
Michael W. Hassell
Principal

mhassell@postschell.com
717-612-6029 Direct
717-720-5386 Direct Fax
File #: 153108

October 20, 2020

VIA ELECTRONIC FILING

Rosemary Chiavetta
Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

**Re: Petition of Peoples Natural Gas Company LLC and Peoples Gas Company LLC for Approval of a Combined Distribution Long-Term Infrastructure Improvement Plan for the Period January 1, 2021 through December 31, 2025
Docket No. P-2020-**

Dear Secretary Chiavetta:

On September 15, 2020, Peoples Natural Gas Company LLC and Peoples Gas Company LLC (the “Peoples Companies” or the “Companies”) filed the above-captioned Petition for Approval of a Combined Distribution Long-Term Infrastructure Investment Improvement Plan (“LTIIIP”) for the Period January 1, 2021 through December 31, 2025 (“Combined Distribution LTIIIP”). The Companies’ proposed Combined Distribution LTIIIP was attached to the Petition as Appendix “A.”

Although the Petition contains the correct information associated with the Combined Distribution LTIIIP, it has come to the attention of the Peoples Companies that the as-filed Appendix “A” contains minor numerical and other errors. In order to correct these errors, the Peoples Companies hereby submit a corrected version of Appendix “A,” and associated appendices 2, 4 and 5, which is attached hereto as **Attachment 1 – Appendix “A” (Corrected)**. In addition, for purposes of clarity, a redline and strikethrough comparison of the as-filed Appendix “A” and Attachment 1 – Appendix “A” (Corrected) is attached hereto as **Attachment**

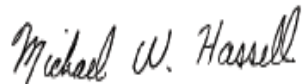
Rosemary Chiavetta
October 20, 2020
Page 2

2. The Peoples Companies note that associated appendices 1 and 3 in the original filing contain no errors and remain unchanged here.

The Peoples Companies hereby request that the Appendix "A" and associated appendices 2, 4 and 5 filed with the Petition on September 15, 2020, be replaced with **Attachment 1** – Appendix "A" (Corrected), for purposes of review and consideration of the Combined Distribution LTIP. The Peoples Companies apologize for the initial error.

Please direct any questions you may have regarding this filing to the undersigned counsel

Very truly yours,

A handwritten signature in cursive script that reads "Michael W. Hassell".

Michael W. Hassell

MWH/kl
Attachment

cc: Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

VIA E-MAIL ONLY

Tanya J. McCloskey, Esquire
Senior Assistant Consumer Advocate
Christy M. Appleby, Esquire
Darryl Lawrence, Esquire
Erin L. Gannon, Esquire
Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th Floor
Harrisburg, PA 17101-1923

John R. Evans, Esquire
Erin K. Fure, Esquire
Sharon Webb, Esquire
Office of Small Business Advocate
555 Walnut Street
Forum Place, 1st Floor
Harrisburg, PA 17101

Richard Kanaskie, Esquire
Erika L. McLain, Esquire
Carrie B. Wright, Esquire
Stephanie Wimer, Esquire
Bureau of Investigation & Enforcement
Commonwealth Keystone Building
400 North Street, 2nd Floor West
P.O. Box 3265
Harrisburg, PA 17105-3265

Todd S. Stewart, Esquire
Hawke McKeon & Sniscak LLP
100 N. 10th Street
Harrisburg, PA 17101

Scott J. Rubin, Esquire
333 Oak Lane
Bloomsburg, PA 17815

John W. Sweet, Esquire
Elizabeth R. Marx, Esquire
Pennsylvania Utility Law Project
118 Locust Street
Harrisburg, PA 17101

Kevin J. Moody, Esquire
General Counsel & VP Government Affairs
Pennsylvania Independent Oil & Gas
Association
212 Locust Street, Suite 600
Harrisburg, PA 17101-1510

Joseph L. Vullo, Esquire
Burke Vullo Reilly Roberts
1460 Wyoming Avenue
Forty Fort, PA 18704

