**PENNSYLVANIA**

**PUBLIC UTILITY COMMISSION**

**Harrisburg, PA 17105-3265**

Public Meeting held December 21, 2017

Commissioners Present:

Gladys M. Brown, Chairman

Andrew G. Place, Vice Chairman, Statement

Norman J. Kennard

David W. Sweet

John F. Coleman, Jr.

|  |  |
| --- | --- |
| Petition of UGI Utilities Inc. – Electric Division for Approval of its Long-Term Infrastructure Improvement Plan | Docket Number:  P-2017-2619834 |

**OPINION AND ORDER**

**BY THE COMMISSION:**

Before the Commission for consideration is the Petition for approval of the Long-Term Infrastructure Improvement Plan (LTIIP) of UGI Utilities Inc. – Electric Division (UGI-ED or Company). UGI-ED filed its LTIIP on August 16, 2017. Copies of the LTIIP were served on the statutory advocates.

On Sep 15, 2017, the Office of Small Business Advocate (OSBA) filed comments and concluded the LTIIP is inadequate as filed and requested UGI-ED be given an opportunity to supplement its filing to: provide a reasonable explanation for the cost increases; and clarify inconsistencies in the LTIIP noted by the OSBA. OSBA Comments at 8. Specifically, the OSBA expressed its greatest concern with 4 of the 17 LTIIP project categories that accounted for about 75 percent of the accelerated spending above UGI‑ED’s historical baseline. The OSBA also noted concerns related to the increased costs of several of the other LTIIP project categories.

On September 28, 2017, UGI-ED filed reply comments to the OSBA addressing each of the concerns noted by OSBA. The OSBA Comments and UGI-ED Reply Comments are addressed herein in the discussion of the required elements of the LTIIP.

On November 15, 2017, via a Secretarial Letter, the Commission extended its consideration period to December 22, 2017. The Commission’s Final Implementation Order requires a 120-day consideration period, which would have ended on December 14, 2017.[[1]](#footnote-1)

On Nov 17, 2017, via a Secretarial Letter, the Commission issued a request to UGI-ED to provide more supporting data and details regarding cost-effectiveness, and certain of the LTIIP project categories.

On Dec 1, 2017, UGI-ED filed response to Secretarial Data Request.

No other comments were received.

**BACKGROUND**

On February 14, 2012,Governor Corbett signed into lawAct 11 of 2012, (Act 11),[[2]](#footnote-2) which amends Chapters 3, 13 and 33 of Title 66. Act 11, *inter alia*, provides jurisdictional water and wastewater utilities, electric distribution companies (EDCs), and natural gas distribution companies (NGDCs) or a city natural gas distribution operation with the ability to implement a DSIC to recover reasonable and prudent costs incurred to repair, improve or replace certain eligible distribution property that is part of the utility’s distribution system. The eligible property for the utilities is defined in 66 Pa. C.S. §1351. Act 11 states that as a precondition to the implementation of a DSIC, a utility must file a LTIIP with the Commission that is consistent with 66 Pa. C.S. §1352.

The Commission promulgated regulations relating to LTIIPs at 52 Pa. Code §§ 121.1 – 121.8 that became effective December 20, 2014. In accordance with the regulations, an NGDC must include the following elements in its LTIIP:[[3]](#footnote-3)

1. Types and age of eligible property;
2. Schedule for its planned repair and replacement;
3. Location of the eligible property;
4. Reasonable estimates of the quantity of property to be improved;
5. Projected annual expenditures and measures to ensure that the plan is cost effective;
6. Manner in which replacement of aging infrastructure will be accelerated and how repair, improvement or replacement will maintain safe and reliable service;
7. A workforce management and training program; and
8. A description of a utility’s outreach and coordination activities with other utilities, PennDOT and local governments on planned maintenance/construction projects.

**UGI-ED’S LTIIP**

UGI-ED is a wholly owned subsidiary of UGI Utilities, Inc., which, in turn, is a wholly owned subsidiary of UGI Corporation. UGI-ED is a corporation organized and existing under the laws of the Commonwealth of Pennsylvania. UGI-ED is in the business of selling and distributing electricity to retail customers with in the Commonwealth, and is therefore a “public utility” within the meaning of Section 102 of the Public Utility Code 66 Pa. C.S. §§ 102, subject to the regulatory jurisdiction of the Commission. UGI-ED, as an electric distribution company (EDC), provides electricity to approximately 62,000 customers in Luzerne and Wyoming counties in Northeastern Pennsylvania. UGI-ED provides service through approximately 1,200 circuit miles of overhead and underground primary distribution lines, and associated equipment and substations.

