goals shown in Exhibit IX-2 were effective beginning January 2017. The 1st and 2nd Quartile goals were based on the results of the UPMG study and the Stretch goal is part of the PUC recommendation from the prior Management Audit.

Based upon findings from the studies, FirstEnergy decided to focus additional attention on reducing inventory balances. Annually, FirstEnergy eliminated approximately a third of the excess inventory over a three-year period to make certain they were not eliminating too much at once and creating any stockout situations which could impact service reliability. Exhibit IX-3 depicts the inventory balances of the FE-PA companies for the years 2014 through 2017. As detailed below, the FE-PA companies’ total inventory balances decreased from approximately $34.9 million in 2014 to approximately $29.0 million and $30.4 million in 2016 and 2017, respectively. Additionally, total annual issues increased from approximately $33.5 million to approximately $40.9 million and $43.0 million in 2016 and 2017, respectively resulting in the FE-PA companies’ collective turnover levels increasing from 0.96 in 2014, to 1.41 for the years 2016 and 2017.

**Exhibit IX – 3**

**FirstEnergy Pennsylvania Company**

**Inventory Turnover Statistics**

**For the Years 2014 through 2017**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **2014** | **2015** | **2016** | **2017** |
| **Met-Ed** | **Annual Issues ($)** | $9,160,076 | $10,678,126 | $10,390,331 | $11,556,800 |
| **Average Inventory Balances** | $9,684,002 | $9,023,105 | $8,736,059 | $9,659,460 |
| **Inventory Turnover Levels** | **0.95** | **1.18** | **1.19** | **1.20** |
|  |  |  |  |  |  |
| **Penelec** | **Annual Issues ($)** | $11,711,800 | $10,425,635 | $11,256,983 | $11,816,021 |
| **Average Inventory Balances** | $12,720,572 | $10,627,421 | $10,084,124 | $9,976,408 |
| **Inventory Turnover Levels** | **0.92** | **0.98** | **1.12** | **1.18** |
|  |  |  |  |  |  |
| **Penn Power** | **Annual Issues ($)** | $2,378,792 | $2,590,307 | $4,605,373 | $3,566,293 |
| **Average Inventory Balances** | $1,720,967 | $1,459,765 | $1,595,223 | $1,673,478 |
| **Inventory Turnover Levels** | **1.38** | **1.77** | **2.89** | **2.13** |
|  |  |  |  |  |  |
| **West Penn** | **Annual Issues ($)** | $10,227,509 | $9,901,349 | $14,655,222 | $16,006,577 |
| **Average Inventory Balances** | $10,815,007 | $9,873,744 | $8,621,332 | $9,123,914 |
| **Inventory Turnover Levels** | **0.95** | **1.00** | **1.70** | **1.76** |
|  |  |  |  |  |  |
| **FE-PA** | **Annual Issues ($)** | **$33,478,177** | **$33,595,417** | **$40,907,909** | **$42,945,691** |
| **Average Inventory Balances** | **$34,940,548** | **$30,984,035** | **$29,036,738** | **$30,433,260** |
| **Inventory Turnover Levels** | **0.96** | **1.08** | **1.41** | **1.41** |

Source: Data Request MM-9 and MM-16

Exhibit IX-4 details the realized savings on average for the years 2016 and 2017 because of improving inventory turnover performance from the levels that existed in 2013 for each of the FE-PA companies. The auditors compared the inventory turnover performance in 2013 to 2016 and 2017 to identify what the hypothetical balance on hand would have been, had each of the FE-PA companies maintained the same performance in 2013. The difference between the hypothetical and actual balances on hand represent a realized one-time savings from improving the inventory turnover levels, and the auditors calculated an average savings based on the performance in 2016 and 2017. Consequently, the FE-PA companies realized an average one-time savings totaling approximately $13.4 million in reduced inventory and an annual savings from reduced carrying costs (10% of inventory dollars) averaging a total of approximately $1.34 million.

**Exhibit IX – 4**

**FirstEnergy Pennsylvania Companies**

**Realized Savings from Increasing Inventory Turnover**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Inventory Measure** | **Met-Ed** | **Penelec** | **Penn Power** | **West Penn** | **FE-PA Companies** |
| **2013** | **Annual Issues** | $10,814,020 | $11,249,894 | $2,670,281 | $11,700,565 | **$36,434,760** |
| **Year-End Inventory Balances** | $9,620,561 | $12,101,891 | $1,490,553 | $14,238,307 | **$37,451,312** |
| **Inventory Turnover Levels** | **1.12** | **0.93** | **1.79** | **0.82** | **0.97** |
| **2016** | **Annual Issues** | $10,390,331 | $11,256,983 | $4,605,373 | $14,655,222 | **$40,907,909** |
| **Year-End Inventory Balances** | $8,736,059 | $10,084,124 | $1,595,223 | $8,621,332 | **$29,036,738** |
| **Inventory Turnover Levels** | **1.19** | **1.12** | **2.89** | **1.70** | **1.41** |
| **Year-End Inventory Balance if Turnover was Equal to Performance in 2013** | $9,243,631 | $12,109,517 | $2,570,723 | $17,833,801 | **$41,757,672** |
| **One-Time Savings** | $507,572 | $2,025,393 | $975,500 | $9,212,469 |  |
| **2017** | **Annual Issues** | $11,556,800 | $11,816,021 | $3,566,293 | $16,006,577 | **$43,005,691** |
| **Year-End Inventory Balances** | $9,659,460 | $9,976,408 | $1,673,478 | $9,123,914 | **$30,433,260** |
| **Inventory Turnover Levels** | **1.20** | **1.18** | **2.13** | **1.75** | **1.41** |
| **Year-End Balance if Turnover was Equal to Performance in 2013** | $10,281,366 | $12,710,893 | $1,990,708 | $19,551,266 | **$44,534,232** |
| **One-Time Savings** | $621,906 | $2,734,485 | $317,230 | $10,427,352 | **$14,100,972** |
| **Average Over Period** | **One-Time Savings** | $564,739 | $2,379,939 | $646,365 | $9,819,910 | **$13,410,953** |
| **Annual Savings** | $56,474 | $237,994 | $64,636 | $981,991 | **$1,341,095** |

Source: Data Request MM-9, MM-11, MM-16 and Auditor Analysis

FirstEnergy plans to continue participating in studies and surveys as they are offered. The UPMG study is conducted annually and the UMMBC and MLMB studies are offered on an ad-hoc basis. FirstEnergy should continue its participation in these studies and surveys, while maintaining an ongoing focus in inventory reduction to improve upon inventory turnover levels.

**Follow-up Recommendation – Continue participation in utility benchmarking studies to ensure inventory goals and practices are aligned with top quartile performing utilities.**

**X. CUSTOMER SERVICE**

**Background** – The Customer Service functions for the FE-PA Companies are

performed by a combination of personnel within FirstEnergy, FESC and each of the

FE-PA companies. The 2014 Focused Management and Operations Audit of the FE-PA companies examined the Customer Service function, which included a review of the organizational structure, current policies and procedures, performance measures and levels, customer information systems, contact centers, universal service, credit and collections procedures, and meter reading. The PUC auditors issued eight Customer Service recommendations and rated this functional area as needing significant improvement. In this chapter, eight prior recommendations and prior situations are reviewed, and eight follow‑up findings and three follow-up recommendations are presented.

**Finding No. X-1**

**Prior Situation** – Due to the anticipated implementation of smart meters, FirstEnergy Corporation (FirstEnergy) initiated and developed staffing strategic plans (including those of the FE-PA companies) to transition its existing meter readers into other areas of the corporation to minimize its impact to the operations of the meter reading function and to those affected departments. Consequently, some meter readers moved into newly created positions within the FirstEnergy Service Company (FESC) Stores and Material Handling Departments as early as December 2011. However, as delays for smart meter implementation occurred in consecutive years, meter reader staffing levels declined by 28% through attrition from 262 in 2009 to 188 in 2013.

Beginning in 2008, meter readers were incorporated into FirstEnergy’s storm response process with their primary roles designated as either hazard responder or public protector based on the training and experience of the individual meter reader. During 2013 alone, the emergency response process was activated 14 times in which meter readers were utilized. Consequently, management indicated that high billing errors and billing disputes (see Follow-up Finding and Conclusion No. X-3) occurred as meter reading estimates were more frequently employed due to the unavailability of meter readers. As such, meter readers were being utilized during storm outage situations and would continue to be used in this capacity throughout the smart meter deployment period as necessary.

Because of these changes, meter reading performance declined. Meter Reading Performance reports for 2009-2013 showed that the companies were not achieving their target goals for meter read rates (defined as the percentage of meter reads obtained compared to meter reads available). Specifically, West Penn Power was not achieving its target goal for error rate (defined as one error per 100,000 reads per total meter reads) which was further cited as a need for improvement in FirstEnergy’s 2013 year‑end Executive Leadership Team (ELT) Reports. The target goal for the meter read rate at Met-Ed, Penelec, and West Penn Power was 94%, and the target goal at Ohio Edison, which includes Penn Power, was 75%. The target goal for error rate at Met-Ed, Penelec, and Penn Power was 39 per 100,000 reads, and the target goal at West Penn Power was 65 per 100,000 reads.

Exhibit X-1 shows the average annual meter read rate and error rate for each of the FE-PA companies from 2009-2013. Performance was below the targeted goal of 94% at Met-Ed, Penelec, and West Penn Power for all five years except for West Penn Power in 2009 when it was owned by Allegheny Energy. Penn Power, which fell under Ohio Edison’s target goal, was above 75% in four of five years, but performance declined in recent years and was below the targeted goal in 2013. West Penn Power’s year-end 2013 read error rate was at 104.2, which was 60% higher than its goal of 65. West Penn Power had also been significantly above its read error rate goal of 65 in 2010 at 184.3, 2011 at 142.7, and 2012 at 84.9. A higher value indicates that more errors are occurring while meter reads are obtained.

**Exhibit X – 1**

**FirstEnergy Pennsylvania Companies**

**Meter Read Rates and Error Rates**

**For the Years 2009 through 2013**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Meter Read Rate** | **2009** | **2010** | **2011** | **2012** | **2013** |
| **Met-Ed** | 84.57% | 76.76% | 68.70% | 86.97% | 82.78% |
| **Penelec** | 79.76% | 78.51% | 70.49% | 90.19% | 85.75% |
| **Penn Power** | 82.24% | 75.64% | 79.00% | 76.70% | 69.59% |
| **West Penn Power** | 94.46% | 90.67% | 92.86% | 85.52% | 83.42% |
| **Error Rate** | **2009** | **2010** | **2011** | **2012** | **2013** |
| **Met-Ed** | 26.7 | 42.0 | 33.3 | 39.3 | 35.0 |
| **Penelec** | 31.7 | 33.7 | 33.1 | 33.9 | 27.6 |
| **Penn Power** | 49.2 | 36.5 | 25.5 | 25.8 | 37.0 |
| **West Penn Power** | NA | 184.3 | 142.7 | 84.9 | 104.2 |

NA – Not Available

Source: 2014 Management Audit Exhibit X-3

**Prior Recommendation** – Improve meter reading performance levels through increased staffing and/or use of contractors while implementing smart meter technologies.

**Follow-up Finding and Conclusion No. X-1 – Meter reading performance has improved due to smart meter deployment.**

**Current Review** – Exhibit X-2 shows that meter reader staffing levels from 2014 through 2017 were reduced 3.5% at Met-Ed and 25.0% at Penelec, eliminated at Penn Power (100% reduction), and slightly increased by 2.3% at West Penn Power as smart meters have been deployed. The reductions occurred primarily through attrition, employee transfers within the organization, or discontinuance of using contractors to perform meter reading functions.

**Exhibit X – 2**

**FirstEnergy Pennsylvania Companies**

**Meter Reader Staffing Levels**

**For the Years 2014 through 2017**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **2014** | **2015** | **2016** | **2017** | **Percent Change** |
| **Met-Ed** | 58 | 73 | 68 | 56 | -3.5% |
| **Penelec** | 60 | 68 | 61 | 45 | -25.0% |
| **Penn Power** | 16 | 10 | 1 | 0 | -100.0% |
| **West Penn Power** | 87 | 89 | 89 | 89 | 2.3% |

Source: Data Request CS-1 and Auditor Analysis

Exhibit X-3 shows the smart meter deployment status as of January 1, 2018 for all the FE-PA companies. Penn Power’s smart meters are almost fully deployed at 99.79%. Penelec’s smart meters are approaching full deployment at 85.25%, while Met-Ed and West Penn Power have about half of theirs remaining at 44.47% and 51.60%, respectively. FirstEnergy stated that Met-Ed, Penelec, and West Penn Power’s smart meters should be fully deployed by 2020.

**Exhibit X – 3**

**FirstEnergy Pennsylvania Companies**

**Status of Smart Meter Deployment**

**As of January 1, 2018**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Smart Meters Deployed** | | **Smart Meters Left to Be Deployed** | | **Total Number of Meters** | | **Percentage of Meters Deployed** | **Percentage of Meters Left to Be Deployed** |
| **Met-Ed** | 321,405 |  | 257,420 |  | 578,825 |  | 55.53% | 44.47% |
| **Penelec** | 509,387 |  | 88,107 |  | 597,494 |  | 85.25% | 14.75% |
| **Penn Power** | 168,129 |  | 354 |  | 168,483 |  | 99.79% | 0.21% |
| **West Penn Power** | 355,776 |  | 379,330 |  | 735,106 |  | 48.40% | 51.60% |
| **FE-PA companies** | 1,354,697 |  | 725,211 |  | 2,079,908 |  | 65.13% | 34.87% |

Source: Data Requests CS-9, CS-14, CS-39, and Auditor Analysis

Meter reading performance improved even as staffing levels decreased due to smart meter deployment.As shown in Exhibits X-4, meter read rates have increased substantially while meter read error rates have decreased at all the FE-PA companies. In 2017, all FE-PA companies achieved the target goal for read rate of 94%. The 2017 targets for the meter read error rates was 52 for experienced meter readers, and 75 for new readers. All the FE-PA companies had actual performance below these targets.

**Exhibit X – 4**

**FirstEnergy Pennsylvania Companies**

**Meter Read Rates and Error Rates**

**For the Years 2014 through 2017**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Meter Read Rates** | | | |
|  | **2014** | **2015** | **2016** | **2017** |
| **Met-Ed** | 86.84% | 94.28% | 96.43% | 97.53% |
| **Penelec** | 89.67% | 94.12% | 97.53% | 98.36% |
| **Penn Power** | 73.14% | 81.39% | 97.61% | 99.73% |
| **West Penn Power** | 90.39% | 95.29% | 96.16% | 96.41% |
|  | **Meter Error Rates** | | | |
|  | **2014** | **2015** | **2016** | **2017** |
| **Met-Ed** | 110.6 | 66.5 | 49.5 | 38.2 |
| **Penelec** | 56.1 | 56.9 | 59.3 | 39.1 |
| **Penn Power** | 53.9 | 69.5 | 31.1 | NA\* |
| **West Penn Power** | 86.4 | 86.3 | 49.6 | 47.4 |

NA – Not Available

\* - Penn Power did not track meter read error rates in 2017 due to almost full smart meter deployment

Source: Data Requests CS-2 and CS-7

**Follow-up Recommendation – None**

**Finding No. X-2**

**Prior Situation** – Pursuant to § 56.12(4)(ii), a utility may estimate the bill of a residential customer if utility personnel are unable to gain access to obtain an actual meter reading. However, at least every six months, the utility must obtain either an actual meter reading or customer-supplied reading to verify the accuracy of prior estimated bills. The Reporting Requirements for Quality of Service Benchmarks and Standards at § 54.153(b)(3)(i) require Electric Distribution Companies (EDCs) to report the number and percentage of residential meters the company has not read in accordance with § 56.12(4)(ii). Under § 56.12(4)(iii), a company may estimate the bill of a residential customer if company personnel are unable to gain access to obtain an actual meter reading. However, at least once every twelve months, the company must acquire an actual meter reading to verify the accuracy of either the estimated or customer-supplied readings. The Reporting Requirements for Quality of Service Benchmarks and Standards at § 54.153(b)(3)(ii) require the EDCs to report the number and percentage of residential meters for which they failed to meet the requirements of this section.