Linda R. Evers, Esquire
Donald R. Wagner, Esquire
Stevens & Lee
111 N. Sixth Street
Reading, PA 19601

Michael A. Gruin, Esquire
Timothy K. McHugh, Esquire
Stevens & Lee
17 N. 2nd Street, 16th Floor
Harrisburg, PA 17101

David T. Fisfis, Esquire
Tishekia Williams, Esquire
Michael Zimmerman, Esquire
Emily M. Farah, Esquire
Duquesne Light Company
411 7th Avenue, 15th Floor
Pittsburgh, PA 16219

Pamela C. Polacek, Esquire
Vasiliki Karandrikas, Esquire
Errin McCaulley, Esquire
McNees Wallace & Nurick LLC
100 Pine Street,
P.O. Box 1166
Harrisburg, PA 17108

Daniel Clearfield, Esquire
Carl R. Shultz, Esquire
Kristine E. Marsilio, Esquire
Eckert Seamans Cherin & Mellott, LLC
213 Market Street, 8th Floor
Harrisburg, PA 17101

Charis Mincavage, Esquire
McNees Wallace & Nurick LLC
100 Pine Street
P.O. Box 1166
Harrisburg, PA 17108

William H. Roberts, II, Esquire
Peoples Service Company LLC
375 North Shore Drive
Pittsburgh, PA 15212

David P. Zambito, Esquire
Jonathan P. Nase, Esquire
Cozen O'Connor
17 North Second Street, Suite 1410
Harrisburg, PA 17101

Melvin Vatz, Esquire
247 Fort Pitt Boulevard, 4th Floor
Pittsburgh, PA 15222

Tanya C. Leshko, Esquire
Alan M. Seltzer, Esquire
Buchanan, Ingersoll & Rooney PC
409 North Second Street, Suite 500
Harrisburg, PA 17101-1357

Kimberly A. Joyce, Esquire
Alexander R. Stahl, Esquire
Aqua America, Inc.
762 West Lancaster Avenue
Bryn Mawr, PA 19010

VIA FIRST-CLASS MAIL

Daniel Killmeyer
184 McKay Road
Saxonburg, PA 16056

Sean D. Ferris
406 Laurie Drive
Penn Hills, PA 15235

Samuel Givens
132 Thunderbird Drive
McKeesport, PA 15135

Charles F. Hagins
420 Goucher Street
Johnstown, PA 15905

Kathleen Tack
103 Clark Avenue
Butler, PA 16002

Gertrude Blair
207 Alameda Road
Butler, PA 16001

Lawrence Sumansky
123 Rosehaven Drive
Renfrew, PA 16053

Susan Hilliard
111 Mayfield Avenue
Butler, PA 16001

Neil Cooper
733 Center Avenue
Butler, PA 16001

Amy and John Beler
311 Country Club Road
Butler, PA 16002

Carol George
107 Graham Road
Butler, PA 16001

Megan Rummel
119 Beechwood Boulevard
Butler, PA 16001

Tim Oesterling
36 Grant Avenue
Butler, PA 16002

Charles Glendening
129 Greenhill Drive
Butler, PA 16001

Dawn Spielvogel
210 Thornley Drive
Butler, PA 16001

Michael W. Hassell

Date: October 20, 2020

Michael W. Hassell

**Attachment 1 –
Appendix “A” (Corrected)**

THE PEOPLES COMPANIES
COMBINED DISTRIBUTION LTIIP (2021-2025)

TABLE OF CONTENTS

INTRODUCTION.....	2
PIPELINE REPLACEMENT STRATEGY	3
STAFFING PLAN	6
AUTOMATED METER READING	8
MEASUREMENT AND REGULATING STATIONS	10
OVER PRESSURE PROTECTION	11
MOUNTAIN ENERGY AND OTHER PLASTIC PIPE	12
COMPONENTS OF THE DISTRIBUTION LTIIP.....	13