UGI-ED proposes in its LTIIP to accelerate spending by $39.8 million over a 5‑year period starting in 2018 and ending in 2022. UGI-ED notes it will be utilizing a Fiscal Year (FY) that runs from October 1 through September 30. UGI-ED avers much of its core distribution system is 40 years old or greater. UGI-ED anticipates that the LTIIP will provide the following benefits and opportunities:

* Reduce the number of outages UGI-ED customers experience
* Allow UGI-ED to install additional safety mechanisms
* Improve the reliability of service to UGI-ED customers
* Allow UGI-ED to increase sectionalizing and automation to a target goal of approximately 500 customers per single device
* Otherwise prevent or deter further increase in UGI-ED equipment failure trends.

UGI-ED, in their petition, addressed the eight LTIIP elements required by 52 Pa. Code § 121.3, as discussed below:

**(1) TYPES AND AGE OF ELIGIBLE PROPERTY**

**UGI-ED’s Position**

UGI-ED notes that the types of DSIC-eligible property to be replaced and/or improved by its LTIIP will include poles and towers, overhead and underground conductors, transformers and substation equipment, insulators, circuit breakers, fuses, reclosers, grounding wires, crossarms and brackets, relays, and capacitors and condensers. UGI-ED also provided the following information in its LTIIP regarding certain eligible property:

* Wood poles by age cohort
* 66/13.8 kilovolt (kV) distribution transformers by age cohort
* Underground residential cable by installation year
* 13.8 kV distribution circuit breakers by age cohort

UGI-ED also provided information on each of its 17 LTIIP Infrastructure Initiatives as outlined by Table 1, below.

**Table 1: UGI-ED’s LTIIP Eligible Property Infrastructure Initiative Description** 

**Table 1 (cont’d):** 

**Comments**

No comments were received regarding the types and age of eligible property.

**Resolution**

Upon review of UGI-ED’s LTIIP and supplemental information filed, the Commission finds that UGI-ED’s LTIIP fulfills the requirements of 52 Pa. Code § 121.3(a)(1) by identifying the types and ages of eligible property for which it seeks DSIC recovery.

**(2) SCHEDULE FOR PLANNED REPAIR AND REPLACEMENT OF ELIGIBLE PROPERTY**

**UGI-ED’s Position**

Table 2, below details UGI-ED’s proposed schedule for repair by each of the 17 LTIIP initiatives.

**Table 2: UGI-ED’s LTIIP Eligible Property Replacement Schedule FY 2018 through 2022[[4]](#footnote-4)**



**Comments**

No comments were received regarding the schedule for planned repair and replacement of eligible property.

**Resolution**

Upon review of UGI-ED’s LTIIP and supplemental information filed, the Commission finds that UGI-ED’s LTIIP fulfills the requirements of 52 Pa. Code § 121.3(a)(2) by providing a schedule for planned repair and replacement of eligible property.

**(3) LOCATION OF THE ELIGIBLE PROPERTY**

**UGI-ED’s Position**

UGI-ED avers that the facilities being addressed in the LTIIP are found in all parts of the company’s service territory. As noted, above, UGI-ED only operates in 2 counties. UGI-ED notes that its LTIIP will apply to all of its service territory based on reliability improvement and identified through a review of performance of each of its 41 feeder lines.

**Comments**

No comments were received regarding the location of eligible property.

**Resolution**

Upon review of UGI-ED’s LTIIP and supplemental information filed, the Commission finds that UGI-ED’s LTIIP fulfills the requirements of 52 Pa. Code § 121.3(a)(3) by providing a general description of the location of eligible property.

**(4) REASONABLE ESTIMATES OF THE QUANTITY OF PROPERTY TO BE IMPROVED and**

**(5) PROJECTED ANNUAL EXPENDITURES AND MEASURES TO ENSURE THAT THE PLAN IS COST EFFECTIVE**

**UGI-ED’s Position**

Table 2, above, outlines the estimates of the quantity of eligible property. Table 3, below, outlines UGI-ED’s baseline average capital improvement spending from 2012 through 2015, actual expenditures for 2016, and its projected 2017 and LTIIP expenditures.