Based on a review of reported meter reading performance for the years 2008 through 2013, the auditors determined that the FE-PA companies were not in compliance with PUC regulations at § 56.12(4)(ii) for reading meters within six-month periods and, West Penn Power in particular, at § 56.12(4)(iii) for reading meters within twelve-month periods. West Penn Power experienced an increase in the number of meters not read in six months from 111 to 879 or an eight-fold increase from 2008 to 2013 with a high of 2,135 in 2012. Meanwhile, the other three FE-PA companies experienced decreases in the number of meters not read in six months from 2008 to 2012 but trended negatively upward again in 2013. Additionally, West Penn Power experienced the same issue with respect to meters not being read in a twelve‑month period specifically since 2010.

After FirstEnergy’s merger with Allegheny Energy, West Penn Power experienced a significant increase in the number of meters not timely read in 2012 while implementing FirstEnergy’s software and integrating into FirstEnergy’s customer service information system. The FE-PA companies reviewed the meter reading data monthly as well as at year-end as was done at Allegheny Energy. West Penn Power experienced many glitches while implementing the new software integration, which created a backlog of metering data to be entered and processed. This transition to a different system reportedly created a one-time anomaly. Once fully implemented, West Penn Power anticipated that its performance for the number of meters not read in both six and twelve-month periods would improve as it returned to its pre-merger level.

The auditors noted that the implementation of smart meter technology would significantly reduce and potentially eliminate all meters not being read within six or twelve-month periods. However, until full implementation of smart meters was achieved, it was likely that the FE-PA companies would be susceptible to meter reading problems of which it may not be aware (e.g., fast or slow meter), including theft of service, when meters were not read by a utility contractor or employee within the six‑month or twelve-month period and consequently not be in compliance with PUC regulations at § 56.12(4)(ii) and § 56.12(4)(iii).

**Prior Recommendation** – Initiate measures to comply with PUC regulations by eliminating and/or substantially reducing the number of meters not read within six and twelve-month periods.

**Follow-up Finding and Conclusion No. X-2 – The number of meters not read within six and twelve-month periods has been significantly reduced.**

**Current Review** – As shown in Exhibit X-5, the FE-PA companies’ number of meters not read in six months decreased from 2014 through 2016, while the panel average increased. The panel average increased more than two-fold, while all the FE-PA companies averages decreased substantially during the same period. Likewise, as shown in Exhibit X-6, the number of meters not read by the FE-PA companies in twelve months decreased from 2014 through 2016, while the panel average increased. The panel average increased more than ten‑fold, while all the FE-PA companies decreased substantially during the same period. The FE-PA companies have been implementing smart meter technology (as shown previously in Exhibit X-3), therefore more meters are being read monthly, along with less errors.

**Exhibit X – 5**

**FirstEnergy Pennsylvania Companies vs. Panel Average**

**Number of Meters Not Read in Six Months**

**For the Years 2014 through 2016**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **2014** | **2015** | **2016** |
| **Duquesne** | 1 | 81 | 462 |
| **PPL** | 55 | 86 | 44 |
| **PECO** | 144 | 370 | 138 |
| **UGI-Electric** | 2 | 1 | 1 |
| **Panel Average** | 51 | 135 | 161 |
|  |  |  |  |
| **Met-Ed** | 881 | 131 | 71 |
| **Penelec** | 59 | 51 | 25 |
| **Penn Power** | 44 | 46 | 0 |
| **West Penn Power** | 327 | 221 | 115 |

Source: 2014-2016 PUC Customer Service Performance Reports and Auditor Analysis

**Exhibit X – 6**

**FirstEnergy Pennsylvania Companies vs. Panel Average**

**Number of Meters Not Read in Twelve Months**

**For the Years 2014 through 2016**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **2014** | **2015** | **2016** |
| **Duquesne** | 0 | 3 | 72 |
| **PPL** | 6 | 22 | 6 |
| **PECO** | 0 | 15 | 15 |
| **UGI-Electric** | 2 | 1 | 0 |
| **Panel Average** | 2 | 10 | 23 |
|  |  |  |  |
| **Met-Ed** | 139 | 23 | 1 |
| **Penelec** | 3 | 2 | 0 |
| **Penn Power** | 7 | 5 | 0 |
| **West Penn Power** | 52 | 23 | 6 |

NA – Not Applicable

Source: 2014-2016 PUC Customer Service Performance Reports and Auditor Analysis

**Follow-up Recommendation – Continue to decrease the number of meters not read in six and twelve months to be in full compliance with § 56.12.**

**Finding No. X-3**

**Prior Situation** – Billing reversals had been higher in recent years at each of the FE-PA companies, except for Penn Power. A billing reversal was used if an adjustment was required to be performed on a customer’s account in which bills would be voided and new bills issued. Billing reversals were shown as a percentage of total bills. The percentages of total bills that required billing reversals are shown in Exhibit X-7.

**Exhibit X – 7**

**FirstEnergy Pennsylvania Companies**

**Billing Reversal Percentages**

**For the Years 2009 through 2013**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **2009** | **2010** | **2011** | **2012** | **2013** |
| **Met-Ed** | 1.61% | 2.02% | 4.17% | 4.94% | 3.67% |
| **Penelec** | 1.94% | 2.03% | 3.64% | 3.94% | 3.71% |
| **Penn Power** | 3.41% | 3.71% | 3.54% | 2.78% | 2.41% |
| **West Penn Power** | NA | NA | NA | 3.41% | 3.80% |
| **FE-PA Companies** | 2.32% | 2.59% | 3.78% | 3.77% | 3.63% |

Source: 2014 Management Audit Report Exhibit X-5

There were 22 codes (e.g., a code for an over estimate) used within the Customer Accounting Department that would trigger a billing reversal. However, a considerable number of billing reversals were being classified as miscellaneous. Of those 22 codes, the auditors determined that seven of the codes were controllable and could be minimized or prevented.

By eliminating the controllable billing reversals from occurring, and thereby reducing billing lag, the FE-PA companies could have increased their cash flow and realized an average annual savings of approximately $27,000 to $31,000 in avoided interest from borrowing from the FirstEnergy Money Pool. The estimates were based upon the average total bill for each of the FE-PA companies and the FirstEnergy Money Pool interest rate of 1.4% as of October 2013.

**Prior Recommendation** – Reduce billing reversals and meter estimates by implementing appropriate process and procedure improvements, and better determining the cause by beginning to classify miscellaneous billing reversals.

**Follow-up Finding and Conclusion No. X-3 – Billing reversals at the FE-PA companies are decreasing.**

**Current Review** – As shown in Exhibit X-8, billing reversal percentages at all the FE-PA companies have decreased from 2014 through 2017 during smart meter deployment. Met‑Ed and Penelec each reduced reversals by approximately 1.5%, Penn Power by over 2%, and West Penn Power by 1.16%.

**Exhibit X – 8**

**FirstEnergy Pennsylvania Companies**

**Billing Reversal Percentages**

**For the Years 2014 through 2017**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2014** | **2015** | **2016** | **2017** |
| **Met-Ed** | 3.58% | 2.73% | 2.24% | 1.99% |
| **Penelec** | 3.53% | 2.91% | 2.54% | 2.06% |
| **Penn Power** | 2.25% | 1.92% | 0.78% | 0.23% |
| **West Penn Power** | 3.16% | 2.66% | 2.23% | 2.00% |
| **FE-PA companies** | 3.25% | 2.69% | 2.21% | 1.87% |

Source: Data Request CS-3

Smart meter deployment has reduced meter estimates, which has led to a decrease in billing reversals. In addition, the companies made some changes to how they identify the causes for billing reversals. In 2015, the FE-PA companies included three additional categories as causes of billing reversals: budget billing true-up, duplicate bill request, and special contract adjustment. The FE-PA companies also eliminated the previous category called “miscellaneous”. These changes helped focus on specific causes for remedy.

The FE-PA companies reduced their average annual billing reversal percentages by 22%, which has resulted in an average annual savings of approximately $5,900 to $6,800 in avoided interest expense from borrowing from the FirstEnergy Money Pool. The estimated savings is based upon the average total bill for each of the companies and the FirstEnergy Money Pool interest rate of 1.5666% as of December 31, 2017. Although this amount is immaterial, the average annual savings could be larger with more reductions in billing reversals or should the interest rate of the FirstEnergy Money Pool increase.

**Follow-up Recommendation – None**

**Finding No. X-4**

**Prior Situation** – FirstEnergy was experiencing high turnover rates for Customer Service Representatives (CSR) and call center performance was below average when compared to other Pennsylvania EDCs. CSR turnover rates at FirstEnergy, which reflected both internal and third-party CSRs, had steadily increased from a low of 12.75% in 2009 to a high of 24.9% in 2013. More specifically, the full-time equivalent CSR turnover rates by year were as follows:

* 2009 – 12.75%
* 2010 – 14.02%
* 2011 – 19.23%
* 2012 – 22.92%
* 2013 – 24.89%

CSR turnover rates increased in 2011 and 2012 reportedly due in large part to the overtime demands associated with major weather events during this period and/or adaptation to FirstEnergy’s new Customer Service Information System in its Fairmont Contact Center. In addition, the Reading Contact Center had to compete with other regional call centers that offered attractive starting wages for CSRs which may have resulted in higher turnover as well. Although the Contact Center Department benefited from stable weather, improved staffing forecasting models, and improved screening during new CSR hiring in 2013, turnover rates remained significantly higher than in prior years.

Achieving a CSR turnover rate closer to the level accomplished in 2009 would help improve contact center performance and avoid costs associated with hiring and training new employees. The hiring process and training required between 75 and 120 days. Over a four-year period from 2010 to 2013, the estimated potential savings from reducing CSR turnover for each of the FE-PA companies was as shown in Exhibit X-9.

**Exhibit X – 9**

**FirstEnergy Pennsylvania Companies**

**Potential Annual Savings from Minimizing**

**Customer Service Representative Turnover**

**For the Years 2010 through 2013**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Potential Annual Savings from Avoided Turnover Costs** | | |
| **Met-Ed** | $67,102 | - | $84,392 |
| **Penelec** | $71,095 | - | $89,414 |
| **Penn Power** | $19,529 | - | $24,561 |
| **West Penn Power** | $86,774 | - | $109,132 |
| **FE-PA Companies** | $244,500 | - | $307,499 |

Source: Exhibit X – 6 of Prior Management Audit

As shown in Exhibit X-10, the auditors compared FirstEnergy’s contact centers’ busy‑out rate, call abandonment rate, and calls answered within 30 seconds to a panel of other EDCs that appear in the BCS Customer Service Performance Reports for the years 2008 through 2013. A lower busy-out rate and call abandonment rate, and a higher percentage of calls answered within 30 seconds are indicative of better performance.

**Exhibit X – 10**

**FirstEnergy Pennsylvania Companies vs. Panel Average**

**Busy-Out Rate, Call Abandonment Rate, and Calls Answered Within 30 Seconds**

**For the Years 2008 through 2013**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Busy-Out*** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** |
| **Duquesne** | 0% | 0% | 0% | 0% | 0% | 0% |
| **PPL** | 3% | 1% | 0% | 0% | 0% | 1% |
| **UGI-Electric** | 12% | 2% | 3% | 0% | 0% | 2% |
| **PECO** | 0% | 0% | 0% | 1% | 1% | 0% |
| **Panel Average** | 4% | 1% | 1% | 0% | 0% | 1% |
| **FirstEnergy** | 0% | 0% | 0% | 6% | 2% | 0% |
| **West Penn Power** | 0% | 0% | 0% | 0% | 1% | 1% |
| ***Call Abandonment*** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** |
| **Duquesne** | 4% | 3% | 3% | 3% | 3% | 3% |
| **PPL** | 2% | 2% | 3% | 3% | 2% | 6% |
| **UGI-Electric** | 5% | 7% | 8% | 4% | 3% | 4% |
| **PECO** | 3% | 3% | 6% | 5% | 4% | 2% |
| **Panel Average** | 4% | 4% | 5% | 4% | 3% | 4% |
| **FirstEnergy** | 3% | 3% | 3% | 3% | 4% | 4% |
| **West Penn Power** | 6% | 5% | 5% | 5% | 9% | 7% |
| ***Answered in 30 seconds*** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** |
| **Duquesne** | 80% | 78% | 77% | 76% | 77% | 80% |
| **PPL** | 76% | 81% | 79% | 82% | 83% | 75% |
| **UGI-Electric** | 87% | 80% | 78% | 82% | 85% | 80% |
| **PECO** | 80% | 81% | 77% | 80% | 85% | 85% |
| **Panel Average** | 81% | 80% | 78% | 80% | 83% | 80% |
| **FirstEnergy** | 81% | 78% | 80% | 80% | 78% | 82% |
| **West Penn Power** | 56% | 60% | 66% | 62% | 65% | 69% |

Source: Exhibit X – 7 of Prior Management Audit

West Penn Power’s contact center performance from 2008 to 2013 fell below the performance of other EDCs in Pennsylvania for the same period. The call abandonment rate in 2013 was almost twice the panel average, and calls answered within 30 seconds were 11% below the panel average. The Contact Center Department indicated that performance was significantly affected by major weather events in 2011 and 2012, which increased the call volume. In addition, the training and implementation of a new customer service system at the Fairmont Contact Center had a negative short-term impact. In April 2012, full integration of the Fairmont Contact Center along with a virtual call process took place, enabling calls across the system to be routed to the next available qualified CSR. Performance was affected at the time of implementation in April 2012 until July 2013. Although all contact center performance metrics improved at year-end 2013, most of the improvements in performance occurred in the first 15 months after implementation. According to the Contact Center Department, calls answered within 30 seconds was on track to achieve 80% performance in 2012 until Hurricane Sandy inundated the call center with outage calls thereby affecting their ability to meet this metric.

Because of this major event and the associated decline in call center performance, measures were implemented to accommodate periods of significant call volumes. These measures included analysts performing continuous real time monitoring of call volumes to maximize the use of available resources; and offering customer mobile phone applications enabling customers to report power outages. Both measures were expected to lead to improvements in performance metrics. Other actions included daily monitoring of inbound telephone capacities and routing calls between the three major Contact Centers. When necessary, a third-party vendor would be used to realize full utilization of resources and minimize busy signals.

**Prior Recommendation** – Implement measures to improve the Contact Center performance levels including efforts to reduce Customer Service Representative turnover levels.

**Follow-up Finding and Conclusion No. X-4 – CSR turnover and West Penn Power’s contact center performance has improved.**

**Current Review** – FirstEnergy has three call centers located in Ohio, Pennsylvania, and West Virginia. The call centers are virtualized and support each of the FE-PA companies. The 2014 through 2017 total call center turnover was as follows:

* 2014 – 21.5%
* 2015 – 17.8%
* 2016 – 14.3%
* 2017 – 14.3%

CSR attendance levels are calculated by taking the total CSR sick time and dividing by the total CSR Full Time Equivalents to determine the sick hours per scheduled CSR. In 2016, FirstEnergy implemented a Paid Time Off program. Sick Hours per Scheduled CSR for 2014 through 2017 are as follows:

* 2014 – 81
* 2015 – 67
* 2016 – 39
* 2017 – 43

Each year, a survey is provided to CSRs to receive their feedback on areas related to resources and support, feedback and recognition, quality and work environment. Job satisfaction for 2014 through 2017 was as follows:

* 2014 – 85.2%
* 2015 – 85.3%
* 2016 – 89.0%
* 2017 – 93.5%

As shown in Exhibit X-11, call center performance has improved, except for a slight increase in busy-out rate. The rate of calls answered within 30-seconds remained steady at FirstEnergy and increased at West Penn Power. The call abandonment rate remained steady and decreased at West Penn Power. As part of the merger agreement between FirstEnergy and Allegheny Energy, West Penn Power’s performance is reported separately where 70% of calls were to be answered in a 30‑second period by 2016.