INTRODUCTION

This document is the Combined Distribution Long-Term Infrastructure Improvement Plan (“Combined Distribution LTIIIP”) of Peoples Natural Gas Company LLC (“Peoples Natural”) and its sister company Peoples Gas Company LLC, (“Peoples Gas”) (collectively, the “Peoples Companies” or the “Companies”) for the period January 1, 2021 through December 31, 2025. This Combined Distribution LTIIIP replaces the currently-approved, Combined Distribution LTIIIP for the Peoples Companies that was approved by the Pennsylvania Public Utility Commission’s (“Commission”) order entered on January 18, 2018 at Docket Nos. P-2013-2344596 and P-2013-2342745 and No. P-2016-2563033.¹

By Final Order entered January, 24, 2020, at Docket No. A-2018-3006061, et. al., the Commission approved the sale of the Peoples Companies to Aqua America, Inc., now Essential Utilities, Inc. (“Essential”). The closing of this sale occurred on March 16, 2020. As part of the Non-Unanimous Settlement (“Settlement”) approved by the Final Order, the Companies committed to file a modified LTIIIP within six months of the close of the acquisition, which would propose to further accelerate pipeline replacement by at least \$30 million per year to replace approximately 25 additional miles per year of distribution pipe beginning in 2021 (Settlement, ¶ 69). In addition, the Companies committed to submit a five-year plan regarding the Companies’ staffing needs to complete the increased level of projects. The Peoples Companies are filing this LTIIIP to fulfill the requirements of the Settlement, which reflects an acceleration of infrastructure replacement.

In addition to accelerated pipeline replacement, this Combined Distribution LTIIIP reflects several other modifications from the currently-effective LTIIIP. Consistent with the Commission’s previous orders approving prior LTIIIPs for the Peoples Companies, the Peoples Companies will continue

¹ The Peoples Companies current LTIIIP covers the period from 2017-2021.

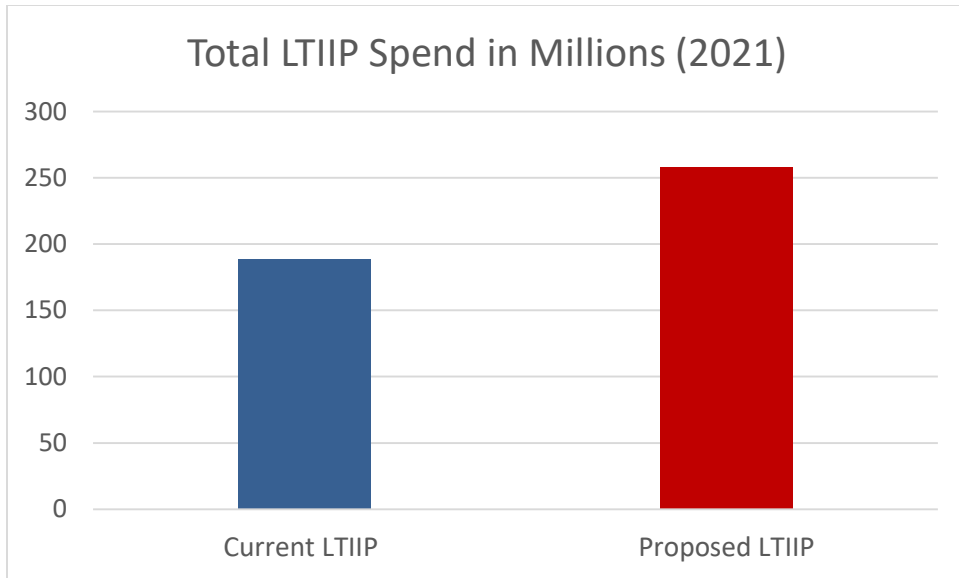
to replace all 'at-risk' customer owned service lines within the scope of its LTIP projects. The projected amount of customer-owned service line replacements has increased over the 2021 – 2025 LTIP period commensurate with the increased replacement of distribution pipe. This combined Distribution LTIP also reflects an increased emphasis on reducing the remaining bare steel DOT transmission lines. The special meter technology/ERT implementation program that began in 2016 for Peoples Natural (former Peoples Division) and Peoples Gas is nearing completion. Peoples Natural is now focusing on the replacement of first generation ERTs at Peoples Natural (former Equitable Division) and projects to complete this in 2020. The Peoples Companies will accelerate the replacement and investment in measuring and regulating (“M&R”) infrastructure to further enhance service reliability. The Companies also are proposing a new program to enhance overall gas safety and reliability by installing additional facilities related to Over Pressure Protection and have included infrastructure acquired in the acquisition of Mountain Energy LTD (“Mountain Energy”) as DSIC-eligible property to be replaced in the future. Each of these areas is detailed in the sections below.