**Table 3: UGI-ED Baseline and Planned LTIIP Expenditures FY 2018 through 2022**



UGI-ED notes that funding for LTIIP investments will be provided via incremental capital allocation above otherwise normal baseline levels. UGI-ED avers that as part of its normal business practices, the Company will consider additional cost recovery options that may also address LTIIP related work where it is necessary and appropriate to do so.

UGI-ED notes that it will utilize its line construction contractor for most labor and construction intensive LTIIP projects.[[5]](#footnote-5) UGI-ED periodically contracts for line contractor services though a competitive bid process. UGI-ED notes it will utilize a competitive process for the contractor workforce for other work, as well as material purchases that will assist the company in maintaining cost-effective approach to implementation of LTIIP programs. Work not performed by contractors will be performed by UGI-ED substation and line workers.

UGI-ED provides a bid package which describes in detail manpower and equipment needs, skill requirements, typical work schedules and submission of safety information along with typical terms and conditions which will govern the contract. UGI‑ED then assembles a list of qualified and long-established line construction companies and solicits proposals. UGI-ED’s Line Contractor Bid process consists of a Line Construction Services and maintenance Agreement, Line Contractor Approval Checklist, Description of Contractor Work and Bidding form. All responses received by the RFP deadline are reviewed by UGI-ED personnel utilizing a formal checklist. UGI‑ED. UGI-ED provided the Commission with samples of the above forms.

**Comments**

In its comments, the OSBA expresses its greatest concern with 4 of the LTIIP project categories and the increased spending outlined for those projects. Those projects represented approximately 75% of the LTIIP increase over baseline spending. Specifically, OSBA notes that UGI-ED provided little detail regarding Major Distribution System Improvement Projects. OSBA notes that the spending on this category was projected to increase to 2.5 times the historic level and the lack of detail may present some double-counting of projects. OSBA also notes that UGI-ED’s inclusion of “load growth” in this category may not be DSIC-eligible. OSBA Comments at 3.

OSBA also notes issues with UGI-ED’s Wood Pole Replacements category. OSBA submits that historical and projected pole replacement rate may be inadequate and that the costs per pole replaced significant increase over the course of the LTIIP. *Id.* at 4. OSBA notes there are also apparent discrepancies in the age cohorts and costs related to UGI-ED’s Underground Residential Cable Replacement/Restoration category and asked that UGI-ED clarify its cable replacement plan. *Id.* at 5. OSBA further notes that UGI‑ED’s Substation Transformer Replacements category presents cost estimates without sufficient information regarding historical costs. *Id.* at 6.

The OSBA expresses other concerns related to details on projected LTIIP costs as compared to the baseline expenditures for several of the other LTIIP project categories. *Id.* at 6-7. Those categories are:

* Right-of-Way Reliability Relocations
* PennDOT Facility Relocations
* Distribution Automation
* Porcelain Cutout and Insulator Replacements
* Distribution Circuit Breakers
* Distribution Relay Replacements

In its reply comments, UGI-ED addresses each of the OSBA’s concerns. For Major Distribution System Improvement Projects, UGI-ED notes that what is meant by “load growth,” is that improving and modernizing facilities and upgrading capacity could provide an ancillary benefit to accommodate future growth, but it was not a primary goal of this category. UGI-ED also notes that it is not double counting any expenditures in this category in other LTIIP categories. Specifically, UGI-ED notes that the 8 kV and 4 kV Distribution System Conversions are separate, and no expenditures used there are counted in the Major Distribution System Improvement Projects category. UGI-ED Reply Comments at 3-5.

As to Wooden Pole Replacements, UGI-ED notes that has historically replaced or repaired poles on as as-needed basis as part of its inspection and maintenance program. UGI-ED notes this is good utility practice as its maximizes the value of the original cost of the investment. As well, UGI-ED notes that its pole rejection rate was extremely low until recently and the LTIIP will be used to increase its rate of replacement and repair based on this increasing rate. UGI-ED further provides more detail on estimated costs and notes that it included an annual 3% increase in replacement costs per year due to labor increases. *Id.* at 5-7.

