FirstEnergy

800 Cabin Hill Drive
Greensburg, PA 15601

John L. Munsch
Attorney

724-838-6210
Fax: 234-678-2370

January 8, 2016

VIA EFILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17105-3265

Re: Petitions of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company for Approval of Long-Term Infrastructure Improvement Plans Docket Nos. P-2015-2508942; P-2015-2508931; P-2015-2508936; P-2015-2508948 – TUS 1 Data Request

Dear Secretary Chiavetta:

Enclosed for filing in the above-captioned matter are the data request responses of the FirstEnergy companies to the data requests of the Commission's Bureau of Technical Utility Services dated December 11, 2015, and extensions of time therefor. Because the attachements to the responses is voluminous, they will be sent under separate cover to the Commission, along with a CD. A copy of the responses will be distributed to those indicated on the enclosed Certificate of Service.

Very truly yours,

John L. Munsch

Enclosures

cc: Paul T. Diskin, Bureau of Technical Utility Services
pdiskin@pa.gov
Daniel Searfoorce, Bureau of Technical Utility Services
dsearfoorc@pa.gov
David Washko, Bureau of Technical Utility Services
dawashko@pa.gov

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of Metropolitan Edison Company For Approval of its Long-Term Infrastructure Improvement Plan	: : :	**Docket No. P-2015-2508942**
Petition of Pennsylvania Electric Company For Approval of its Long-Term Infrastructure Improvement Plan	: : :	**Docket No. P-2015-2508936**
Petition of Pennsylvania Power Company For Approval of its Long-Term Infrastructure Improvement Plan	: : :	**Docket No. P-2015-2508931**
Petition of West Penn Power Company For Approval of its Long-Term Infrastructure Improvement Plan	: : :	**Docket No. P-2015-2508948**

CERTIFICATE OF SERVICE

I hereby certify and affirm that I have this day served a copy of the Data Request Responses of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company to the December 11, 2015 Data Requests of the Commission's Bureau of Technical Utility Services on the following persons:

Via Electronic Mail & First-Class Mail

Johnnie E. Simms
Bureau of Investigation & Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120
josimms@pa.gov

Daniel G. Asmus
Office of Small Business Advocate
Commerce Tower, Suite 202
300 North Second Street
Harrisburg, PA 17101
dasmus@pa.gov

Charis Mincavage
Vasiliki Karandrikas
Teresa K. Schmittberger
Elizabeth Trinkle
McNees Wallace & Nurick LLC
P.O. Box 1166
100 Pine Street
Harrisburg, PA 17108-1166
cmincavage@mwn.com
vkarandrikas@mwn.com
tschmittberger@mwn.com
etrinkle@mwn.com
Counsel for Met-Ed Industrial Users Group, Penelec Industrial Customer Alliance and West Penn Power Industrial Intervenors

Darryl Lawrence
Office of Consumer Advocate
555 Walnut Street
Fifth Floor, Forum Place
Harrisburg, PA 17101-1923
dlawrence@paoca.org

Dated: January 8, 2016

Respectfully submitted,

John L. Munsch
(PA Attorney I.D. No. 31489)
FirstEnergy Service Company
800 Cabin Hill Drive
Greensburg, PA 15601
(724) 838-6210

Anthony C. DeCusatis
(PA Attorney I.D. No. 25700)
Morgan, Lewis & Bockius LLP
1701 Market Street
Philadelphia, PA 19103-2921
(215) 963-5034

Attorneys for
Metropolitan Edison Company
Pennsylvania Electric Company
Pennsylvania Power Company and
West Penn Power Company

Attachment 1
Data Request TUS-1

Docket Nos. P-2015-2508942, P-2015-2508931, P-2015-2508936, P-2015-2508948

FirstEnergy Companies

For each of the FirstEnergy Companies provide the following:

1) Reference Met-Ed LTIIP Exhibit No.1, page 10, Section B; Penelec LTIIP Exhibit No.1, page, 10, Section B; West Penn LTIIP Exhibit No.1, page 11, Section B; and Penn Power LTIIP Exhibit No.1, page 10, Section B.