PIPELINE REPLACEMENT STRATEGY

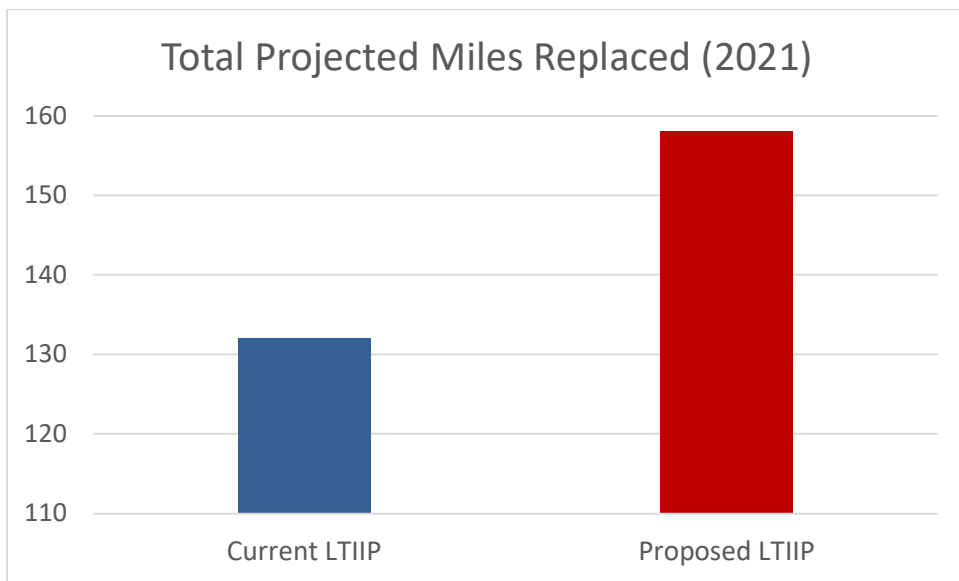
The Peoples Companies will increase main and services line investment over the current LTIP spending plans commencing in 2021 and replace all current at-risk distribution pipeline (approximately 2,740 miles) by 2034. For the five-year period covered in this Combined Distribution LTIP, the Peoples Companies will replace 870 miles of at-risk pipe, over 42,800 company owned services and 27,400 customer owned services. The Companies will target the highest risk segments and develop projects around these segments.

The Companies' Distribution LTIPs include both distribution and transmission pipe. The Peoples Companies operate approximately 163 miles of DOT transmission pipelines, of which approximately 26 miles or 16% are bare steel. Three critical pipelines comprise the majority of these 26 miles. (One pipeline, TP7220/7300, contains 23 miles of bare steel.) Due to their operating characteristics, these three transmission pipelines are considered higher risk. They operate at higher pressure, are more prone to rupture than leaking, and are key supply pipelines serving tens of thousands of customers. For these reasons, this Combined Distribution LTIP has a focus on replacing large portions of the remaining bare steel in these three DOT transmission pipelines. During the period covered by this LTIP the Peoples Companies plan to replace approximately 17 of the remaining 26 miles or over 65%. At the end of the period covered by this LTIP only one transmission pipeline, TP7220/7300 will contain bare steel sections. (the Peoples Companies anticipate the remaining 9 miles will be replaced by the end 2029.) These transmission pipeline replacements are more expensive than distribution pipelines – often costing 3 to 7 times more.