Regarding Underground Residential Cable Replacement/Restoration, UGI-ED notes that in the discrepancy related to the percentage of underground residential cable (URD) that is over 30 years old, the chart in the LTIIP showing approximately 19% of URD is over 30 years old is correct. UGI-ED also notes that its program is focused on the replacement of direct buried, bare concentric underground cable. This cable comprises approximately 50% of the remaining cable over 30 years old and UGI-ED estimates a replacement cost of between $50 and $75 per trench foot. UGI-ED estimates it will fully replace this type of cable in 5 to 6 years. *Id.* at 7.

For Substation Transformer Replacements, UGI-ED notes that that it has limited experience with these replacements as it has only replaced 1 transformer in recent history, and that was in 2011. UGI‑ED notes the costs for the 2011 project were approximately $413,000. UGI-ED notes it is in the process of planning for a similar project in 2018 and estimates costs of approximately $474,000. UGI-ED avers it competitively bids such large projects and the LTIIP reflects an estimated annual increase based on the 2018 costs to account for anticipated labor and material cost increases. *Id.* at 8.

UGI-ED’s Reply Comments address the remaining OSBA concerns for the other categories as outlined below:

* Right-of-Way Reliability Relocations – UGI-ED notes the expenditures were based on the average annual spending from 2014 through 2016 and the projects are based on reliability and safety concerns. *Id.* at 9.
* PennDOT Facility Relocations – UGI-ED notes that it expects an increase in relocation requests due to expected increased PennDOT activity and its cost estimates were based on historical averages and the 2016 actual costs, with an expectation that costs may continue to increase. *Id.* at 10.
* Distribution Automation – UGI-ED notes that its LTIIP presented incomplete cost information for the baseline period that did not include the cost of the equipment. UGI-ED corrected the baseline average estimate to $31,000 per location, which is in line with the estimated program amounts. *Id.* at 10-11.
* Porcelain Cutout and Insulator Replacements – UGI-ED based the cost estimates on a prior program that ended in 2009. Taking the average cost per location from 2009 and estimating an annual increase of 5% results in an average of $652 per replacement. UGI-ED plans to spend $50,000 per year on this program, which equates to approximately 80 replacements per year. *Id.* at 11.
* Distribution Circuit Breakers – UGI-ED in its reply comments corrects its information in the LTIIP to show an average of 0.25 replacements in the baseline period, which would be in line with the cost estimates for the number of breakers projected for the LTIIP. *Id.* at 11-12.
* Distribution Relay Replacements – UGI-ED notes that it did not show and unites or expenditures on this category because the 4 units it replaced during that time were with spares and were expensed and not a capital project. The LTIIP reflects an estimate of the relay number and expenditures UGI-ED expects to complete in the time period. *Id.* at 12

**Resolution**

UGI-ED, through its Reply Comments and supplemental information filed with the Commission, has sufficiently explained the reasoning behind its 17 project categories in its LTIIP, as well as its projected increased expenditures over its baseline period. We note that the LTIIP project completions and expenditures are reviewed by the Commission on an ongoing basis, as well as through the required periodic review of LTIIPs as required by 52 Pa. Code § 121.7. These processes allow the Commission to ensure utilities comply with the LTIIP schedule and cost estimates.

Upon review of UGI-ED’s LTIIP and supplemental information filed, the Commission finds that UGI-ED’s LTIIP fulfills the requirements of 52 Pa. Code §§ 121.3(a)(4)-(5) by providing reasonable estimates of the quantity of property to be improved and the projected annual expenditures and means to finance the expenditures and ensure cost effectiveness.