   a. Describe in detail the process that will be employed when selecting LTIIP projects to be competitively bid. Describe in detail how bids are solicited for those selected projects. Provide a sample of an RFP. Provide a summary and copy of the procedure(s) controlling the bidding process. Provide an approximate percentage of projects that are to be competitively bid to outside contractors. What determinations and thresholds are used to decide what projects are to be outsourced?

   b. Provide the Contractor of Choice (COC) Guideline procedures. How are COCs evaluated to determine on-going acceptable performance? Provide an example of a formalized Contractor review and approval scorecard with scoring methods and acceptance criteria.

   c. Describe in detail how procurement of supplies and components are verified to be cost effective. Describe the process to ensure scrapped/salvaged copper conductors and electrical components are accounted for and how any credit is flowed back to back to the project and/or other area.

Response:

   a. The Companies create a detailed estimate to determine the number of construction hours needed to complete a project and this is compared to the amount of internal labor hours available (which is balanced with all other concurrent projects). If the Company is unable to meet manpower needs for any project given the timeframe in which it's necessary to be completed, the project is competitively bid. This type of review is typically completed only for the following calendar year and therefore the estimated percentage of projects to be competitively bid is only available for 2016. The estimated percentages for each Company in 2016 are as follows:

Company	Percentage of 2016 Work to be Competitively Bid
Met-Ed	0%
Penelec	68%
Penn Power	60%
West Penn	87%

When a project is identified to be competitively bid, standard bidding procedures and a standard Request for Proposal ("RFP") template is used across all four Companies. See Staff-1-1 Attachment A for a sample RFP. See Staff-1-1 Attachment B for a summary of the bidding process. See Staff-1-1 Attachment C for the standard procedure for sourcing materials and services.

b. Under the COC guidelines, the FirstEnergy Utilities Sourcing Department will issue a RFP to a list of contractors who have a history of successfully completing projects safely, on schedule and at competitive market pricing. After a thorough bid clarification process with the contractors, the responses to the RFP are evaluated by Engineering, Project Management and Supply Chain. A contractor is selected based on qualified and available manpower and equipment resources, understanding of project scope, constructability, management and safety oversight and pricing.

   In order to determine on-going performance, supplier performance is evaluated and tracked for COC and other contractors as well. Contractors are scored according to the contractor review survey scorecard. If there is a deficiency found in any of the scored areas, the contractor is held accountable to improve their performance. If applicable, a Performance Improvement Plan is developed and the Company regularly reviews progress with the contractor through sit down meetings. See Staff-1-1 Attachment D for a sample contractor review survey and scorecard.

c. Supply Chain follows a formalized sourcing procedure to ensure that the Companies receive the best evaluated supplies and components and pricing is a part of this evaluation process. This formalized process is detailed in the standard procedure for sourcing materials and services in Staff-1-1 Attachment C.

   The Companies' Investment Recovery department oversees the disposal of all salvageable items identified in a safe, environmentally controlled, cost effective and legally sound manner. The credit from any salvage is accounted for as an offset to Cost of Removal for each Company. This formalized process is detailed in the standard procedure for investment recovery in Staff-1-1 Attachment E.

Attachment 1
Data Request TUS-1

Docket Nos. P-2015-2508942, P-2015-2508931, P-2015-2508936, P-2015-2508948

FirstEnergy Companies

2) Reference Met-Ed LTIIP Exhibit No.1, page 13; Penelec LTIIP Exhibit No.1, page 13; West Penn LTIIP Exhibit No.1, page 14; and Penn Power LTIIP Exhibit No.1, page 13.

a. Provide an annual expenditure cost-by-year table for each of the Infrastructure Improvement Initiative categories as was done for 2016 thru 2020, for the prior 5 years 2010 thru 2014.

Response:

a. See Staff-1-2 Attachment A for Met-Ed, Penelec, Penn Power and West Penn's actual annual expenditure by year for years 2010 through 2014 as it relates to each Infrastructure Improvement Initiative category submitted in its LTIIP.