**Exhibit X – 11**

**FirstEnergy Pennsylvania Companies vs. Panel Average**

**Busy-Out Rate, Call Abandonment Rate, and Calls Answered Within 30 Seconds**

**For the Years 2014 through 2016**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Busy-Out*** | **2014** | **2015** | **2016** |
| **Duquesne** | 0% | 0% | 0% |
| **PPL** | 0% | 0% | 0% |
| **UGI-Electric** | 1% | 0% | 0% |
| **PECO** | 1% | 1% | 0% |
| **Panel Average** | 1% | 0% | 0% |
| **FirstEnergy** | 0% | 1% | 2% |
| **West Penn Power** | 1% | 1% | 3% |
| ***Call Abandonment*** | **2014** | **2015** | **2016** |
| **Duquesne** | 4% | 10% | 7% |
| **PPL** | 7% | 3% | 4% |
| **UGI-Electric** | 4% | 4% | 3% |
| **PECO** | 3% | 1% | 1% |
| **Panel Average** | 5% | 5% | 4% |
| **FirstEnergy** | 4% | 5% | 4% |
| **West Penn Power** | 8% | 6% | 3% |
| ***Answered in 30 seconds*** | **2014** | **2015** | **2016** |
| **Duquesne** | 80% | 84% | 84% |
| **PPL** | 74% | 87% | 90% |
| **UGI-Electric** | 80% | 80% | 83% |
| **PECO** | 89% | 91% | 92% |
| **Panel Average** | 81% | 86% | 87% |
| **FirstEnergy** | 80% | 80% | 81% |
| **West Penn Power** | 71% | 76% | 80% |

Source: 2014-2016 PUC Customer Service Performance Reports and Auditor Analysis

In 2016, a change to the low-income termination notification process[[3]](#footnote-3) resulted in higher call volumes on April 1st and 4th, causing extended wait times and busy signals. On Monday, April 4, 2016, FirstEnergy contact centers received over twice the calls as the first Monday in April 2017, where 61% of the calls received were in the first three business hours. The impact from these two days increased the busy-out rate by 1.2% for Met-Ed, Penelec, and Penn Power and 2.6% for West Penn in 2016. In 2017, FirstEnergy busy-out rates decreased when compared to historical averages. The combined busy-out rates for Met‑Ed, Penelec, and Penn Power were 1.1% compared to 2% in 2016. West Penn Power’s busy-out rate was 1.5% in 2017 compared to 3.2% in 2016. West Penn Power’s 2017 busy-out rate was significantly impacted on April 3rd by 0.4% due to an external software upgrade outside of FirstEnergy’s control.

In addition to reducing CSR turnover rates, FirstEnergy stated the following change were made to facilities and for call center personnel:

* **Facilities –** From 2015 through 2017, and continuing through 2019, improvements were made and are planned for the employees’ working environment. The upgrades included new carpet, lighting, chairs and workstations, and renovations. In addition, improvements such as employee entrance way renovation, moveable sit-stand workstations and dual computer monitors for easier navigation were implemented.
* **Personnel –** In 2016, the call center management team launched a program called “Your Career is Calling”. This program was designed to help employees understand their career path and the various opportunities at the call center and all of FirstEnergy. The program was reinforced by posters and testimonials of agents that pursued these opportunities. Many rotational assignments and job shadowing opportunities are also available to employees to allow them insight into and to gain experience in other positions.

In addition, the following is a list of call center and website self-service system enhancements that improved both agent and the customer experience:

* **Interactive Voice Response (IVR) Natural Language** (June 2016) – IVR allows the customer to use their own words when making a request rather than replying with specific words, phrases, or menu choices. This natural language voice response helps navigate customers to an agent with the right skills to assist with the customer’s request or assists customers through the self-service process by understanding their speech and then interacting with the them through follow-up questions, answering their question or directing them to a specific area.
* **IVR Bill Response** (December 2016) – This system provides customers with automated explanations of significant variances in their bill based on several bill factors specific to their account.
* **IVR Authentication** (December 2017) – This system captures customer supplied information in the IVR to initiate the authentication process. With this process, the agent can begin the conversation by asking how to help instead of going through an authentication process with the customer.
* **Agent Phone System - Rockwell Replacement** (November 2016) – FirstEnergy replaced the Rockwell phone system with an Avaya system which included changing all phones and headsets.
* **Customer Relationship Management (CRM)** (February 2016) – The CRM is a new front-end tool to the Customer Information System (CIS). In 2016, the new front-end system was provided to the call center agents. This new tool streamlined work process and provided enhanced automation and scripting. CRM supports easier and more fluid training of agents, helps agents in using the CIS, and simplifies assisting customers with their requests.
* **Installment Plans - Website** (May 2016) – FirstEnergy added functionality to its website to assist customers with installment plans.
* **Upgrade Mobile Applications and Ability for Mobile Payment** (July 2017) – FirstEnergy mobile applications were updated to align with the website design.

Although CSR turnover rates are not at the level achieved in 2009 (i.e., 12.75%), the turnover rates in 2016 and 2017 have improved and have resulted in improvements to contact center performance that are at or better than the panel average for other Pennsylvania EDCs. The FE-PA companies experienced an average turnover reduction of 10% from 2014 through 2017, which means realized annual savings in turnover costs of approximately $24,000-$31,000 as shown in Exhibit X-12.

**Exhibit X – 12**

**FirstEnergy Pennsylvania Companies**

**Annual Savings from Reduced Turnover Costs**

**For the Years 2014 through 2017**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Annual Savings from Reduced Turnover Costs** | | |
| **Met-Ed** | $6,710 | - | $8,439 |
| **Penelec** | $7,110 | - | $8,941 |
| **Penn Power** | $1,953 | - | $2,456 |
| **West Penn Power** | $8,677 | - | $10,913 |
| **FE-PA companies** | $24,450 | - | $30,750 |

Source: Data Request CS-4, Exhibit X – 6 of Prior Management Audit, and Auditor Analysis

**Follow-up Recommendation – None**

**Finding No. X-5**

**Prior Situation** – When a customer registers a dispute with a utility concerning an issue with respect to Chapter 56 regulations, a utility is to respond to the complaining party within 30 days of the initiation of the dispute pursuant to § 56.151(5). As shown in Exhibit X-13, the FE-PA companies’ number of residential disputes with a response time greater than 30 days were drastically higher in 2011, 2012, and 2013. While improvements occurred in 2013, Met-Ed, Penelec, and West Penn Power were still significantly higher than previous years. In general, performance improved slightly in 2013 for the FE-PA companies but had not returned to levels prior to 2011.

**Exhibit X – 13**

**FirstEnergy Pennsylvania Companies**

**Residential Disputes with a Response Time Greater Than 30 Days**

**For the Years 2008 through 2013**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** |
| **Met-Ed** | 2 | 2 | 11 | 462 | 2,604 | 2,109 |
| **Penelec** | 2 | 1 | 12 | 500 | 1,851 | 1,379 |
| **Penn Power** | 2 | 1 | 5 | 232 | 274 | 167 |
| **West Penn Power** | 15 | 15 | 14 | 3 | 2,338 | 1,580 |

Source: Exhibit X – 8 from Prior Management Audit

The Contact Center Department indicated the focus of integrating all the prior Allegheny Energy EDCs, including West Penn Power, into the SAP Customer Care System affected the timely completion of residential disputes. Integration began in March 2011 and was completed in April 2012. CSRs were cross-trained to handle West Penn Power customer calls and related inquiries, including the completion of reports for open disputes. The reasons for the delay in response to disputes include higher than anticipated attrition (see CSR turnover levels addressed in Finding and Conclusion No.4), increased average handle times (AHT) due to CIS system integration issues, and resource allocations to respond to the major storm events in 2011 and 2012 (see Finding and Conclusion No. 4). Improvements in the Contact Center operations were made by year-end 2012 in which AHTs were lowered resulting in more time to complete the residential disputes. Despite these changes, the FE-PA companies were not in compliance with § 56.151(5).

**Prior Recommendation** – Initiate measures to eliminate or substantially reduce the frequency of residential disputes that are not responded to in 30 days as required by

PUC regulations.

**Follow-up Finding and Conclusion No. X-5 – Residential disputes with a response time greater than 30 days have been reduced to zero at all the FE-PA companies.**

**Current Review** – As shown in Exhibit X-14, in 2016, the FE-PA companies eliminated residential disputes with a response time greater than 30 days, and therefore, are in compliance with § 56.151(5). To address specific performance objectives and other regulatory requirements, the companies created Pennsylvania Management Reports (PMRs) in 2015 which were to be reviewed in conjunction with the ELT Reports. Based on the various stages of development of the PMRs, they began at different times. A Residential Customer Disputes report became available during July 2015 that provides a daily status of each dispute and categorizes them into work types. In the report, the day ranges allow for easier visibility when a dispute is moving close to the 21 days or greater point and allows management to focus resources on resolution activities.

**Exhibit X – 14**

**FirstEnergy Pennsylvania Companies vs. Panel Average**

**Residential Disputes with a Response Time Greater Than 30 Days**

**For the Years 2014 through 2016**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **2014** | **2015** | **2016** |
| **Duquesne** | 39 | 56 | 57 |
| **PPL** | 72 | 100 | 55 |
| **PECO** | 132 | 1,853 | 1 |
| **UGI-Electric** | 0 | 0 | 0 |
| **Panel Average** | 61 | 502 | 28 |
|  |  |  |  |
| **Met-Ed** | 1,296 | 198 | 0 |
| **Penelec** | 874 | 128 | 0 |
| **Penn Power** | 100 | 26 | 0 |
| **West Penn Power** | 479 | 97 | 0 |

Source: 2014-2016 PUC Customer Service Performance Reports

**Follow-up Recommendation – None**

**Finding No. X-6**

**Prior Situation** – Met-Ed and Penn Power experienced higher than average arrearages per residential customer than a panel of Pennsylvania EDCs. As shown in Exhibit X-15, Met-Ed experienced average arrearages per residential customer above a panel average of Pennsylvania EDCs in 2008, 2011, and 2012, while Penn Power exceeded the panel average for the entire period from 2008 through 2012.

**Exhibit X – 15**

**FirstEnergy Pennsylvania Companies vs. Panel Average**

**Average Arrears per Residential Customer**

**For the Years 2008 through 2012**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **2008** | **2009** | **2010** | **2011** | **2012** |
| **Duquesne** | $483 | $508 | $539 | $509 | $501 |
| **PPL** | $437 | $452 | $480 | $565 | $593 |
| **PECO** | $388 | $478 | $449 | $455 | $539 |
| **Panel Average** | $436 | $479 | $489 | $510 | $544 |
| **Met-Ed** | $441 | $443 | $488 | $559 | $588 |
| **Penelec** | $364 | $352 | $370 | $444 | $508 |
| **Penn Power** | $494 | $543 | $559 | $563 | $558 |
| **West Penn Power** | $87 | $98 | $112 | $116 | $206 |
| **FE-PA Companies** | $347 | $359 | $382 | $421 | $465 |

Source: Exhibit X – 9 from Prior Management Audit

Met-Ed and Penn Power could have realized a combined average annual savings of approximately $24,000 in interest rate expenses by reducing arrearages to the panel average assuming the increased cash flow would have alleviated a need to borrow from the FirstEnergy Money Pool at an interest rate of 1.4% as of October 2013.

**Prior Recommendation** – Expand efforts to reduce arrearages to levels comparable with a panel of PA EDC averages.

**Follow-up Finding and Conclusion No. X-6 – Arrearages over 90 days have decreased; however, average arrearages were higher than a panel average of other Pennsylvania EDCs in 2016.**

**Current Review** – As shown in Exhibit X-16, the FE-PA companies have decreased arrearages on a percentage basis over 90 days. However, as shown in Exhibit X-17, the FE-PA companies other than West Penn Power were substantially higher in terms of average arrearages per residential customer than a panel average in 2016. Each of the FE-PA companies were close to or below the panel average in 2013 through 2015.

**Exhibit X – 16**

**FirstEnergy Pennsylvania Companies**

**Arrearages 31-60, 61-90, 91-120 and >120 Days**

**For the Period 2013 through 2017**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **2013** | **31 – 60 Days** | **61 - 90 Days** | **91 - 120 Days** | **> 120 Days** | **Total Amount** | **% over 90 days** |
| **Amount** | **Amount** | **Amount** | **Amount** |
| **Met-Ed** | $2,953,835 | $1,892,247 | $1,464,602 | $11,607,500 | $17,918,183 | **72.95%** |
| **Penelec** | $2,794,022 | $1,692,567 | $1,242,675 | $10,438,614 | $16,167,877 | **72.25%** |
| **Penn Power** | $641,117 | $399,423 | $264,486 | $2,603,358 | $3,908,384 | **73.38%** |
| **West Penn Power** | $2,118,660 | $1,351,919 | $911,981 | $5,220,864 | $9,603,424 | **63.86%** |
| **FE-PA Companies** | **$8,507,633** | **$5,336,156** | **$3,883,744** | **$29,870,335** | **$47,597,869** | **70.92%** |
| **2014** | **31 - 60 Days** | **61 - 90 Days** | **91 - 120 Days** | **> 120 Days** | **Total Amount** | **% over 90 days** |
| **Amount** | **Amount** | **Amount** | **Amount** |
| **Met-Ed** | $3,086,435 | $1,698,081 | $1,466,163 | $11,847,574 | $18,098,253 | **73.56%** |
| **Penelec** | $3,113,954 | $1,701,760 | $1,346,556 | $11,552,283 | $17,714,552 | **72.81%** |
| **Penn Power** | $738,082 | $370,195 | $280,693 | $2,490,792 | $3,879,763 | **71.43%** |
| **West Penn Power** | $2,519,019 | $1,292,063 | $853,681 | $6,544,725 | $11,209,487 | **66.00%** |
| **FE-PA Companies** | **$9,457,491** | **$5,062,099** | **$3,947,092** | **$32,435,373** | **$50,902,056** | **71.48%** |
| **2015** | **31 - 60 Days** | **61 - 90 Days** | **91 - 120 Days** | **> 120 Days** | **Total Amount** | **% over 90 days** |
| **Amount** | **Amount** | **Amount** | **Amount** |
| **Met-Ed** | $3,852,024 | $1,937,979 | $1,234,610 | $8,938,486 | $15,963,100 | **63.73%** |
| **Penelec** | $4,022,482 | $1,952,129 | $1,142,997 | $9,029,041 | $16,146,649 | **63.00%** |
| **Penn Power** | $1,257,452 | $589,512 | $330,395 | $2,269,860 | $4,447,219 | **58.47%** |
| **West Penn Power** | $3,566,691 | $1,713,109 | $1,035,153 | $6,128,385 | $12,443,337 | **57.57%** |
| **FE-PA Companies** | **$12,698,649** | **$6,192,729** | **$3,743,155** | **$26,365,772** | **$49,000,305** | **61.45%** |
| **2016** | **31 - 60 Days** | **61 - 90 Days** | **91 - 120 Days** | **> 120 Days** | **Total Amount** | **% over 90 days** |
| **Amount** | **Amount** | **Amount** | **Amount** |
| **Met-Ed** | $3,617,779 | $2,199,939 | $1,071,275 | $7,118,700 | $14,007,693 | **58.47%** |
| **Penelec** | $4,221,379 | $2,551,776 | $1,240,216 | $8,366,335 | $16,379,705 | **58.65%** |
| **Penn Power** | $1,049,416 | $615,235 | $338,529 | $2,529,508 | $4,532,688 | **63.27%** |
| **West Penn Power** | $4,374,066 | $2,492,403 | $1,233,689 | $6,396,007 | $14,496,165 | **52.63%** |
| **FE-PA Companies** | **$13,262,639** | **$7,859,353** | **$3,883,709** | **$24,410,550** | **$49,416,251** | **57.26%** |
| **2017** | **31 - 60 Days** | **61 - 90 Days** | **91 - 120 Days** | **> 120 Days** | **Total Amount** | **% over 90 days** |
| **Amount** | **Amount** | **Amount** | **Amount** |
| **Met-Ed** | $4,144,334 | $2,217,704 | $1,303,137 | $5,873,155 | $13,538,329 | **53.01%** |
| **Penelec** | $4,552,065 | $2,546,403 | $1,511,201 | $7,072,981 | $15,682,650 | **54.74%** |
| **Penn Power** | $1,136,386 | $643,333 | $370,198 | $1,979,651 | $4,129,569 | **56.90%** |
| **West Penn Power** | $4,395,276 | $2,409,638 | $1,488,602 | $6,303,524 | $14,597,040 | **53.38%** |
| **FE-PA Companies** | **$14,228,061** | **$7,817,079** | **$4,673,138** | **$21,229,312** | **$47,947,589** | **54.02%** |