**(6) ACCELERATED REPLACEMENT AND MAINTAINING ADEQUATE, EFFICIENT, SAFE, RELIABLE AND REASONABLE SERVICE TO CUSTOMERS**

**UGI-ED’s Position**

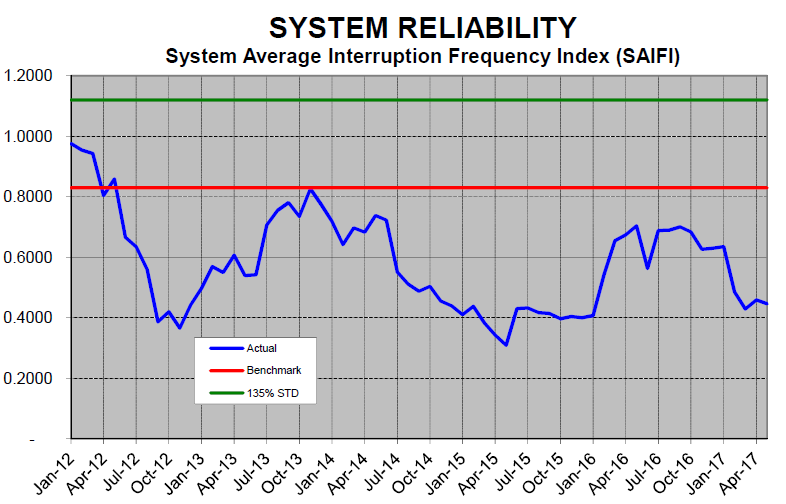
As can be seen in Table 3, above, UGI-ED plans to accelerate its spending on DSIC eligible infrastructure over its average annual baseline spending from 2012 through 2015 and continue its increased spending in 2016 and 2017.

UGI-ED avers the LTIIP will help maintain and improve its reliability performance. The Commission ensures reliable service by requiring EDCs to meet certain reliability performance measures. The Commission established reliability benchmarks and standards to measure the performance of each EDC.[[6]](#footnote-6) The benchmarks and standards established by the Commission are based on four reliability performance metrics adopted by the Institute of Electrical and Electronic Engineers Inc. (IEEE): SAIFI, CAIDI, SAIDI, and MAIFI.[[7]](#footnote-7) Our electric reliability regulations may be found at 52 Pa. Code § § 57.191-198.

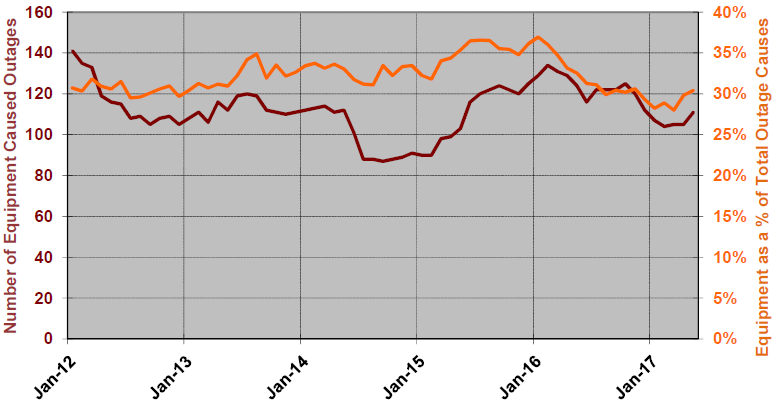
UGI-ED’s quarterly 12-month rolling SAIFI performance from 2012 through the third quarter of 2017 is presented in Table 4, below. UGI-ED notes that while its reliability performance has been better than benchmark, it believes that it needs the LTIIP to maintain and improve this level of performance due to its aging infrastructure.

Table 5, below details the outages experienced by UGI-ED as a result of equipment failure for the same time period as Table 4. UGI-ED notes that outages related to equipment failures have been somewhat steady over this time, but it expects this rate to increase without its LTIIP programs. As an example, UGI-ED notes its rejection rate for inspected utility poles has increased from less than 1% in 2012 to over 7% in 2016. Rejected poles require replacement or reinforcement.

**Table 4: UGI-ED Quarterly SAIFI Reliability Performance**



**Table 5: UGI-ED Outages as a Result of Equipment Failure**



UGI-ED also notes that it plans to review the LTIIPs impacts on reliability performance on a per feeder basis. UGI-ED will review the impact by measuring and comparing post-plan implementation reliability indices with historical indices for each of its feeders on an annual basis. This information would be very useful for review of the LTIIP’s effectiveness and we shall direct UGI-ED to file this information with the Commission.

**Comments**

No comments were received regarding the manner in which the infrastructure replacement will be accelerated.