The Peoples Companies' projected expenditures and pipeline replacement amounts for 2021 comply with the aforementioned settlement commitment of an increase of \$30 million in spend per year and, as discussed above, will average 25 miles of additional annual pipeline replacement beginning in 2021. The Companies projected LTIP spend for 2021 is increasing from \$189.1 million as contained in the current LTIP, to \$258.1 million, an increase of \$69 million (36%).



Also, the Companies' projected replacement amount for 2021 is increasing from 132 miles as filed in the current LTIP to 158 miles, an increase of 26 miles (20%).



This LTIP increases the five-year capital investment for Mains and Services from \$822.5 million over the 2017-2021 period to \$1.467 billion over the 2021-2025 period, an increase of \$644.1 million (+78%) above the current LTIP plan. In addition, Peoples Companies projected mileage replacement

increases from the 2017-2021 projection of 610 miles to 870 miles over the 2021-2025 time period, an increase of (43%) or 52 miles per year above the current plan. This projected mileage replacement reflects an average increase of slightly more than 28 miles per year above previous planned mileage replacements for the years 2021-2025. Overall, the total LTIP spending will increase from \$919 million to \$1.556 billion, an increase of \$636.7 million (69%). The increased investments may accelerate the completion of the replacement of at-risk pipe by one year from 2034 to 2033.

The exact number of miles replaced per year can be very challenging to target given the mix of projects, specific township requirements, availability of construction crews and a myriad of logistical challenges. The Peoples Companies plan includes the ability to adjust the total miles replaced year to year based on the logistical items outlined above. For instance, if in 2021 Peoples Companies replace 165 miles in 2021 and exceeds the 160 miles proposed then the additional miles would be reduced over the remaining 5 years of the LTIP and vice versa. Overall, Peoples Companies propose to replace 870 miles over the 2021-2025 time period given that over the 5 year period the risk reduction will still occur as outlined in this document.

STAFFING PLAN

The Peoples Companies have developed construction forecasting software that is used to build models based on the mileage of mainline pipe to be replaced to begin the planning process for each year. The model is used by construction management to establish a model of mainline pipe to be replaced, as well as, new construction pipeline. The model is driven by multiple parameters that factor in the number of miles to be replaced, the annual budget, the number of internal and external crews planned, the productivity by region, the capacity of each region, the capacity of contractors by region,

the number of vehicles per crew, based on type of work, the risk of pipe, the costs by region, the cost of construction support personnel, the capacity of the designers to work on LTIIP projects, the cost and capacity of restoration crews, the capacity to complete work by time of year, and the constraints of management and supervisors. This tool builds a forecast of the crews and resources needed to complete the mileage replacement per month, and shows variances by the multiple areas described above, in terms of the current metrics, and what is needed by the model. Multiple scenarios are then created to balance the model to meet the constraints, or to establish the need to add more crews or vehicles to a region, and/or hire more resources, either internal or external.

The aforementioned model was used as a planning tool for this Combined Distribution LTIIP and the results are summarized on the attached Appendix 1. This model was used to determine the staffing levels required to execute the accelerated plan. Additional staffing will be added in the latter half of 2020. This ramp up in 2020 will allow the staffing to be on boarded, trained, and qualified such that they can begin work in early 2021.

The Peoples Companies are positioned well in the local labor market with regard to wages, benefits and reputation. In addition, the Companies have a very low turnover rate that averages less than 2% and, therefore, do not need to expend substantial effort backfilling vacancies. Recruitment of applicants to fulfill staffing requirements in both field and support positions have been easily met through passive recruitment of applicants. In the second quarter of 2020, the Peoples Companies began recruiting candidates to fill current vacancies and build a pool of vetted candidates in anticipation of the LTIIP ramp up. The most recent job posting resulted in approximately 200 applicants. Due to the Companies' labor market position, and its effective use of screening questions during the application process, the Peoples Companies find that about 55% to 65% of applicants

present as well qualified and move on to the interview phase. This also results in a high success rate for candidates that are interviewed. Likewise, recent recruitment of support staff shows that candidate pools are strong and the Companies do not anticipate a shortage of successful candidates for these positions.