Source: Data Request CS-5 and Auditor Analysis

**Exhibit X – 17**

**FirstEnergy Pennsylvania Companies vs. Panel Average**

**Average Arrearages per Residential Customer**

**For the Period 2013 through 2016**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2013** | **2014** | **2015** | **2016** |
| **Duquesne Light** | $513 | $563 | $371 | $299 |
| **PECO** | $439 | $380 | $335 | $286 |
| **PPL** | $620 | $618 | $632 | $471 |
| **Panel Average** | $524 | $520 | $446 | $352 |
|  |  |  |  |  |
| **Met-Ed** | $528 | $494 | $453 | $404 |
| **Penelec** | $457 | $432 | $407 | $403 |
| **Penn Power** | $468 | $431 | $426 | $452 |
| **West Penn Power** | $284 | $302 | $319 | $356 |

Source: 2014-2016 Reports on Universal Service Programs and Collection Performance

A Deposit on Active (DOA) program for the FE-PA companies was implemented beginning in April 2012 and completed in December 2013. This is an automated process that evaluates accounts of existing customers using specific criteria and automatically assesses a deposit where appropriate. Customers that qualify will receive a warning letter informing them that a deposit will be assessed if the account is not brought current. If two bills go past due after the warning is issued, and the customer does not pay the past due amount or set up a payment arrangement, a deposit will be assessed on their next bill. Customers who pay beyond the grace period of the due date and meet the other criteria are also subject to receive a warning letter and potential deposit assessment.

At the time the DOA Program was implemented in Pennsylvania, a customer was entitled to a one-time waiver of the deposit under the following circumstances:

* Customer enrolls in Direct Debit.
* Customer pays the full balance.
* Customer pays the past due balance or establishes an installment plan to satisfy past due.

A multi-level control was put into place to control the number of waivers granted:

* First Level
  + A transaction was created for use by CSRs when considering the waiver of a deposit. The transaction:
    - Reviews the account and alerts the representative that the customer has already had a deposit waiver and provides the representative with the date of the waiver.
    - Under certain circumstances, it may be appropriate to offer a customer a second waiver. The representative can by-pass this alert and offer the customer a waiver once they have supervisor approval.
* Second Level
  + A report is run monthly to determine the number of waivers granted to customers where a deposit was assessed through the DOA Program. This report is evaluated by Revenue Operations management.
  + An acceptable level of 2% or less of DOA waivers has been established.
  + If the level of waivers exceeds the 2% level, contact center management is notified of the exception.

The waiver opportunity was discontinued in June 2015. The one-time waiver deposit was included during the implementation of the DOA program. To allow for customer adaptation and understanding of the new DOA program, the FE-PA companies allowed a one-time waiver of the deposit. It was also determined that the one-time waiver process would continue for approximately two years to allow for the full dissemination and exposure of the DOA Program.

The FE-PA companies stated they have established control reports to provide consistent monitoring of security deposit waivers and length of installment plans, which are reviewed with management, and to assist in coaching for non-adherence when necessary. The number of waiver of security deposits has increased year over year, from 13,631 in 2013 to 32,830 in 2017. The number of security deposit waivers increased considerably, starting in 2015 due to the FE-PA companies complying with a regulatory change to waive security deposits assessed to low-income customers. In addition, the FE-PA companies have reportedly targeted older receivables and higher account balances, while field arrears management activities maintained a focus on delinquent account balances over sixty days.

Outside the moratorium period, the FE-PA companies emphasize collection for all accounts, including those classified as low-income. During the moratorium period, the focus shifts to delinquent accounts that are not reported as low-income and accounts without household income information because they have not responded to attempts to obtain household income data. Lastly, the FE-PA companies partnered with a third-party vendor for outbound dialing services and continue to have success contacting customers for collection activity.

As shown in Exhibits X-18 through X-20, the FE-PA companies’ outside collection agency performance has been low from 2014 through 2017 when compared to the gross collection goals. Secondary agency performance is expected to be lower due to their efforts being later in the collection process, but final bill and primary collection should be much higher. FirstEnergy uses one collection agency for final bill collections, two collection agencies for primary collections, and two collection agencies for secondary collections.

**Exhibit X – 18**

**FirstEnergy Pennsylvania Companies**

**Final Bill Collection Performance**

**For the Period 2014 through 2017**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Placements** | **Gross Recoveries** | **Gross Recovery %** | **Net Recoveries** | **Net Recovery %** |
| **FE-PA Companies** |  |  |  |  |  |
| **2014** | $51,329,839 | $1,655,696 | **3.23%** | $1,523,240 | **2.97%** |
| **2015** | $52,283,423 | $1,795,187 | **3.43%** | $1,651,572 | **3.16%** |
| **2016** | $52,729,040 | $1,918,000 | **3.64%** | $1,764,560 | **3.35%** |
| **2017** | $53,466,025 | $1,759,697 | **3.29%** | $1,618,922 | **3.03%** |
| **Met-Ed** |  |  |  |  |  |
| **2014** | $19,637,989 | $600,301 | **3.70%** | $552,277 | **3.40%** |
| **2015** | $18,911,644 | $605,241 | **3.65%** | $556,822 | **3.36%** |
| **2016** | $17,376,674 | $616,373 | **3.78%** | $567,063 | **3.48%** |
| **2017** | $16,479,120 | $566,632 | **3.42%** | $521,302 | **3.15%** |
| **Penelec** |  |  |  |  |  |
| **2014** | $16,231,367 | $516,672 | **2.63%** | $475,338 | **2.42%** |
| **2015** | $16,595,634 | $538,415 | **2.85%** | $495,342 | **2.62%** |
| **2016** | $16,301,503 | $556,608 | **3.20%** | $512,079 | **2.95%** |
| **2017** | $16,557,760 | $531,845 | **3.23%** | $489,297 | **2.97%** |
| **Penn Power** |  |  |  |  |  |
| **2014** | $2,872,056 | $75,610 | **2.63%** | $69,561 | **2.42%** |
| **2015** | $3,297,565 | $116,032 | **3.52%** | $106,749 | **3.24%** |
| **2016** | $3,466,381 | $154,678 | **4.46%** | $142,304 | **4.11%** |
| **2017** | $3,722,892 | $135,672 | **3.64%** | $124,818 | **3.35%** |
| **West Penn Power** |  |  |  |  |  |
| **2014** | $12,588,426 | $463,114 | **3.68%** | $426,064 | **3.38%** |
| **2015** | $13,478,581 | $535,500 | **3.97%** | $492,660 | **3.66%** |
| **2016** | $15,584,482 | $590,342 | **3.79%** | $543,114 | **3.48%** |
| **2017** | $16,706,253 | $525,548 | **3.15%** | $483,505 | **2.89%** |

Gross Collection Goals: Threshold – 7.5%; Target – 8.0%; Stretch – 9.0%

Source: Data Requests CS-12 and CS-21, and Auditor Analysis

**Exhibit X – 19**

**FirstEnergy Pennsylvania Companies**

**Primary Collection Performance**

**For the Period 2014 through 2017**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Placements** | **Gross Recoveries** | **Gross Recovery %** | **Net Recoveries** | **Net Recovery %** |
| **FE-PA Companies** |  |  |  |  |  |
| **2014** | $38,480,285 | $570,003 | **1.48%** | $466,054 | **1.21%** |
| **2015** | $47,418,362 | $799,391 | **1.69%** | $654,531 | **1.38%** |
| **2016** | $49,204,114 | $825,846 | **1.68%** | $676,326 | **1.37%** |
| **2017** | $48,216,169 | $884,201 | **1.83%** | $722,554 | **1.50%** |
| **Met-Ed** |  |  |  |  |  |
| **2014** | $15,204,106 | $209,700 | **1.74%** | $171,523 | **1.43%** |
| **2015** | $17,749,302 | $315,639 | **2.08%** | $258,521 | **1.70%** |
| **2016** | $17,069,900 | $315,538 | **2.08%** | $258,465 | **1.71%** |
| **2017** | $15,624,733 | $300,826 | **2.08%** | $246,411 | **1.70%** |
| **Penelec** |  |  |  |  |  |
| **2014** | $12,025,078 | $160,786 | **1.06%** | $131,435 | **0.86%** |
| **2015** | $15,171,781 | $239,695 | **1.35%** | $196,226 | **1.11%** |
| **2016** | $15,147,099 | $233,549 | **1.37%** | $191,245 | **1.12%** |
| **2017** | $14,465,662 | $282,479 | **1.81%** | $231,382 | **1.48%** |
| **Penn Power** |  |  |  |  |  |
| **2014** | $2,103,995 | $31,141 | **1.48%** | $25,441 | **1.21%** |
| **2015** | $2,870,485 | $44,242 | **1.54%** | $36,212 | **1.26%** |
| **2016** | $3,166,412 | $44,044 | **1.39%** | $36,062 | **1.14%** |
| **2017** | $3,302,832 | $49,385 | **1.50%** | $40,432 | **1.22%** |
| **West Penn Power** |  |  |  |  |  |
| **2014** | $9,147,106 | $168,377 | **1.84%** | $137,656 | **1.50%** |
| **2015** | $11,626,794 | $199,815 | **1.72%** | $163,572 | **1.41%** |
| **2016** | $13,820,704 | $232,715 | **1.68%** | $190,554 | **1.38%** |
| **2017** | $14,822,942 | $251,511 | **1.70%** | $204,329 | **1.38%** |

Gross Collection Goals: Threshold – 3.5%; Target – 4.0%; Stretch – 4.5%

Source: Data Requests CS-12 and CS-21, and Auditor Analysis

**Exhibit X – 20**

**FirstEnergy Pennsylvania Companies**

**Secondary Collection Performance**

**For the Period 2014 through 2017**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Placements** | **Gross Recoveries** | **Gross Recovery %** | **Net Recoveries** | **Net Recovery %** |
| **FE-PA Companies** |  |  |  |  |  |
| **2014** | $27,177,397 | $335,624 | **1.23%** | $244,227 | **0.90%** |
| **2015** | $49,419,997 | $497,007 | **1.01%** | $362,448 | **0.73%** |
| **2016** | $43,348,608 | $726,295 | **1.68%** | $515,669 | **1.19%** |
| **2017** | $41,522,499 | $701,742 | **1.69%** | $498,237 | **1.20%** |
| **Met-Ed** |  |  |  |  |  |
| **2014** | $11,547,204 | $135,201 | **1.49%** | $98,414 | **1.08%** |
| **2015** | $20,332,788 | $216,549 | **1.36%** | $158,589 | **1.00%** |
| **2016** | $16,081,443 | $330,685 | **2.38%** | $234,786 | **1.69%** |
| **2017** | $14,835,543 | $173,095 | **1.33%** | $122,897 | **0.94%** |
| **Penelec** |  |  |  |  |  |
| **2014** | $9,103,425 | $131,674 | **1.14%** | $96,153 | **0.83%** |
| **2015** | $15,934,481 | $172,562 | **0.85%** | $125,355 | **0.62%** |
| **2016** | $13,908,318 | $232,653 | **1.45%** | $165,184 | **1.03%** |
| **2017** | $13,007,571 | $295,508 | **1.99%** | $209,811 | **1.41%** |
| **Penn Power** |  |  |  |  |  |
| **2014** | $1,174,218 | $9,759 | **0.83%** | $6,745 | **0.57%** |
| **2015** | $2,102,480 | $17,455 | **0.83%** | $12,818 | **0.61%** |
| **2016** | $2,495,507 | $22,696 | **0.91%** | $16,114 | **0.65%** |
| **2017** | $2,511,597 | $48,849 | **1.94%** | $34,683 | **1.38%** |
| **West Penn Power** |  |  |  |  |  |
| **2014** | $5,352,551 | $58,990 | **1.10%** | $42,915 | **0.80%** |
| **2015** | $11,050,248 | $90,441 | **0.82%** | $65,686 | **0.59%** |
| **2016** | $10,863,339 | $140,260 | **1.29%** | $99,585 | **0.92%** |
| **2017** | $11,167,788 | $184,290 | **1.65%** | $130,846 | **1.17%** |

Gross Collection Goals: Threshold – 2.0%; Target – 2.5%; Stretch – 3.0%

Source: Data Requests CS-12 and CS-21, and Auditor Analysis

FirstEnergy is considering issuing a request for proposal (RFP) in 2018 to outside collection agencies, both currently under contract and potential new partners. Should FirstEnergy decide to proceed with the RFP, the following is the proposed timeline:

* Q1 2018: Requirement gathering and RFP preparation.
* Q2 2018: Issue the RFP to agencies and receive RFP responses.
* Q3 2018: Evaluate responses, interview short-listed respondents and make selections.
* Q4 2018: Negotiate terms and conditions, onboard new agency partners, including completion of required FE system changes to incorporate new agencies; and
* January 1, 2019: Target deployment and go-live date with new agency.

The auditors have noted outside collection agencies performance at another comparable Pennsylvania utility achieved average primary net collection percentages of 11% during this period.[[4]](#footnote-4) The auditors believe, at a minimum, a conservative improvement in net primary collection performance of 5.5% and the net secondary collection goal of 2.5% are achievable. Exhibit X-21 shows the potential net collection amounts that the FE-PA companies could have achieved at 5.5% to 11% for primary collection, and 2.5% for secondary collection.