**Resolution**

Upon review of UGI-ED’s LTIIP and supplementation information filed, the Commission finds that UGI-ED’s LTIIP fulfills the requirements of 52 Pa. Code §§ 121.3(a)(6) by providing a description of the manner in which infrastructure replacement will be accelerated and how repair, improvement, or replacement will ensure and maintain adequate, efficient, safe, reliable, and reasonable service to customers.

**(7) WORKFORCE MANAGEMENT AND TRAINING PROGRAM**

**UGI-ED’s Position**

UGI-ED is subject to the training requirements set forth in OSHA Regulation 29 CFR §1910.269 Electrical Power Generation, Transmission and Distribution, in addition to internally developed training programs. UGI-ED notes that with respect to overhead line maintenance and construction, UGI-ED only hires fully qualified Journeyman linemen. UGI-ED notes that within the UGI-ED Substation Department, on the job training via supervision and senior personnel provide for a progression through the various job positions and associated qualifications. UGI-ED also notes that employees participate in OSHA 1910.269 refresher training and reviews of applicable safety-related work practices and procedures. UGI-ED believes the training, coupled with regular supervisor inspections, ensures employees are qualified and complying with all safety related work practices.

UGI-ED notes that in all cases where contractor personnel work independently of qualified UGI-ED supervision, contractors must confirm and acknowledge during the bid process that employees are OSHA 1910.269 qualified and only those employees will work in restricted areas. UGI-ED also reviews contractor safety and training records, safety rules and programs, drug and alcohol policies and OSHA 300 Logs prior to making a contractor selection. Once on property, UGI-ED requires contract line construction employees to participate in De-Energizing Lines and Equipment training which qualifies the employee to become a “tag-holder” as part of the electric permit process. UGI-ED notes that this training also provides information on UGI facilities, distribution equipment and the standard communication protocols between System Operations and field personnel, particularly during switching operations and system emergencies. UGI-ED also sponsors training on equipotential grounding for all field personnel responsible for installing or overseeing the installation of grounds to de-energize electric conductors.

UGI-ED employs a company supervisor that has direct oversight responsibility for contractor performance including quality, safety, efficiency and billing activities. All personnel, whether company or contractor, have “stop-job” authority if a safety concern is identified, after which UGI-ED operations and safety personnel would investigate and address as necessary. UGI-ED notes it now maintains a dedicated electric safety and training employee who oversees the advancement of electric specific safety policies and procedures to further support the overall safety and training goals with respect to the contractor workforce.

UGI-ED also initiated a construction quality control program which samples both contractor and company line work. UGI-ED notes the program evaluates several key areas when reviewing the final as-built product including overall quality, compliance with construction and safety standards as well as “as-built” versus original design variances. Identified issues are compiled and discussed with the operations team to identify the source of the issue and the subsequent resolution, which may be additional training or even changes to construction standards.

**Comments**

No comments were received regarding the workforce management and training program.

**Resolution**

Upon review of the UGI-ED’s LTIIP and the supplemental information filed, the Commission finds that UGI-ED’s LTIIP fulfills the requirements of 52 Pa. Code § 121.3(a)(7) by providing a workforce management and training program that is designed to ensure that UGI-ED will have access to a qualified workforce to perform the work in a cost‑effective, sage and reliable manner.

**(8) DESCRIPTION OF OUTREACH AND COORDINATION ACTIVITIES WITH OTHER UTILITIES, PENNDOT AND LOCAL GOVERNMENTS ON PLANNED PROJECTS**

**UGI-ED’s Position**

UGI-ED notes that in order to increase construction efficiency in a way that maximizes the effectiveness of replacement capital, efforts shall be made to group planned replacement projects with others in a geographic region. UGI-ED believes such an approach reduces costs associated with mobilization, materials delivery and stockpiling, and also improves inspection efficiency.  UGI-ED notes that geographic planning of projects should occur prior to the start of each fiscal year in order to consider and encompass all planned replacements for the year.  In particular, UGI-ED will coordinate with the PennDOT and local municipalities to time underground cable replacement projects with road projects where possible.  This will reduce costs, as well as reducing the inconvenience to local communities.

**Comments**

No comments were received regarding the description of outreach and coordination activities with other utilities, PennDOT and local governments on planned projects.