The Peoples Companies will take a two-phased approach to adding contractor crews. The first approach will be to contact the Companies' current contractors to add additional crews. The Peoples Companies currently have eight pipeline contractors who have identified that they have capacity and are willing to add additional crews as the Peoples Companies need them. The second approach will be to add new pipeline contractors to support the ramp up in construction. The Peoples Companies have five new pipeline contractors that have been identified to provide potential future additional construction crews. Initial conversations have been completed with these contractors and the Peoples Companies have informed them that they will be contacted to complete the on-boarding process as soon as the Companies have sufficient additional work to support them.

AUTOMATED METER READING

Automated Meter Reading (AMR) is a technology which allows for consistent and accurate collection of information from a natural gas meter. The technology has been available for more than 40 years, and has continued to evolve into the reliable, multi-faceted systems that are commercially available today. Readings are captured by an AMR device, a unit mounted on the natural gas meter by a trained installer. The AMR device has the ability to constantly monitor and register a customer's natural gas usage. Data is collected and transferred to a centralized database for billing purposes and/or usage analysis. This information is then used to calculate a monthly bill for the customer. AMR

eliminates the need for manual meter readings and more importantly eliminates the need for an “every other month” estimated bill. Actual readings will increase customer satisfaction by improving the accuracy of customer usage data for billing and other data collection purposes and minimize intrusion upon a customer's home or business. Over the years, as AMR technology has been refined, more natural gas distribution companies throughout the country have converted to AMR use. The majority of Natural Gas Distribution Companies in Pennsylvania are using AMR and, due to Act 129, all Electric Distribution Companies are required to implement Smart Meters.

As of August 27, 2020 Encoder Receiver Transmitters (“ERTs”) have been placed on 99.1% of Peoples Natural Gas’ meters and 98.1% of Peoples Gas’ meters. The Peoples Companies will continue to work towards installing ERTs on the remaining meters in 2020.

Peoples Natural has begun replacing the first generation ERTs (aka 40g) on the legacy Equitable Gas meters and the goal is to have all of the meters upgraded by end of 2020.

The Peoples Companies do not propose any changes to the AMR program in this Combined Distribution LTIP. While the Peoples Companies already have Commission approval to include AMR technology as an LTIP category, they received Commission approval to withdraw the proposal to recover AMR-related costs through the DSIC mechanism and reserved the right to present a future claim to recover AMR technology costs through the DSIC mechanism at such time when the Companies actually install AMR support technology. The Companies recognize that such a claim would need to be made through a separate petition that requests modification of their existing DSIC recovery mechanisms. The Companies are not submitting such a petition at this time but reserve the right to do so in the future.

M&R STATIONS

Metering and Regulating ("M&R") stations are critical points where gas pressure and delivery volumes are regulated to ensure that gas delivered into or out of a pipeline system is maintained within a specified and safe operating pressure range. M&R stations are located at points where gas is delivered between higher- and lower-pressure pipelines. An M&R station regulates or adjusts pressure and volumes from a higher-pressure transmission or distribution pipeline for delivery into a lower-pressure distribution pipeline.

Peoples Natural has 2,038 M&R stations and Peoples Gas has 714 M&R stations strategically located on the respective systems.

In its currently approved Combined Distribution LTIP, the Peoples Companies have approval for a five-year term from 2017-2021 for planning upgrades and improvements to approximately 51 M&R stations per year or 255 M&R stations in total. During the five-year term, the Peoples Companies planned to spend \$14.0 million (or \$2.8 million/year) for M&R station upgrades/improvements.

The Peoples Companies do not propose any significant changes to the pace of M&R upgrades and improvements in this Combined Distribution LTIP. The Peoples Companies project to replace 51 M&R stations per year for the duration of this LTIP and spend a total of \$15.5 million, \$3.1 million per year. The planned improvements to these existing M&R stations are necessary in order to maintain safe, adequate, reliable and low cost service for the Peoples Companies' customers. The Companies recognize that in order to recover the costs for this new category through the DSIC mechanism, a separate petition is required. The Companies are not submitting such a petition at this time but reserve the right to do so in the future.