**Exhibit X – 21**

**FirstEnergy Pennsylvania Companies**

**Potential Net Collection Amounts for Primary (5.5% to 11%) and Secondary (2.5%)**

**For the Period 2014 through 2017**

|  |  |  |
| --- | --- | --- |
| **Year** | **Primary – 5.5% to 11%** | **Secondary – 2.5%** |
| **FE-PA Companies** | |
| **2014** | $2,116,416 - $4,232,831 | $679,435 |
| **2015** | $2,608,010 - $5,216,020 | $1,235,500 |
| **2016** | $2,706,226 - $5,412,453 | $1,083,715 |
| **2017** | $2,651,889 - $5,303,779 | $1,038,062 |
|  | **Met-Ed** | |
| **2014** | $661,379 - $1,322,759 | $227,586 |
| **2015** | $834,448 - $1,668,896 | $398,362 |
| **2016** | $833,090 - $1,666,181 | $347,708 |
| **2017** | $795,611 - $1,591,223 | $325,189 |
|  | **Penelec** | |
| **2014** | $836,226 - $1,672,452 | $288,680 |
| **2015** | $976,212 - $1,952,423 | $508,320 |
| **2016** | $938,845 - $1,877,689 | $402,036 |
| **2017** | $859,360 - $1,718,721 | $370,889 |
|  | **Penn Power** | |
| **2014** | $115,720 - $231,439 | $29,355 |
| **2015** | $157,877 - $315,753 | $52,562 |
| **2016** | $174,153 - $348,305 | $62,388 |
| **2017** | $181,656 - $363,312 | $62,790 |
|  | **West Penn Power** | |
| **2014** | $503,091 - $1,006,182 | $133,814 |
| **2015** | $639,474 - $1,278,947 | $276,256 |
| **2016** | $760,139 - $1,520,277 | $271,583 |
| **2017** | $815,262 - $1,630,524 | $279,195 |

Source: Data Requests CS-12 and CS-21, and Auditor Analysis

Next, Exhibit X-22 shows the additional cash flow that would have resulted as the difference of net collection performance from the range of 5.5% to 11% for primary, and 2.5% for secondary, from what the FE-PA companies achieved. The range of potential average one-time cost revenue recovery for the FE-PA companies for 2014 through 2017 is approximately $2.5 million to $4.8 million that consisted of approximately $720,000 to $1.4 million at Met-Ed, $960,000 to $1.8 million at Penelec, $160,000 to $300,000 at Penn Power, and $660,000 to $1.3 million at West Penn Power.

**Exhibit X – 22**

**FirstEnergy Pennsylvania Companies**

**Additional Cash Flow**

**For the Period 2014 through 2017**

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Additional Cash Flow - Primary at 5.5% to 11%** | **Additional Cash Flow - Secondary at 2.5%** | **Total Potential Revenue Recovery** |
| **FE-PA Companies** | | |
| **2014** | $1,650,362 - $3,766,777 | $435,208 | $2,085,569 - $4,201,985 |
| **2015** | $1,953,479 - $4,561,489 | $873,052 | $2,826,531 - $5,434,541 |
| **2016** | $2,029,900 - $4,736,127 | $568,046 | $2,597,946 - $5,304,173 |
| **2017** | $1,929,335 - $4,581,225 | $539,825 | $2,469,161 - $5,121,050 |
|  | **Met-Ed** | | |
| **2014** | $489,857 - $1,151,236 | $129,171 | $619,028 - $1,280,407 |
| **2015** | $575,927 - $1,410,375 | $239,773 | $815,700 - $1,650,148 |
| **2016** | $574,626 - $1,407,716 | $112,922 | $687,547 - $1,520,638 |
| **2017** | $549,200 - $1,344,812 | $202,292 | $751,493 - $1,547,104 |
|  | **Penelec** | | |
| **2014** | $704,791 - $1,541,017 | $192,527 | $897,319 - $1,733,544 |
| **2015** | $779,985 - $1,756,197 | $382,964 | $1,162,950 - $2,139,161 |
| **2016** | $747,599 - $1,686,444 | $236,852 | $984,451 - $1,923,296 |
| **2017** | $627,978 - $1,487,339 | $161,078 | $789,056 - $1,648,417 |
|  | **Penn Power** | | |
| **2014** | $90,279 - $205,999 | $22,611 | $112,890 - $228,610 |
| **2015** | $121,665 - $279,542 | $39,744 | $161,409 - $319,286 |
| **2016** | $138,091 - $312,243 | $46,274 | $184,364 - $358,517 |
| **2017** | $141,224 - $322,880 | $28,107 | $169,331 - $350,987 |
|  | **West Penn Power** | | |
| **2014** | $365,435 - $868,526 | $90,899 | $456,333 - $959,425 |
| **2015** | $475,902 - $1,115,375 | $210,571 | $686,472 - $1,325,946 |
| **2016** | $569,585 - $1,329,723 | $171,999 | $741,583 - $1,501,722 |
| **2017** | $610,933 - $1,426,195 | $148,349 | $759,282 - $1,574,544 |

Source: Data Requests CS-12 and CS-21, and Auditor Analysis

Finally, Exhibit X-23 takes these calculations a step further to show what the potential annual cost savings could have been from reduced interest expense of using the money pool at an interest rate of 1.5666% as of December 31, 2017. The range of potential average annual cost savings for the FE-PA companies for 2014 through 2017 is approximately $39,000 to $75,000 that consisted of $11,000 to $22,000 at Met-Ed, $15,000 to $28,000 at Penelec, $2,500 to $5,000 at Penn Power, and $10,000 to $20,000 at West Penn Power.

**Exhibit X – 23**

**FirstEnergy Pennsylvania Companies**

**Potential Annual Cost Savings from Reduced Borrowing from Money Pool**

**For the Period 2014 through 2017**

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Cost Savings - Primary at 5.5% to 11%** | **Cost Savings - Secondary at 2.5%** | **Total Potential Cost Savings** |
| **FE-PA Companies** | | |
| **2014** | $25,855 - $59,010 | $6,818 | $32,673 - $65,828 |
| **2015** | $30,603 - $71,460 | $13,677 | $44,280 - $85,137 |
| **2016** | $31,800 - $74,196 | $8,899 | $40,699 - $83,095 |
| **2017** | $30,225 - $71,769 | $8,457 | $38,682 - $80,226 |
|  | **Met-Ed** | | |
| **2014** | $7,674 - $18,035 | $2,024 | $9,698 - $20,059 |
| **2015** | $9,022 - $22,095 | $3,756 | $12,779 - $25,851 |
| **2016** | $9,002 - $22,053 | $1,769 | $10,771 - $23,822 |
| **2017** | $8,604 - $21,068 | $3,169 | $11,773 - $24,237 |
|  | **Penelec** | | |
| **2014** | $11,041 - $24,142 | $3,016 | $14,057 - $27,158 |
| **2015** | $12,219 - $27,513 | $6,000 | $18,219 - $33,513 |
| **2016** | $11,712 - $26,420 | $3,711 | $15,422 - $30,131 |
| **2017** | $9,838 - $23,301 | $2,523 | $12,361 - $25,824 |
|  | **Penn Power** | | |
| **2014** | $1,414 - $3,227 | $354 | $1,769 - $3,581 |
| **2015** | $1,906 - $4,379 | $623 | $2,529 - $5,002 |
| **2016** | $2,163 - $4,892 | $725 | $2,888 - $5,617 |
| **2017** | $2,212 - $5,058 | $440 | $2,653 - $5,498 |
|  | **West Penn Power** | | |
| **2014** | $5,725 - $13,606 | $1,424 | $7,149 - $15,030 |
| **2015** | $7,455 - $17,473 | $3,299 | $10,754 - $20,772 |
| **2016** | $8,923 - $20,831 | $2,695 | $11,618 - $23,526 |
| **2017** | $9,571 - $22,343 | $2,324 | $11,895 - $24,667 |

Source: Data Requests CS-12, CS-21, and CS-36, and Auditor Analysis

**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.**

**Finding No. X-7**

**Prior Situation** – The FE-PA companies were not consistently tracking and measuring their performance standards for new service installations. The companies established policies and procedures for all service installations which were categorized as follows: new service installations requiring no construction of electric facilities; new service installations requiring construction of electric facilities; and service upgrades. Ten-day provisioning standards had been established for new service installations requiring construction of electric facilities and service upgrades and three-day provisioning standards for new installations requiring no construction of electric facilities. However, performance relative to the ten-day provisioning standard was only monitored by Penelec and Penn Power and performance relative to the three-day provisioning standard was not monitored by any of the FE-PA companies. Consequently, there was little data available to evaluate the FE-PA companies actual provisioning performance, but scheduling delays and service extensions complaints tracked internally increased from 93 in 2009 to 221 in 2013, indicating declining performance.

**Prior Recommendation** – Monitor all new service installation performance to ensure new service installations are being completed within the targeted deadlines.

**Follow-up Finding and Conclusion No. X-7 – The FE-PA companies monitor all new service installations resulting in improved performance.**

**Current Review** – As previously mentioned, PMRs were created in 2015 to address specific performance objectives and other regulatory requirements and are to be reviewed in conjunction with the ELT Reports. Based on the various stages of development of the PMRs, some PMR metrics commenced at different times. Reporting of New Service Installation – Non‑Construction metrics became available for the July 2015 PMR and New Service Installation – Construction reporting became available for the September 2015 PMR.

As shown in Exhibits X-24 and X-25, the performance of achieving the target completion dates for new service installations requiring no construction and new service installations requiring construction is being tracked and performance has improved. The FE-PA companies have improved at completing customer requests for new service installations requiring no construction within three days, and new service installations requiring construction within ten days.

Some new service installations requiring construction do not meet the ten-day window. The FE-PA companies stated that there are multiple reasons that an individual work request for new service installations requiring construction may not achieve the ten-day window. These include:

* Inclement weather – There may be delays in completing the work due to weather conditions, as conditions may not be safe to complete the work.
* Timeliness of entering data – When a work request is not closed in the system within the ten-day window, regardless of the work being completed on time, it will be counted as not meeting the criteria.
* Backlog of work – Even though the FE-PA companies work through this type of issue, this does cause a request to exceed the window from time-to-time.

**Exhibit X – 24**

**FirstEnergy Pennsylvania Companies**

**Percentage of New Service Installations Requiring No Construction**

**Completed Within Three Days**

**For the Period April 2015 through December 2017**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Jan 2015** | **Feb 2015** | **Mar 2015** | **Apr**  **2015** | **May 2015** | **Jun**  **2015** | **Jul 2015** | **Aug 2015** | **Sept 2015** | **Oct 2015** | **Nov 2015** | **Dec 2015** |
| **Met-Ed** |  |  |  | 99.86% | 99.87% | 99.89% | 100% | 100% | 100% | 100% | 100% | 100% |
| **Penelec** |  |  |  | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| **Penn Power** |  |  |  | 99.64% | 99.19% | 99.76% | 100% | 100% | 100% | 100% | 100% | 100% |
| **West Penn Power** |  |  |  | 98.49% | 99.79% | 99.74% | 100% | 100% | 100% | 100% | 100% | 100% |
|  | **Jan 2016** | **Feb 2016** | **Mar 2016** | **Apr**  **2016** | **May 2016** | **Jun**  **2016** | **Jul 2016** | **Aug 2016** | **Sept 2016** | **Oct 2016** | **Nov 2016** | **Dec 2016** |
| **Met-Ed** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| **Penelec** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| **Penn Power** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| **West Penn Power** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
|  | **Jan 2017** | **Feb 2017** | **Mar 2017** | **Apr**  **2017** | **May 2017** | **Jun**  **2017** | **Jul 2017** | **Aug 2017** | **Sept 2017** | **Oct 2017** | **Nov 2017** | **Dec 2017** |
| **Met-Ed** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| **Penelec** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| **Penn Power** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| **West Penn Power** | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Source: Data Request CS-6

**Exhibit X – 25**

**FirstEnergy Pennsylvania Companies**

**Percentage of New Service Installations Requiring Construction**

**Completed Within Ten Days**

**For the Period June 2015 through December 2017**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2015** | **Jan**  **2015** | **Feb**  **2015** | **Mar**  **2015** | **Apr**  **2015** | **May 2015** | **Jun**  **2015** | **Jul**  **2015** | **Aug 2015** | **Sept 2015** | **Oct**  **2015** | **Nov 2015** | **Dec 2015** |
| **Met-Ed** |  |  |  |  |  | 70.03% | 75.86% | 83.70% | 91.19% | 91.41% | 98.15% | 98.37% |
| **Penelec** |  |  |  |  |  | 94.23% | 93.92% | 97.21% | 95.21% | 91.74% | 92.60% | 95.67% |
| **Penn Power** |  |  |  |  |  | 94.14% | 92.05% | 97.20% | 99.68% | 95.74% | 97.41% | 99.42% |
| **West Penn Power** |  |  |  |  |  | 88.27% | 82.27% | 81.13% | 91.59% | 93.25% | 92.46% | 96.32% |
|  | **Jan**  **2016** | **Feb**  **2016** | **Mar**  **2016** | **Apr**  **2016** | **May 2016** | **Jun**  **2016** | **Jul**  **2016** | **Aug 2016** | **Sept 2016** | **Oct**  **2016** | **Nov 2016** | **Dec 2016** |
| **Met-Ed** | 98.54% | 97.46% | 99.40% | 98.61% | 98.25% | 99.03% | 98.86% | 97.91% | 98.49% | 98.69% | 98.34% | 98.91% |
| **Penelec** | 97.81% | 99.38% | 99.46% | 99.54% | 98.28% | 99.28% | 98.19% | 99.27% | 99.71% | 99.54% | 99.71% | 99.42% |
| **Penn Power** | 96.84% | 97.35% | 95.71% | 98.31% | 100% | 97.96% | 100% | 98.81% | 99.48% | 99.46% | 98.91% | 98.68% |
| **West Penn Power** | 96.84% | 97.35% | 95.71% | 98.31% | 100% | 97.96% | 100% | 98.81% | 99.48% | 99.46% | 98.91% | 98.68% |
|  | **Jan**  **2017** | **Feb**  **2017** | **Mar**  **2017** | **Apr**  **2017** | **May 2017** | **Jun**  **2017** | **Jul**  **2017** | **Aug 2017** | **Sept 2017** | **Oct**  **2017** | **Nov 2017** | **Dec 2017** |
| **Met-Ed** | 99.29% | 98.88% | 97.59% | 98.74% | 98.96% | 98.53% | 94.72% | 100% | 95.80% | 100% | 97.15% | 97.10% |
| **Penelec** | 99.75% | 100% | 100% | 100% | 99.50% | 99.85% | 99.48% | 99.86% | 99.41% | 99.56% | 99.44% | 99.61% |
| **Penn Power** | 100% | 100% | 99.30% | 100% | 100% | 100% | 100% | 100% | 100% | 99.44% | 98.37% | 97.31% |
| **West Penn Power** | 98.91% | 98.41% | 98.64% | 97.98% | 99.52% | 98.88% | 99.20% | 97.82% | 93.92% | 95.82% | 92.10% | 96.34% |

Source: Data Request CS-6

Presently, the FE-PA companies are not contemplating changing their goal of completing 90% of new service installations requiring construction within ten days to 100%. The companies stated that the improvement in the performance to new service installations is due to increased oversight of the program. The FE-PA companies have established a process to review and proactively monitor new service installations against the current established performance standards. Specifically, reports have been developed and programmed that provide a level of detail necessary to monitor and analyze this type of data consistently across the companies. The process was designed such that service installation data is extracted and reviewed monthly. Any installations that exceed the required timeframe are further analyzed to determine the reason the deadline was not achieved. Improvements and lessons learned are developed and implemented where needed for continuous improvements.

**Follow-up Recommendation – None**

**Finding No. X-8**

**Prior Situation** – As a result of requesting customer meter set location data (i.e., number of meters located inside or outside customer premises) by individual company, the auditors noted that a sizeable number of meters were classified as unknown. The number and percentage of meters classified as unknown for each of the FE-PA companies were as follows:

* Met-Ed – 1,652 or 0.30%
* Penelec – 1,135 or 0.19%
* Penn Power – 1,190 or 0.70%
* West Penn Power – 2,918 or 0.41%

The auditors then requested the same information by customer class for each of the FE-PA companies. However, FirstEnergy Service Corporation’s (FESC’s) Metering and Supports Systems Department responded that this type of information was not readily available nor maintained. Also, the meters designated as unknown had a blank location field attached to the meter record as the meter location field was not a required field in the system of records.