As referenced in West Penn LTIIP Exhibit No. 1 page 8, the Allegheny Energy and FirstEnergy accounting systems were not consolidated until April 2012. Because of differences between the two accounting systems, financial data for West Penn is not available for 2010, 2011, and a portion of 2012 that identify utility plant in service on the same basis and for the same functional categories that FirstEnergy employs (and which West Penn began to employ after April 2012). As a result, it is not possible to make accurate comparisons of data between the pre-Merger period and periods after April 2012 that isolate and focus upon reliability-related plant additions. Consequently, West Penn is providing actual annual expenditure by year beginning in April 2012 through 2014 as it relates to each Infrastructure Improvement Initiative category submitted in its LTIIP.

The planned expenditures contained in the Companies' filed LTIIP for 2016-2020, and reflected in Staff-1-2 Attachment A, do not include other expenditures which are a part of the Companies' typical capital budget. Capital funding may be included in each Company's budget in a variety of categories for which the Companies' are not seeking recovery.[1] Therefore, the LTIIP Investment Initiatives are not representative of all funds which are dedicated towards maintaining and improving reliability.[2]

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[1] For example, during the period of 2016-2020, Penelec estimates spending, as a part of its normal capital budget, approximately $44M, which is not included in its LTIIP, on the following initiatives, as to which it is also making additional LTIIP investments that are included in its LTIIP: Installation of SCADA devices; Network Vault Rehabilitation; Porcelain Cutout Replacement; Review Coordination – Installation of Protective Devices; Wood Pole Reinforcement and Wood Pole Replacement.

[2] *See* figures 3 and 4 of Exhibit 1 of the Petition for Approval of the Long-Term Infrastructure Improvement Plan for Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company, Docket Nos. P-2015-2508942, P-2015-2508936, P-2015-2508931, P-2015-2508948.

Attachment 1
Data Request TUS-1

Docket Nos. P-2015-2508942, P-2015-2508931, P-2015-2508936, P-2015-2508948

FirstEnergy Companies

3) Reference Met-Ed LTIIP Petition, page 11, section F-18; Penelec LTIIP Petition, page 11, section F-18; West Penn LTIIP Petition, page 10, section F-18; and Penn Power LTIIP Petition, page 10, section F-18.

a. Explain in detail how the programs' impacts on SAIDI and SAIFI were/are calculated. Provide a chart with expected SAIDI/SAIFI impacts for each year of the LTIIP. Explain in detail how the outage response costs (and/or avoided costs) are calculated and how the outage costs (and/or avoided costs) and program benefits are compared and any metrics or calculations related to those comparisons.

Response:

a. Met-Ed, Penelec, Penn Power and West Penn calculated the impacts on SAIDI and SAIFI for each Investment Initiative in its LTIIP for years 2016 to 2018. The SAIDI and SAIFI impacts represent the potential avoidance of outages, assuming an outage probability, and are based on historic reliability data from 2012 through 2014. Circuit specific outage data was utilized to calculate reliability impacts and included information such as the number of customers, customers interrupted (CI) and customer minutes interrupted (CMI). Reliability impact assumptions were based on actual performance data when available as well as data which supported before and after performance from historical data. When actual data was not available, expected impacts were estimated based on similar projects. The SAIDI and SAIFI impacts for projects that will be completed on the same circuit were not calculated independently, rather, relied on the impact from the first project to determine the base level data for the second project and so on. See Staff-1-3 Attachment A for the estimated reliability impacts by year for 2016 to 2018.

Forecasting future reliability performance can be challenging and predicting reliability benefits beyond 2018 is difficult and not particularly meaningful due to the fact that the Companies rely on reliability performance from the prior three years for their calculations. Additionally, in some cases, the specific project location has not yet been determined or, if it has, may change based on evaluation of actual performance. LTIIP projects in 2019 and 2020 were chosen based on historical trends with proven results. Reliability and equipment failure trends will be analyzed on an ongoing basis to assess the impact of on-going investments. The companies have identified projects that will be necessary in future years to maintain reliability performance at the levels established through 2018. However, incorporating actual data throughout the next two years will help to determine the specific circuits and projects. Using updated performance metrics will help to maintain a priority of

projects chosen for overall impact and funding required to improve service to our customers.