It should be noted that the abovementioned M&R Station Upgrades/Improvements category is separate from the proposed Over Pressure Capital Improvement Program for regulating stations that is explained on page 8, which is focused on mitigating the risk of an incident similar to that which occurred in Merrimack, MA (September 2018) discussed below.

OVER-PRESSURE PROTECTION

The Merrimack, MA Incident in September 2018 and the subsequent findings/recommendations of various regulators, industry groups, and United States Senators, resulted in Operators reviewing their regulated systems and focusing on prevention of a similar incident. The Merrimack Incident involved the over pressurization of a low-pressure distribution system. The Peoples Companies operate over 640 such systems, comprised of over 4,500 miles of low-pressure pipe and over 1,800 regulator stations. The Companies' low-pressure systems serve natural gas to over 450,000 customers.

In an effort to reduce the likelihood of a similar event, the Peoples Companies propose as part of this Combined Distribution LTIIP filing to implement an Over Pressure Capital Improvement Program for regulator stations. The 8-year, \$40 million program, which begins in 2020, consists of three project types intended to mitigate over-pressurization risk: (i) adding remote pressure detection equipment, (ii) adding another form of over pressure protection such as adding relief valves or making station piping modifications depending upon what is best suited for the individual regulator station, and (iii) relocating underground control lines² (which were involved in the Merrimack Incident) to above

² Control lines are small diameter lines that connect the regulator with the downstream system to provide pressure feedback to the regulator. In general, underground control lines can extend a few feet to 30 feet or more downstream of the regulator.

ground locations whenever possible and feasible. The estimated plant additions and costs for the complete program are as follows:

Program Area	Estimated Count	Unit Cost	Ext Cost
Remote detection	960	\$10,000	\$9,600,000
Additional OPP	1145	\$22,000	\$25,190,000
Move sensor lines	500	\$12,000	\$6,000,000
Total			\$40,790,000

For the five year period covered by this LTIP, (a portion of the eight year OPP program), an estimated \$28.6M is included. Projected spending for the term of the Revised Distribution LTIP are presented in Appendices 4 and 5.

MOUNTAIN ENERGY AND OTHER PLASTIC PIPE

On May 13, 2019 Peoples Natural finalized a transaction whereby Peoples Natural became the owner and operator of the System known as Mountain Energy in Greene County. Mountain Energy originally sought to abandon service to its 86 customers. During the pendency of the abandonment proceedings, Mountain Energy was unable to maintain service to its customers, and the Commission issued an emergency order directing Peoples Natural to maintain service. Ultimately, Peoples Natural agreed to acquire the vast majority of Mountain Energy’s facilities and customers. This system is comprised of approximately 20 miles of pipe, 73 customers, and was operated by a third party. The Commission approved the transaction on July 21, 2016 and a condition of that Agreement was that the infrastructure would be integrated into Peoples Natural’s distribution system, and therefore be eligible for the Peoples Companies’ LTIP. Peoples Natural has determined, since it became the Operator, that all 20 miles of the pipe are in poor condition, including the portions believed to be plastic. Much of the

plastic pipe installed in this system by the prior operator was found to be installed above ground. Although the records of this system are very poor, they do show 4 miles of plastic pipe in the 20-mile system. Due to the overall poor condition of both the bare steel and plastic pipe installed in the Mountain Energy System, the Peoples Companies propose that all 20 miles be considered LTIP eligible property and that this pipeline be replaced in accordance with the Peoples Companies' standard risk ranking process and operational conditions.

Although very much the exception, occasionally, the Peoples Companies determine, through operating experience, that some existing in service plastic pipe is at higher risk. Typically this plastic pipe is older, circa 1970s vintage, which may develop cracks over time. When the Peoples Companies identify such higher risk plastic pipe, and it is replaced, the Peoples Companies propose to count this pipe as eligible LTIP infrastructure replacement in terms of miles and dollars.