As far as billing information was concerned, the service amperage and rate drove

the selection of the correct meter necessary to bill the customer. Customers were

classified into revenue classes and the rate and classification fields were available in the meter records. FESC’s billing system contained information such as meter location and customer class and could be referenced for a specific customer if needed. Management indicated as a result of multiple mergers that customer account information was not fully converted from system to system and unknown meters accounted for a very small portion of its overall meter totals. Some meters in the FE-PA companies’ service territory were originally placed inside structures, and over time, more meters were placed outdoors during new service installations. Indoor meters were also not considered to be an issue by the FE-PA companies and there were currently no efforts to move meters outside or to classify the unknown meters.

Customer meter information was not readily available by FESC’s Meter and Supports Systems Department to ensure data integrity and reliable data for annual reporting to the PUC. The auditors noted that meter reading by an employee or contractor for the utility and/or problems with a meter may not be properly addressed if a meter is located inside a customer’s premises or the location is unknown and/or accessibility is an issue. Problems could also be exacerbated due to a lack of readily available information interfaced with the customer billing information system such as meter number, meter address, location inside/outside of customer’s property, customer class, customer account number, etc. By maintaining a database of relevant information, a utility can quickly identify information that would be needed for meter reading and billing purposes as well as assist in service restoration efforts to identify locations experiencing a service interruption.

**Prior Recommendation** – Develop and maintain a customer meter record database which provides accurate data for reporting purposes, and eliminate unknown meter

location classifications as part of the Advanced Metering Infrastructure (AMI) implementation process.

**Follow-up Finding and Conclusion No. X-8 – The FE-PA companies have significantly decreased the number of meters requiring location updates.**

**Current Review** – Meter and billing information for each of the FE-PA companies’ customers is maintained within SAP for customer set-up, meter reading, rates, and billing/invoicing. As previously mentioned, PMRs were created in 2015 to address specific performance objectives and other regulatory requirements and are to be reviewed in conjunction with the ELT Reports. Based on the various stages of development of the PMRs, some PMR metrics began at different times. Meters without a Meter Location reporting became available in the July 2015 PMR. As shown in Exhibit X-26, meters requiring location updates have decreased substantially from April 2015 to 2017.

**Exhibit X – 26**

**FirstEnergy Pennsylvania Companies**

**Meters Requiring Location Updates**

**For the Period April 2015 through 2017**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **April 2015** | **2016** | **2017** |
| **Met-Ed** | 749 | 89 | 83 |
| **Penelec** | 146 | 43 | 28 |
| **Penn Power** | 270 | 158 | 0 |
| **West Penn Power** | 18,500 | 287 | 53 |

Source: Data Request CS-8

The FE-PA companies stated that emphasis is placed updating undisclosed meter locations as part of morning job briefings with employees. Also, communications are held with the smart meter deployment vendor to ensure that any necessary updates to the meter locations have been made. Additionally, a report was created and is distributed monthly to meter reading management that summarizes meters without a meter location. Regardless if a meter set is located inside or outside a structure, as smart meter technology is implemented throughout the FE-PA companies, it will be easier to obtain a read.

**Follow-up Recommendation – None**

**XI. HUMAN RESOURCES**

**Background** – The 2014 Focused Management and Operations Audit of the FE-PA companies examined the Human Resources function, which included a review of the FE-PA companies’ HR information systems, policies and procedures, safety programs, training, compensation, benefits, and diversity programs. The Human Resources functions for FirstEnergy and the FE-PA Companies are performed by a combination of personnel within FirstEnergy, FirstEnergy Service Company (FESC), and each of the FE-PA companies. The PUC auditors issued two recommendations in the Human Resources chapter and rated this functional area as needing moderate improvement. In this chapter, the two prior recommendations and two prior situations are reviewed, and two follow-up findings are presented.

**Finding No. XI-1**

**Prior Situation** – There were three safety related measures monitored within the FirstEnergy Corporation (FirstEnergy) Executive Leadership Team (ELT) Reports:

* Occupational Safety and Health Administration (OSHA) Incident Rate,
* Days Away, Restricted work or Transferred (DART) Rate,
* Motor Vehicle Accident Rate (MVAR) (accidents per 1,000,000 miles).

The FE-PA companies shared a corporate objective for the OSHA and DART incident rates to deliver top decile safety performance among members of a panel from the Edison Electric Institute (EEI), and this did not align with less stringent goals established in the ELT reports. This issue was investigated further in the Executive Management chapter, specifically Follow-Up Finding and Conclusion No. III-1. Consequently, the auditors investigated whether the companies were meeting these less stringent safety goals in the ELT reports as shown in Exhibit XI-1.

As can be shown in Exhibit XI-1, only 19 of the 54 individual goals were met by the FE-PA companies for this five-year period (West Penn Power did not have available statistics for these measures until 2011, as it had been recently acquired by FirstEnergy at the time). The auditors concluded adequate resources and appropriate programs appeared to be in place; however, a safety culture issue potentially existed in which a potential disconnect exists between the safety program’s intent and desired results.

**Exhibit XI – 1**

**FirstEnergy Pennsylvania Companies**

**Record of Achieving Safety Goals**

**For the Years 2009 through 2013**



O = OHSA Safety Rate  
D = DART Rate  
M = Motor Vehicle Accident Rate

 = Achieved goal  
X = Did not achieve goal

Source: 2014 Management Audit Exhibit XI-7*.*

**Prior Recommendation** – Conduct a safety culture survey in-order-to identify employee safety related concerns, perceptions, behaviors and implement training, methodologies, equipment, and ergonomic changes which address the primary causes of accidents at the FE-PA companies in-order-to improve actual performance and ensure safety goals are aligned with corporate objectives.

**Follow-up Finding and Conclusion No. XI-1 – The FE-PA companies’ performance regarding safety measures has been a mixed success and the FE-PA companies continue to frequently miss target goals for safety.**

There are numerous current safety programs at the FE-PA companies which are constantly being monitored and improved upon. After the management audit, all four companies conducted safety culture surveys from 2014 to 2016, and the following five focus areas were identified as areas to focus on for these improvements:

* Increase employee engagement,
* Build leadership skills and credibility,
* Improve communications,
* Improve employee recognition, and
* Continue to focus on human performance principles and tools.

Many safety programs were modified or adjusted with these principles in mind. Additionally, newer programs have been implemented in recent years with this approach, and among them are the following:

* Field observers note safety issues and identify these issues without blame assigned to the violating employees (they remain anonymous) to improve the safety program. Trainings or discussions are given to all employees as learning opportunities (November 2014).
* Union representation is now involved in higher level safety meetings (January 2015).
* Safety awards are now given to individuals, departments, and shops (May 2015).

Another recent change to the safety program is how vehicular accidents are measured and monitored. The FE-PA companies previously measured MVAR, but implemented a new index called Chargeable Motor Vehicle Accident (CMVA) Rate as of 2014. This measures accidents that were preventable by FirstEnergy employees. In other words, if a FirstEnergy vehicle was hit due to someone else’s fault this would have previously been included in the MVAR statistics whereas now it is not included in the CMVA statistics. Because of this, it would not be reasonable to compare the previous MVAR rates to the CMVA rates for analysis of improvement.

Overall, the auditors determined that, similar to the situation in the prior management audit, the safety programs in place appeared to be effective and suitably managed. To determine if there were improvements in safety measurement results, data from 2014 to 2017 (the timeframe directly after the management audit) was compared to the results from 2009 to 2013 (the recent timeframe before the prior management audit). Performance has notably improved for Met-Ed and West Penn Power, and slightly diminished at Penelec and Penn Power (though it should be noted that Penelec and Penn Power were historically the two better performing distribution companies with regards to safety measures, and the four companies are now very comparable). Exhibits XI-2, XI-3, and XI-4 display current performance for the FE-PA companies with regards to OSHA, DART, and CMVA rates, respectively. For OSHA and DART, performance for the previous timeframe is also displayed for comparison purposes. Because CMVA is a new measurement, this could not be compared to earlier rates.

**Exhibit XI – 2**

**FirstEnergy Pennsylvania Companies**

**OSHA Rates Comparison**

**For the Years 2009 through 2013 and 2014 through 2017**



Source: 2014 Management Audit Exhibit XI-5; Data Requests HR-5 and HR-12; and auditor analysis

**Exhibit XI – 3**

**FirstEnergy Pennsylvania Companies**

**DART Rates Comparison**

**For the Years 2009 through 2013 and 2014 through 2017**



Source: 2014 Management Audit Exhibit XI-5; Data Requests HR-5 and HR-12; and auditor analysis

**Exhibit XI – 4**

**FirstEnergy Pennsylvania Companies**

**CMVA Performance**

**For the Years 2014 through 2017**



Source: Data Requests HR-5 and HR-12

Along with reviewing current performance against previous performance for each distribution company, the auditors also reviewed the appropriateness of the safety goals. The OSHA goal is comprised of three levels with attainable financial incentives associated with each level. The first level or threshold goal represents the industry average for the EEI panel companies. The second level or target goal represents the EEI panel top quartile performance. Finally, the third level or stretch goal represents the EEI panel top decile performance. The DART goal is not incentivized and is based on the EEI panel top quartile performance. Because numerous distribution companies define and calculate vehicular accidents differently, the FE-PA companies have established the CMVA goal based on the history of the four distribution companies as opposed to the EEI panel.

Although the auditors feel that the proper safety programs are in place to improve OSHA, DART, and CMVA performance, the companies are still not consistently meeting their ELT established safety goals. Exhibit XI-5 displays the varied results in meeting safety goals since the management audit.

**Exhibit XI – 5**

**FirstEnergy Pennsylvania Companies**

**Record of Achieving Safety Goals**

**For the Years 2014 through 2017**



O = OHSA Safety Rate  
D = DART Rate  
C = Chargeable Motor Vehicle Accident Rate

 = Achieved goal  
X = Did not achieve goal

Source: Data Requests HR-5 and HR-12 and auditor analysis

Note that there were no specific CMVA goals in 2015 and 2016 because FirstEnergy experimented with a new goal called “Triple Play” which was the sum of OSHA goals, perfect attendance, and CMVAs. This has since been discontinued. The goals for 2018 for OSHA, DART, and CMVA are as follows:

* OSHA Rate Target: 0.98
* DART Rate Target: 0.58
* CMVA Rate Target: 1.82

A causal analysis conducted by the auditors revealed no apparent deficiencies related to the safety programs. Most reportable safety incidents were minor in nature, with approximately half of the incidents caused by three issues: improper body positioning, uneven or slippery surfaces, and tick or insect bites. The other half of the incidents were distributed among approximately 30 other causal descriptions. With the five focus areas for improvement and a continued concentration on education, training, and ergonomic improvements, the auditors believe that the FE-PA companies will continue to trend towards improved safety results. However, because the industry appears to be trending towards improvement as well, albeit at a slightly faster pace, the companies will need continued improvements to the safety program.

**Staff’s Recommendation** – **Continue to periodically review and improve upon the existing safety programs to attain performance consistent with established safety goals.**

**Finding No. XI-2**

**Prior Situation** – Absenteeism was monitored in the ELT Reports to determine the effectiveness of controlling the employee absence rate. Goals for absentee rates were established for each of the FE-PA companies and updated annually. Goals for each of the companies were established for all employee classifications i.e., bargaining and non‑bargaining unit positions. However, when viewed separately, each of the bargaining units incurred absentee rates above the goals set for each of the respective companies. In contrast, the absentee rates incurred for the non-bargaining unit employees for each of the FE-PA companies was significantly better.

The auditors estimated that in 2013, Met-Ed, Penn Power, and West Penn Power could annually save $138,000; $25,000; and $92,000, respectively, if overall absentee rate per employee was reduced to meet each of the FE-PA companies’ respective goals (Penelec was meeting its goal at the time). In addition to financial costs, high absentee rates affect productivity for field operations employees and all operations support employees who are assigned to work with employees who abuse sick time. Although absenteeism was not directly or primarily a cause of reliability and overtime issues (see Chapter VII – Electric Operations Finding and Conclusions Nos. 1 and 2), it was likely that high absenteeism was, in part, a contributing factor.

**Prior Recommendation** – Reduce absenteeism through appropriate enforcement of union contract language regarding provisions for sick leave as well as encouraging employee attendance.

**Follow-up Finding and Conclusion No. XI-2 – The FE-PA companies experienced mixed results from their attempts to reduce absenteeism and are still not consistently meeting absenteeism goals.**

Since the management audit, the FE-PA companies have made changes to the leave policy for non-bargaining unit positions. On January 1, 2016, personal time-off (PTO) was established to replace traditional leave policy options (e.g., vacation, personal, and sick days). Because of this, the data for the non-bargaining unit positions since that time only reflect Short Term Disability (STD), as STD is excluded from the PTO policy. As a result, a true comparison between time periods (pre- and post-management audit) need to be assessed accordingly. To account for this change, the absentee metrics were temporarily discontinued in 2016 for review purposes and the 2017 goals were adjusted. The 2017 goals (hours per year per employee) for Met-Ed, Penelec, Penn Power, and West Penn Power were 51.6, 40.0, 38.2, and 42.4, respectively. These goals are different from the goals reviewed during the management audit and subsequent years (from 2013 up to the 2016 discontinuation). The previous absenteeism goals for Met-Ed, Penelec, Penn Power, and West Penn Power are 41.5, 42.0, 38.5, and 50.8 respectively. Goals were modified based on the PTO/STD changes, each company’s performance, and achievability and were specific to each company.

To address the absenteeism issue subsequent to the management audit, the FE‑PA companies have been monitoring employee absences (short and long-term) and implemented a daily absence report, a healthy incentive program, and the use of a third‑party for medical case management. Additionally, supervisors now have the discretion to meet with employees regarding absence levels to provide counseling or address specific considerations. FirstEnergy briefly introduced an incentive program to reduce absences, but this was discontinued due to a dispute regarding the OSHA Act of 1970 (which involves a variety of employee rights, specifically sick days in this case). As a result, the FE-PA companies eliminated this incentive and recognition program.

The auditors evaluated the absenteeism performance in periods prior and post management audit to determine if the changes implemented by the FE-PA companies produced positive results. Even accounting for the new PTO policy which significantly reduced the absenteeism levels for the non-bargaining unit, three of the companies’ absenteeism performance worsened. Only West Penn Power met its 2017 goals for absenteeism (note that each of the companies has different annual goals which are based on its specific history). The absence rates for each of the companies are detailed in Exhibit XI-6, XI-7, XI-8, and XI-9 (separate bargaining and non-bargaining rates were not available before 2012).

**Exhibit XI – 6**

**Metropolitan Edison Company**

**Absenteeism Rates**

**For the Years 2009 through 2017**



Source: 2014 Management Audit Exhibits XI-9, XI-10 and Data Requests HR-10 and HR-16

**Exhibit XI – 7**

**Pennsylvania Electric Company**

**Absenteeism Rates**

**For the Years 2009 through 2017**



Source: 2014 Management Audit Exhibits XI-9, XI-10 and Data Requests HR-10 and HR-16

**Exhibit XI – 8**

**Pennsylvania Power Company**

**Absenteeism Rates**

**For the Years 2009 through 2017**



\* Until 2016 Penn Power statistics are combined with Ohio Edison. 2017 is Penn Power statistics only.

Source: 2014 Management Audit Exhibits XI-9, XI-10 and Data Requests HR-10 and HR-16

**Exhibit XI – 9**

**West Penn Power Company**

**Absenteeism Rates**

**For the Years 2009 through 2017**

****

Source: 2014 Management Audit Exhibits XI-9, XI-10 and Data Requests HR-10 and HR-16

West Penn Power’s 2017 absenteeism performance of 31.9 hours per employee is the lowest of the four FE-PA companies. This is especially significant considering that West Penn Power’s 2011 performance of 79.1 hours per employee was the highest of the companies. Also noteworthy, the absence rate for bargaining unit positions decreased from 60.3 hours in 2012 to 46.4 hours in 2017. As the exhibits illustrate, West Penn Power is the only distribution company in which absenteeism for the bargaining unit positions decreased after the management audit, whereas Met-Ed, Penelec, and Penn Power have experienced minor to significant absenteeism increases. Consequently, Met-Ed, Penelec, and Penn Power should make appropriate adjustments to each company’s specific work culture or methodologies as needed to emulate West Penn Power’s success including continued or more stringent employee counselling and monitoring, and additional requests for physician approval for absence, etc.