**Resolution**

Upon review UGI-ED’s LTIIP and the supplemental information filed, the Commission finds that UGI-ED’s LTIIP fulfills the requirements of 52 Pa. Code § 121.3(a)(8) by providing a description of UGI-ED’s outreach and coordination activities with other utilities, PennDOT and local governments on planned projects and roadways that may be impacted by the LTIIP.

**LTIIP SUMMARY**

The Commission’s review of an LTIIP must determine if the LTIIP:[[8]](#footnote-8)

* Contains measures to ensure that the projected annual expenditures are cost‑effective.
* Specifies the manner in which it accelerates or maintains an accelerated rate of infrastructure repair, improvement or replacement.
* Is sufficient to ensure and maintain adequate, efficient, safe, reliable and reasonable service.
* Meets the requirements of 52 Pa. Code § 121.3(a).

The utility has the burden of proof to demonstrate that its proposed LTIIP and associated expenditures are reasonable, cost effective and designed to ensure and maintain sufficient, safe, adequate, reliable and reasonable service to consumers.[[9]](#footnote-9)

The Commission has reviewed UGI-ED’s LTIIP and any resulting comments. The Commission finds that UGI-ED has meet its burden of proof by demonstrating that its LTIIP contains measures to ensure that the projected annual expenditures are cost-effective, specifies the manner in which it accelerates or maintains an accelerated rate of infrastructure repair, improvement, or replacement, is sufficient to ensure and maintain adequate, safe, reliable, and reasonable service, and meets the requirements of 52 Pa. Code § 121.3(a). Accordingly, UGI-ED’s LTIIP is approved.

The Commission finds UGI-ED’s Long-Term Infrastructure Improvement Plan and manner in which it was filed conforms to the requirements of Act 11 and our Regulations. The plan, as approved herein, is designed to maintain safe, adequate and reliable service and, as such, UGI-ED shall be required to comply with the infrastructure replacement schedule and elements of that plan; **THEREFORE,**

**IT IS ORDERED:**

1. That the Petition for Approval of its Long-Term Infrastructure Improvement Plan filed by UGI Utilities Inc. – Electric Division is approved, consistent with this Order.

2. That UGI Utilities Inc. – Electric Division shall file with the Commission on an annual basis a report of the results of its reliability review of its feeders, and a copy shall be served upon the Commission’s Reliability and Emergency Preparedness Division of the Bureau of Technical Utility Services.

3. That the proceeding at Docket No. P-2017-2619834 be closed.

**BY THE COMMISSION,**

Rosemary Chiavetta

Secretary

(SEAL)

ORDER ADOPTED: December 21, 2017

ORDER ENTERED: December 21, 2017

1. *See Implementation of Act 11 of 2012*, Order Entered August 2, 2012, at Docket No. M-2012-2293611. [↑](#footnote-ref-1)
2. <http://www.legis.state.pa.us/WU01/LI/LI/US/HTM/2012/0/0011..HTM>. [↑](#footnote-ref-2)
3. *See* 52 Pa. Code § 121.3. [↑](#footnote-ref-3)
4. UGI-ED noted, that as mentioned in its LTIIP, plan year projects are identified as part of the annual distribution planning review process which looks to address reliability and growth priorities through a variety projects which may include the creation of new tie-lines, reconductoring lines and adding new distribution feeders. UGI-ED notes the size and duration of individual projects may vary significantly from year to year which may result in a variance in the number of projects completed. [↑](#footnote-ref-4)
5. Those project categories are: wood pole replacements, secondary modernization, distribution overhead failed equipment, facility relocations, rights of way relocations, major system improvement projects, distribution automation, and 8 kV and 4 kV conversions. [↑](#footnote-ref-5)
6. *See* Docket No. M-00991220. [↑](#footnote-ref-6)
7. SAIFI is the system average interruption frequency index, or frequency of outages; CAIDI is the customer average interruption duration index, or duration of outages; SAIDI is the system average interruption duration index, or frequency of sustained outages; and MAIFI is the momentary average interruption frequency index, or occurrences of momentary customer interruptions. There is no benchmark measure for MAIFI. [↑](#footnote-ref-7)
8. *See* 52 Pa. Code § 121.4(e). [↑](#footnote-ref-8)
9. *See* 52 Pa. Code § 121.4(d). [↑](#footnote-ref-9)