Additionally, the Companies will continue to evaluate Worst Performing Circuits to identify projects that will help improve reliability performance. Circuits are analyzed for potential improvement solutions based on the projects that have already been completed on that circuit and options that may be available to provide additional improvement. Least cost alternatives to improve reliability are continually evaluated, but if lower cost alternatives are completed and specific circuits continue to perform poorly in comparison to other circuits, higher cost solutions must be considered. Overall impact to customers affected and duration of outages are reviewed for consideration of cost effectiveness of implementing the next best project for a poorly performing circuit.

Going forward, the Companies plan to employ a two-part methodology that will evaluate the benefits and cost-effectiveness of their respective LTIIP.

The first part of the methodology will involve calculating the reliability benefits realized as a result of completing the various LTIIP Investment Initiatives. The Companies expect that the completion of distribution system improvements will result in the reduction of CI and/or CMI for the circuits which work is performed. For example, a project which targets a reduction in equipment failures for a specific circuit is expected to demonstrate a reduction in equipment failures.[3] However the outage type and location can have an effect on system wide actual reliability benefits. These benefits will be calculated similarly to the reliability improvement estimates by using actual circuit specific outage and reliability data over a time period, such as three years, after the project is completed.

The second part of the methodology will involve evaluating outage cost trends. Outage costs are calculated using various budget line items such as the unscheduled repair of overhead and underground facilities, line failure follow-up orders and funds allocated towards storm repairs (excluding Major Event outages). Improving reliability is expected to reduce the cost of outages when the outage is avoided (i.e. SAIFI), however, the actual cost reductions may not be apparent in a given year due to the location of an outage and the number of customers impacted.[4] Over time, and considering consistent weather, the trend for overall outage costs should decrease. These benefits will likely be calculated using outage cost data gathered over a time period, such as five years, and then compared to historical outage costs.

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[3] Replacing porcelain cutouts, before their failure, is an example of how an outage may be avoided. Installing fuses on an unprotected distribution line segment in an example of how an outage scope may be reduced by limiting the number of customers interrupted by an outage.

[4] An outage caused by a downed pole is an example of an outage cost that would remain the same despite the number of customers affected. However, CI and/or CMI could be smaller as a result of a new fuse that was installed on that line segment. An outage that can be restored remotely by using SCADA is an example of a type of outage where the response cost would be lower since a crew may not need to be dispatched on overtime to restore outaged customers but could repair the faulted circuit on straight time the next business day.

This methodology will determine the effectiveness of the projects and programs that comprise the LTIIP and will determine that they remain prudent and cost-effective. Thus, the Companies will continuously review their respective plans and will assess the effectiveness of the identified projects and programs in relation to actual performance results.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of Metropolitan Edison Company	:	
For Approval of its Long-Term	:	**Docket No. P-2015-2508942**
Infrastructure Improvement Plan	:	
Petition of Pennsylvania Electric Company	:	
For Approval of its Long-Term	:	**Docket No. P-2015-2508936**
Infrastructure Improvement Plan	:	
Petition of Pennsylvania Power Company	:	
For Approval of its Long-Term	:	**Docket No. P-2015-2508931**
Infrastructure Improvement Plan	:	
Petition of West Penn Power Company	:	
For Approval of its Long-Term	:	**Docket No. P-2015-2508948**
Infrastructure Improvement Plan	:	

VERIFICATION

Linda L. Moss, President, Pennsylvania Operations, FirstEnergy Service Co., states that the facts above set forth are true and correct to the best of her knowledge, information and belief, and that she expects to be able to prove the same at a hearing held in this matter. The statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: January 7, 2016

LINDA L. MOSS