The auditors estimate based on the average salary of a bargaining unit position that West Penn Power has realized an annual savings of approximately $215,000 when comparing absenteeism rates between the periods 2014 and 2015 and the periods 2016 and 2017. If the bargaining units from Met-Ed, Penelec, and Penn Power were to achieve the same absenteeism performance as that of West Penn Power in 2017, the auditors estimate that each could realize approximate annual savings of $330,000, $140,000, and $12,000, respectively.

**Staff’s Recommendation** – **Continue efforts to reduce absenteeism through improved sick leave monitoring, counseling, and sharing of best practices.**

**XII. FLEET MANAGEMENT**

**Background** – FirstEnergy Fleet Services is part of the FirstEnergy Service Company (FESC), which provides support to each of the FE-PA companies including vehicle and equipment acquisition, leasing, and disposal, manages the Fleet Management Information System, and facilitates licensing, permitting, and compliance with regulations. In addition, each of the FE-PA companies has its own Manager of Regional Fleet Services, each of whom reports to their respective Director of Operations Support. Each Manager of Regional Fleet Services is responsible for maintaining fleet equipment and directing supervisors of the mechanic work force and fleet support personnel at one or more maintenance repair facilities engaged in the inspection and repair of fleet vehicles and equipment. The 2014 Focused Management and Operations Audit of the FE-PA companies examined the Fleet Management function, which included a review of maintenance, operating, and safety policies and procedures, staffing levels, acquisition practices, vehicle maintenance and operating costs, utilization levels, and benchmarking analyses. The PUC auditors issued four recommendations in the Fleet Management chapter and rated the functional area as needing moderate improvement. In this chapter, four prior recommendations and four prior situations are reviewed and four follow‑up findings and one follow-up recommendation are presented.

**Finding No. XII-1**

**Prior Situation** – FirstEnergy’s Vehicle Replacement Criteria was established in 1997 and had not been subsequently updated. For Asset Classes 1 to 6, replacement was based on either age (i.e., 10, 12, or 15 years) or mileage (i.e., 100,000, 125,000, or 150,000 miles). For Asset Classes 7 to 9, replacement was based on strictly age (i.e., 15 years). The FE-PA companies practice with respect to vehicle replacement deviated from FirstEnergy’s Vehicle Replacement Criteria. As shown in Exhibit XII-1, the percentage of vehicles in the fleet greater than 15 years old at Met-Ed, Penelec, Penn Power, and West Penn Power were 38.0%, 45.7%, 24.7%, and 13.3%, respectively. FirstEnergy’s Vehicle Replacement Criteria specified that these vehicles should have been replaced.

The Manager of Regional Fleet Services at each of the FE-PA companies reviewed the list of vehicles qualifying for replacement, along with applicable maintenance records, to determine the most appropriate units to replace. Also, vehicle utilization reports were reviewed to ensure that the replacement units were still needed. However, a formal vehicle replacement policy should have been developed which clearly indicated the Vehicle Replacement Criteria and applicable maintenance records, utilization reports, etc. that are to be utilized when making vehicle replacement decisions.

**Exhibit XII – 1**

**FirstEnergy Pennsylvania Companies**

**Fleet Age Analysis by Vehicle Class**

**As of August 2013**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Class** | **Met Ed** | | | **Penelec** | | | **Penn Power** | | | **West Penn Power** | | |
| **Units > 15 Yrs** | **% of Total** | **Avg Age (Yrs)** | **Units > 15 Yrs** | **% of Total** | **Avg Age (Yrs)** | **Units > 15 Yrs** | **% of Total** | **Avg Age (Yrs)** | **Units > 15 Yrs** | **% of Total** | **Avg Age (Yrs)** |
| 1 | 55 | 27.8% | 9.0 | 31 | 14.9% | 8.0 | 4 | 15.4% | 6.0 | 3 | 1.3% | 5.0 |
| 2 | 47 | 25.0% | 7.2 | 60 | 26.5% | 8.3 | 0 | 0.0% | 6.0 | 6 | 3.7% | 6.2 |
| 3 | 13 | 56.5% | 16.9 | 16 | 64.0% | 16.0 | 2 | 33.3% | 11.0 | 0 | 0.0% | 5.3 |
| 4 | 40 | 23.8% | 7.0 | 47 | 18.1% | 7.3 | 7 | 10.6% | 6.0 | 0 | 0.0% | 6.7 |
| 5 | 22 | 53.7% | 10.5 | 44 | 66.7% | 13.0 | 4 | 30.8% | 9.0 | 3 | 9.7% | 7.0 |
| 6 | 12 | 75.0% | 20.0 | 7 | 70.0% | 18.0 | 6 | 85.7% | 17.0 | 0 | 0.0% | 4.4 |
| 7 | 100 | 52.4% | 21.3 | 261 | 79.8% | 22.0 | 30 | 48.3% | 18.0 | 79 | 33.8% | 13.0 |
| 8 | 14 | 70.0% | 20.2 | 38 | 80.9% | 21.0 | 1 | 14.3% | 12.0 | 11 | 50.0% | 14.0 |
| 9 | 34 | 82.9% | 21.2 | 75 | 75.8% | 20.0 | 8 | 100.0% | 26.0 | 20 | 37.0% | 13.0 |
| **Totals** | **337** | **38.0%** | **14.8** | **579** | **45.7%** | **14.8** | **62** | **24.7%** | **12.3** | **122** | **13.3%** | **8.3** |

Source: 2014 Management Audit Exhibit XIII-8

**Prior Recommendation** – Develop a written vehicle replacement policy.

**Follow-up Finding and Conclusion No. XII-1 – A written vehicle replacement policy was implemented in November 2014.**

**Current Review** – The FirstEnergy Vehicle and Equipment Acquisition Policy (Acquisition Policy) was implemented in November 2014 and takes into consideration vehicle and equipment replacement criteria when deciding to replace a vehicle. If a vehicle meets the mileage and age criteria for replacement, its maintenance records and utilization are then further analyzed to make a final decision on whether replacement is warranted. Consideration is given to the vehicle’s overall condition. The replacement decision is made at the operating company level by those who are familiar with how the vehicle is performing. A 15-year-old bulldozer, which has a replacement criterion of 15 years, may last for another 15-20 years. Therefore, an operating company may continue to use the respective equipment or vehicle if the analysis indicates it is in good condition and still useful.

The Acquisition Policy was updated in 2017 to include instructions on using and entering a new unit request via the Fleet Services Web App. When new unit requests are submitted electronically, they are then routed for the proper approval(s) based on which of the companies is involved and the total dollar value of the unit being requested. The Acquisition Policy covers the acquisition of any motor vehicle, trailer and/or piece of equipment that falls under the FirstEnergy Asset Classes 1 through 9. The only exceptions to the Acquisition Policy are airplanes and construction equipment used directly in coal handling such as backhoes and rail cars. All vehicle and equipment acquisitions are to be coordinated with FirstEnergy Fleet Services, even when FirstEnergy Supply Chain is involved. This is to ensure the asset is accounted for properly for depreciation and asset tracking along with making sure all paperwork, including title and bill of sale, is issued under the correct entity’s legal name. All vehicle and equipment acquisitions are to be done on a one for one basis (i.e., replacing an existing unit which should be identified upfront when possible). The Replacement Criteria is shown in Exhibit XII-2.

**Exhibit XII – 2**

**FirstEnergy Pennsylvania Companies**

**Vehicle and Equipment Replacement Criteria**

|  |  |  |  |
| --- | --- | --- | --- |
| **Asset Class** | **Asset Class Description** | **Replacement Criteria** | |
| **(Either Mileage, Age or Both)** | |
| **Age (Years)** | **Mileage** |
| 1 | Light Duty | 10 | ≥100,000 |
| 2 | Medium Duty | 10 | ≥100,000 |
| 3 | Heavy Duty | 12 | ≥125,000 |
| 4 | Aerial Trucks | 15 | ≥150,000 |
| 5 | Digger Derrick Trucks | 15 | ≥150,000 |
| 6 | Crane Trucks | 12 | ≥125,000 |
| 7 | Trailers | 15 | 15 years |
| 8 | Construction Equipment | 15 | 15 years |
| 9 | Forklifts, Mowers, Misc. | 15 | 15 years |

Source: Data Request No. VE-7.1

Vehicles are replaced in accordance with the Acquisition Policy implemented in November 2014, with consideration given to the vehicles condition, maintenance and utilization records. Exhibit XII-3 shows, by vehicle class, the number of units greater than 15 years old and the average age as of March 6, 2018.

**Exhibit XII – 3**

**FirstEnergy Pennsylvania Companies**

**Fleet Age Analysis by Vehicle Class**

**As of March 2018**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Class** | **Met-Ed** | | **Penelec** | | **Penn Power** | | **West Penn Power** | |
| **Units > 15 Yrs** | **Avg Age (Yrs)** | **Units > 15 Yrs** | **Avg Age (Yrs)** | **Units > 15 Yrs** | **Avg Age (Yrs)** | **Units > 15 Yrs** | **Avg Age (Yrs)** |
| 1 | 4 | 9.4 | 8 | 7.2 | 0 | 7.4 | 1 | 8.2 |
| 2 | 14 | 8.3 | 10 | 8.4 | 0 | 10.7 | 9 | 9.3 |
| 3 | 11 | 14.1 | 11 | 15.2 | 4 | 17.4 | 7 | 9.2 |
| 4 | 3 | 7.4 | 6 | 7.2 | 0 | 9.2 | 21 | 9.0 |
| 5 | 2 | 5.5 | 6 | 6.7 | 0 | 9.7 | 6 | 10.3 |
| 6 | 5 | 13.1 | 4 | 14.1 | 0 | 4.4 | 0 | 7.8 |
| 7 | 147 | 22.3 | 210 | 22.2 | 28 | 17.9 | 106 | 16.4 |
| 8 | 18 | 21.9 | 40 | 22.7 | 4 | 17.4 | 10 | 15.9 |
| 9 | 30 | 22.5 | 57 | 21.8 | 8 | 22.9 | 24 | 15.5 |
| **Totals** | **234** | **13.3** | **352** | **14.0** | **44** | **12.6** | **184** | **11.5** |

Source: Data Request No. VE-7.8

From August 2013 to March 2018, Met-Ed, Penelec, and Penn Power reduced the number of vehicles greater than 15 years old from 337 to 234, 579 to 352, and 62 to 44, respectively, whereas the number of vehicles greater than 15 years old for West Penn Power increased from 122 to 184 over the same period. FirstEnergy indicated that the number of vehicles greater than 15 years old for West Penn Power increased from 122 to 184 because it had a slightly newer fleet in August 2013. From August 2013 to March 2018, the number of vehicles in Asset Classes 1-6 for Penn Power, Penelec, and Met-Ed decreased from 23 to 4, 205 to 45, and 189 to 39, respectively, while the number of vehicles in Asset Classes 1-6 for West Penn Power increased from 12 to 44 over the same period. From August 2013 to March 2018 for the FE-PA companies combined, the total number of vehicles in Asset Classes 1-6 decreased from 429 to 132.

**Follow-up Recommendation – None**

**Finding No. XII-2**

**Prior Situation** – At the time of the prior Management Audit in 2013, FirstEnergy’s Fleet Services Department did not have adequate vehicle fuel disbursement controls, nor did it track fuel usage by individual vehicle. The FE-PA companies operated over 43 on‑site fueling stations with 44 diesel and 34 unleaded fuel pumps throughout the Pennsylvania service territory. Fuel cards were used if a vehicle was outside the service territory or during storm emergencies. Off-site fuel was purchased using either Wright Express (WEX) or Comdata fuel cards. West Penn Power and Penn Power used WEX fuel cards while Met-Ed and Penelec used Comdata fuel cards.

During the auditor’s fieldwork in 2013, management indicated that there were no administrative controls (i.e., systems or processes) to control fuel disbursements and record on-site refueling of vehicles. However, during audit staff field site visits to a repair facility in Reading, the fuel station was found to contain a fuel management system which was disabled after the GPU merger with FirstEnergy in 2001. While Met‑Ed and Penelec disabled their fuel management systems, West Penn Power and Penn Power did not have fuel management system capabilities or a process to control fuel disbursements and record individual vehicle refueling. Thus, the FE-PA companies did not track fuel usage by vehicle from any of the on-site fueling stations. In 2012, the FE-PA companies used over 1.49 million gallons of diesel fuel and over 698,000 gallons of gasoline at a total cost of just over $10 million. The practices used for refueling vehicles allowed for theft and prevented the companies from regularly tracking fuel usage by individual vehicle. Fuel usage could only be tracked via bulk fuel delivery shipment to the individual on-site fueling stations.

**Prior Recommendation** – Install adequate mechanisms/controls at fueling stations to control fuel disbursements and track fuel usage by vehicle.

**Follow-up Finding and Conclusion No. XII-2 – The FE-PA companies were unable to substantiate their decision-making process to not implement fuel disbursement mechanisms/controls at its on-site fueling stations.**

**Current Review** – The FE-PA companies obtained quotes for fueling station controls in June 2015. Vendor bids for fueling station controls ranged from $643,000 to $892,000. This included equipment, software, maintenance, and installation costs. The companies indicated that they evaluated the implementation of fueling station controls later in 2015 and decided not to install such controls after determining that the costs of installing fueling station controls were prohibitive when compared to the savings offered. However, when asked to provide the documentation for the related costs and savings, the FE-PA companies were unable to provide this information. In addition, an outside consultant, hired by FirstEnergy to help identify cash flow improvements, also concluded that the costs for installing fueling station controls was not justified and ultimately did not result in enough savings to be gained. Based on these claims, the FE-PA companies decided not to pursue the installation of fueling station controls. Upon further questioning, the FE-PA companies indicated that a direct cost/benefit analysis was not completed.

Establishing vehicle refueling controls and tracking fuel usage by individual vehicle is considered good business practice and would not only provide security against theft but would also enable management to further gauge the operating effectiveness of individual vehicles and the overall fleet. However, fueling station controls should only be implemented when the benefits exceed the costs of installation. Although the FE-PA companies indicated that they evaluated the implementation of fueling station controls, and concluded that installation was not cost effective, they were unable to provide a cost/benefit analysis to support their conclusion. In 2017, the FE‑PA companies used approximately 577,000 gallons of gasoline and 1.39 million gallons of diesel fuel at a total cost of approximately $5.4 million.

**Follow-up Recommendation – 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.**

**Finding No. XII-3**

**Prior Situation** – The FE-PA companies had numerous vehicles that reported no monthly usage during 2012. In 2012, the percentage of vehicles not used monthly at Met-Ed, Penelec, Penn Power, and West Penn Power ranged from approximately 18% to 33%, 17% to 31%, 19% to 26%, and 22% to 56%, respectively. This equated to approximately 510 (19%) to 935 (34%) class 1-6 vehicles with no reported monthly usage in 2012.

Management indicated that no or low mileage usage could occur due to reasons ranging from lack of mileage reporting, employee absences related to extended sick leave, specialty vehicles that are only used on an as needed basis, vehicles pending disposal, and vehicles recently placed into service. The auditors felt that these explanations were insufficient to account for all the zero mileage vehicles. Moreover, if the users of the vehicles were not properly reporting their mileage upon using a vehicle, corrective action should have been taken to enforce the administrative controls established to ensure vehicle mileage was reported as required.

The Manager of Regional Fleet Services at each of the FE-PA companies was responsible for reviewing such vehicles monthly and determining why the units had not been used. Although the managers were supposed to ensure that all vehicles with no usage were still useful, there were still far too many vehicles with no usage.

The auditors felt that a utilization analysis should have been performed periodically (e.g., quarterly) to identify vehicles that had little or no usage and that those vehicles no longer considered useful should be eliminated. Utilization for vehicles in classes 4-6 (i.e., aerial trucks, digger derrick trucks, and crane trucks) should have been tracked on an hourly and a mileage basis because these types of vehicles often sit at a work site. Adding hourly usage data for classes 4-6 would have led to better decisions regarding maintaining or eliminating such vehicles.

Vehicles which were rarely driven still need to be maintained by Fleet Services on a regular basis. The FE-PA companies spent $1,645 on average per vehicle on parts and labor for its Class 1 through 6 vehicles in 2012 with approximately 19% to 34% of the vehicles not being used in-a-given month.

Without performing a detailed analysis of the vehicles not used or effectively utilized in 2012, the auditors were unable to determine which vehicles could be eliminated from the fleet to reduce maintenance expenses (i.e., parts and labor). In addition, the FE-PA companies would also realize a one-time benefit from the sale of any vehicles deemed no longer useful to their respective fleets.

**Prior Recommendation** – Evaluate the need and/or usefulness of vehicles that report zero monthly usage and eliminate underutilized vehicles as appropriate.

**Follow-up Finding and Conclusion No. XII-3 – A vehicle usage analysis was completed resulting in the elimination of excess vehicles in the FE-PA companies.**

**Current Review** – The vehicle usage analysis was a five-month study which analyzed employee to vehicle counts and took usage and staffing projections into consideration. The analysis was completed in October 2014 which resulted in 31 FE-PA companies’ vehicles identified as excess (seven at Penn Power, three at West Penn Power, eleven at Penelec and ten at Met-Ed). The FE-PA companies also instituted administrative controls to better ensure mileage is reported correctly as well as to investigate instances when zero mileage is reported. This includes the issuance of monthly reports listing vehicles with zero usage for the month. These vehicles are then further investigated for cause (i.e., the FE-PA companies will review the zero mileage reports to determine if it is best to keep a vehicle or otherwise). A total of 32 vehicles were retired by March 31, 2015. This included the 31 vehicles identified in the vehicle usage analysis, plus one additional vehicle at Penn Power. Additionally, in 2016, the FE-PA companies retired a total of 11 underutilized vehicles (seven at West Penn Power and four at Penelec). In 2017, the companies retired a total of 14 underutilized vehicles (one at Met-Ed, six at Penelec, and seven at West Penn Power).

One-time savings from the sale of the underutilized retired vehicles and annual maintenance cost savings are shown in Exhibits XII-4 and XII-5, respectively. The FE‑PA companies retired 57 underutilized vehicles in 2015 through 2017, resulting in one-time savings over the period of approximately $59,000 for Met-Ed, $29,000 for Penelec, $12,000 for Penn Power, and $35,000 for West Penn Power and reducing average annual maintenance and repair expenses over the period by approximately $15,000 for Met-Ed, $36,000 for Penelec, $17,000 for Penn Power, and $28,000 for West Penn Power.

**Exhibit XII – 4**

**FirstEnergy Pennsylvania Companies**

**Salvage Value of Retired Vehicles**

**For the Years 2015 through 2017**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2015** | **2016** | **2017** | **Total** |
| **Met-Ed** | $59,080 | $0 | $0 | $59,080 |
| **Penelec** | $28,944 | $0 | $300 | $29,244 |
| **Penn Power** | $11,916 | $276 | $0 | $12,192 |
| **West Penn Power** | $11,662 | $5,685 | $17,619 | $34,966 |
| **Total** |  |  |  | **$135,482** |

Source: Data Request No. VE-7.11 and Auditor Analysis

**Exhibit XII – 5**

**FirstEnergy Pennsylvania Companies**

**Maintenance Cost Savings**

**For the Years 2015 through 2017**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2015** | **2016** | **2017** | **Total** |
| **Met-Ed** | $11,835 | $17,907 | $15,276 | $45,018 |
| **Penelec** | $30,899 | $39,480 | $37,681 | $108,060 |
| **Penn Power** | $3,699 | $22,599 | $25,069 | $51,367 |
| **West Penn Power** | $11,373 | $19,728 | $53,733 | $84,834 |
| **Total** |  |  |  | **$289,279** |

Source: Data Request No. VE-7.11 and Auditor Analysis

**Follow-up Recommendation – None**

**Finding No. XII-4**

**Prior Situation** – As of year-end 2013, the backlog of preventive maintenance (PM) work scheduled in the M5 Fleet System increased while the staffing levels for mechanics who performed the work decreased. FirstEnergy Fleet Services (Fleet Services) performed PM tasks on its fleet, including the annual inspections required by law. PMs were scheduled in the M5 Fleet System based on the criticality of the work and the workload of the repair facility. PMs were prioritized to ensure that critical tasks (e.g., an aerial bucket inspection) were completed and less critical tasks could be deferred (e.g., an oil and filter change). PMs has a compounding impact on safety and reliability. As vehicles age, they required more maintenance. Replacement criteria was based on age or mileage for asset classes 1 through 6 and age alone for asset classes 7 through 9. Significant numbers of the FE-PA companies fleet were older than 15 years.

Based on a study performed by FirstEnergy’s Performance and Process Improvement, the number of mechanics at Ohio Edison/Penn Power, Penelec, and Met‑Ed was reduced by 10, 6, and 3, respectively, from the end of 2008 to the end of June 2013. The number of mechanics at West Penn Power was unchanged from year‑end 2012 to June 2013. While the number of mechanics decreased by 19, the fleet size of the FE-PA companies remained about the same. As a result, a backlog of PM tasks occurred. As shown in Exhibit XII-6, 3,743 PMs or 25% of the FE-PA companies fleet had overdue PMs as of December 31, 2013, including 291, or approximately 2%, considered critical. Furthermore, of the overdue PMs, approximately 2,360 or 63% were greater than 90 days overdue. Without completing preventive maintenance tasks as prescribed in accordance with internal standards and/or manufacturer specifications, vehicle expenses and reliability could be negatively affected. This could result in excessive downtime and potentially prevent the timely repair of electric distribution infrastructure during outage events.

**Exhibit XII – 6**

**FirstEnergy Pennsylvania Companies**

**Overdue Preventive Maintenance Tasks**

**Year-End 2013**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Company** | **% of Fleet with PMs Overdue** | **# of Critical PMs Overdue** | **Total # of PMs Overdue** | **PMs Overdue >90 Days Old** |
| **Ohio Edison/Penn Power** | 33.3% | 180 | 1,797 | 1,189 |
| **West Penn Power** | 23.6% | 68 | 826 | 627 |
| **Penelec** | 11.2% | 20 | 365 | 154 |
| **Met-Ed** | 29.1% | 23 | 755 | 390 |
| **Totals** | 24.9% | 291 | 3,743 | 2,360 |

Source: 2014 Management Audit Exhibit XIII-10

**Prior Recommendation** – Initiate efforts to eliminate or minimize the level of overdue preventive maintenance jobs.

**Follow-up Finding and Conclusion No. XII-4 – The FE-PA companies have significantly reduced the number of overdue critical PM jobs and overdue PM jobs.**

**Current Review** – In December 2014, the FE-PA companies established a plan to reduce overdue critical PM jobs and overdue PM jobs. The plan prioritized work load based on PM jobs due with a strong emphasis on the critical PM jobs to limit the amount overdue. Monthly tracking and reporting of PMs and critical PMs by company and/or location is performed, with reports provided to Fleet Services and higher levels of management to review and monitor progress. Overdue critical PMs and overdue PMs for 2013 to 2017 are shown in Exhibit XII-7 for the FE-PA companies. In addition, overdue critical PMs and overdue PMs for 2017 are shown in Exhibit XII-8 for each of the FE-PA companies.

**Exhibit XII – 7**

**FirstEnergy Pennsylvania Companies**

**Overdue Critical PMs and Overdue PMs**

**For the Years 2013 through 2017**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Type** | **2013** | **2014** | **2015** | **2016** | **2017** |
| **Overdue Critical PMs** | 194 | 59 | 45 | 10 | 4 |
| **Other Overdue PMs** | 2367 | 1270 | 1161 | 497 | 225 |

Source: Data Request No. VE-7.6, 7.13

**Exhibit XII – 8**

**FirstEnergy Pennsylvania Companies**

**Overdue Critical PMs and Overdue PMs**

**2017**

|  |  |  |
| --- | --- | --- |
| **Company** | **Type** | **2017** |
| **Met Ed** | CPM | 1 |
| PM | 52 |
| **Penelec** | CPM | 1 |
| PM | 63 |
| **Penn Power** | CPM | 2 |
| PM | 37 |
| **West Penn Power** | CPM | 0 |
| PM | 73 |

CPM = Critical Preventive Maintenance

PM = All Other Preventive Maintenance

Source: Data Request No. VE-7.7, 7.13

FirstEnergy indicated that items affecting the ability to complete all PMs each month include staffing levels (i.e., vacations, injuries, illness, open positions), increases in mileage (i.e., mutual assistance, storms, projects, etc.), increases in unscheduled work (e.g., a manufacturer warranty recall), and seasonal PMs scheduled to be completed during warmer summer months. The FE-PA companies reduced the number of overdue critical PMs from 194 at year-end 2013 to 4 at year-end 2017, and overdue PMs from 2,367 at year-end 2013 to 225 at year-end 2017.

**Follow-up Recommendation – None**

**XIII. FACILITIES MANAGEMENT**

**Background** – FirstEnergy’s Facilities Management function is coordinated by FirstEnergy’s Real Estate and Facility Services organization. The 2014 Focused Management and Operations Audit of the FE-PA companies examined the Facilities Management function, which included a review of corporate and regional facilities, budgeting and forecasting, leasing versus owned procedures, maintenance policies and procedures, daily operations, etc. The PUC auditors issued one recommendation within the Facilities Management chapter and rated the functional area as needing minor improvement. In this chapter, one prior recommendation and one prior situation is reviewed and one follow‑up finding and no follow-up recommendation is presented.

**Finding No. XIII-1**

**Prior Situation** – FirstEnergy and the FE-PA companies did not have written facilities management policies and procedures. In the 2007 Stratified Management and Operations Audit, a consultant issued a recommendation for the development of facilities management policies and procedures. FirstEnergy accepted the consultant’s recommendation, and indicated progress on drafting and implementing various policies in its annual Implementation Plan Progress Reports filed with the Commission. Upon further review, the auditors found that the recommendation had yet to be implemented. A recommendation was again made, therefore, in the Commission’s Focused Management and Operations Audit issued in November 2014 for FirstEnergy to develop written facilities management policies and procedures.

**Prior Recommendation** – Develop written facilities management policies and procedures to assure business activities between corporate and regional facilities managers are consistent with FirstEnergy policies and procedures.

**Follow-up Finding and Conclusion No. XIII-1 – Detailed policies and procedures have been developed for facility service operations.**

**Current Review** – FirstEnergy developed a document called *Facility Management Practices* in 2015 to provide standard facility management procedures at all FirstEnergy locations. The document includes the following:

* Contracted Services
  + This policy shall apply to all employees required or requested to contract out facility services for:
    - Building maintenance
    - Construction & renovation
    - Electrical
    - Elevators
    - Fire protection
    - Grounds & roads (paving)
    - HVAC
    - Housekeeping
    - Mechanical equipment
    - Painting
    - Plumbing
    - Roof repairs
    - Snow removal
    - Structures and fences
    - Waste removal
  + Facility Management is responsible for contract management of all FirstEnergy facility-related maintenance contracts. The oversight and budgeting of these services reside with each of the companies.
* Facilities Help Desk Services
  + This applies to all employees required/requested to submit maintenance requests, move and change requests, or to report facility safety concerns.
  + Facility Project Management Practices - Capital and O&M Projects
    - This applies to all employees requesting Capital or O&M facility mandatory or maintenance projects, to sustain the operating conditions of their administrative facility.
  + Asset Planning
    - This applies to all employees required or requested to contract facility services for decisions regarding space allocation, planning and design and the acquisition (or replacement), use, maintenance and disposal of furniture and appliance assets.
  + Storm and Emergency Meal Services
    - This policy provides standard facility management practices for food service during storm or other emergency events.

FirstEnergy also provided five additional attachments:

* ***Facilities Management – Projects and Repairs***
  + This policy provides guidelines for the differentiation between projects and repairs for facility work to assign the correct resources. When work is necessary that is covered by the Facilities Department, it must be reviewed with the Facilities Department’s site contact to ensure it is assigned appropriately. The site contact will consider the value of the asset, the intended goal of the work to be performed, the scope of work, the actual result and its impact on the asset’s value, depreciation and equity return.
* ***Corporate Facility Management***
  + This policy assigns financial responsibility by type of work such as Roof Systems, Plumbing and Piping, Communications, Landscaping, etc. Responsibility can be assigned to Corporate, Business Unit, Information Technology, or Security.
* ***Utilities Facility Management***
  + This policy assigns financial responsibility by type of work such as Building Structure, Fire Protection Systems, Site Earthwork, etc. Responsibility can be assigned to Corporate, FirstEnergy Utilities, Security, etc.
* ***FirstEnergy Corp. Workplace Standards*** (dated September 13, 2010)
  + To provide FirstEnergy employees with a safe, well designed and ergonomically supported work environment. This standardized office environment reduces costs and increases efficiency in the management of real estate. To meet these needs, FirstEnergy has approved guidelines for workspace sizes, furniture and equipment to maintain a corporate‑wide, consistent approach to cost, quality, design and health/ safety issues.
* ***Mail Services***
  + To provide consistent practices for corporate-wide mail services such as overnight delivery via courier, UPS World Ship for service to locations not accessible by courier, and U.S. mail for both first class, pre-sort and permit mail.

FirstEnergy has established written policies and procedures to assure consistent business practices between corporate and regional facilities managers.

**Follow-up Recommendation – None**

**XIV. ACKNOWLEDGEMENTS**

We wish to express our appreciation for the cooperation and assistance provided by the officers and staff of FirstEnergy during this Management Efficiency Investigation.

This audit was conducted by Craig Bilecki, Bryan Borres, Timothy Kerestes, and Eric McKeever of the Management Audit Division of the PUC Bureau of Audits.

1. FirstEnergy was formed in 1997, when Ohio Edison Company and its subsidiary, Penn Power merged with Centerior Energy Corp. and its subsidiaries, The Cleveland Electric Illuminating Company and The Toledo Edison Company. In 2001, FirstEnergy merged with GPU, Inc., the owner of Jersey Central Power & Light Company, Penelec, and Met-Ed. In 2011, FirstEnergy merged with Allegheny Energy, Inc., the owner of Monongehela Power Company, Potomac Edison Company, and West Penn Power. FirstEnergy’s principal business segments include: Regulated Distribution, Regulated Transmission, and Competitive Energy Services. The Regulated Distribution segment distributes electricity through FirstEnergy’s ten utility operating companies (FirstEnergy Utilities or FEU) which includes the FE-PA companies. [↑](#footnote-ref-1)
2. The auditors looked at approximately 154 different departments across the four distribution companies related to operations (which included areas such as meter reading which had very minimal overtime), with some departments as small as one specialty worker or a clerk in a service center. [↑](#footnote-ref-2)
3. FirstEnergy changed their termination notification process as a result of receiving two infractions. [↑](#footnote-ref-3)
4. National Fuel Gas Distribution Corporation contracted with outside collection agencies that achieved this performance (11% for primary) from 2012 through 2017. [↑](#footnote-ref-4)