COMPONENTS OF THE COMBINED DISTRIBUTION LONG-TERM INFRASTRUCTURE IMPROVEMENT PLAN

Act 11 prescribed certain informational components for inclusion in the LTIP, and the Commission's regulations at 52 Pa. Code § 121.3(a) specify eight specific components. For purposes of this Combined Distribution LTIP, the impact upon these eight LTIP components, as a result of the changes described previously herein, are set forth and described below, in comparison to the currently approved LTIPs for the Peoples Companies.

- 1. Identification of types and age of eligible property for which the Peoples Companies will seek DSIC recovery.**

Combined Distribution Appendix 2 details the types and age of all eligible pipeline property for which the Peoples Companies will seek DSIC recovery. With regard to pipeline replacement, the Peoples Companies are not changing the plan to replace all Distribution target pipe, predominantly unprotected bare steel and cast iron pipelines, over an approximate twenty year period. As explained above, the further acceleration of mains replacement may reduce the planned replacement period by one year.

Regarding meter replacements, the Peoples Companies are not proposing to change the rate of annual meter replacements that is set forth in the currently effective LTIP. The Companies determine their annual meter replacements based on meter test results. The meter test program that the Companies follow for diaphragm meters is the statistical sampling method set forth in 52 Pa. Code § 59.21(d). A utility that elects the statistical sampling program shall remain on that program for at least four years. For rotary meters, the Companies perform an audio and visual inspection every two years pre-1990 installation and every five years post-1990 installation and a differential test every ten years in accordance with manufacturer recommendations. The replacement of such meters occurs as a result of issues discovered as a result of this inspection process. In addition, a spin test is performed for all turbine meters once every two years and meters are replaced accordingly.

Under the statistical sampling program, the Peoples Companies divide meters into groups and then test samples from each group annually. For a group to remain in service, at least 80% of the meters in the sample test must meet Commission-required accuracy limits. If a group does not meet those limits, corrective action must be taken, which may consist of removing the entire group from service within four years. The level of meter replacement for

this LTIP was developed using the statistical sampling program. Should a meter family currently in use be condemned during the term of this LTIP, meter replacements will increase beyond projected levels in order to remove those meters from service within a four year period.

Spend on meter replacement/inside meters is \$45 million for the five-year period covered by this LTIP.

2. Schedule for planned repair and replacement of eligible property.

Combined Distribution Appendix 3 contains a schedule showing the strategies employed for the planned repair and replacement of DSIC-eligible plant during the five-year period covered by this LTIP. **Combined Distribution Appendix 3** is based on an analysis of equipment failures, their nature, causes, locations, analysis of reliability performance indicators, and forecasts of future reliability concerns.

3. Location of eligible property.

The table below depicts miles of pipeline in each of the five operating areas that encompass the overlapping service territory.

Location of Eligible Property	PNG	PG	Grand Total
Central	698	0	698
East	337	1	338
North	335	308	643
South	438	14	452
West	470	138	609
Grand Total	2,278	461	2,739

4. Estimate of quantity of eligible property to be improved.

Combined Distribution Appendix 4 shows the estimated quantity of property to be improved during each of the five years covered by this LTIP. The Peoples' Companies propose to continue the rate of annual meter replacement as set forth in the currently effective LTIP.

5. Projected annual expenditures to implement the LTIP and measures to ensure its cost effectiveness.

The Peoples Companies' projected annual expenditures during the term of this LTIP for DSIC eligible replacements are shown in the table contained in **Combined Distribution Appendix 5**.

6. Manner in which replacement of aging infrastructure will be accelerated and how repair, improvement or replacement will maintain adequate, efficient, safe, reliable and reasonable service.

The Peoples Companies accelerated infrastructure replacement programs began in mid-2011 for Peoples Natural with the accelerated replacement of all cast iron pipelines and in 2012 for Peoples Gas with the accelerated removal and replacement of all unprotected bare steel pipeline and associated services, and some catholically protected bare steel and the services associated with these types of pipe. These programs continue today under the currently approved Combined Distribution LTIP. The Peoples Companies' continued commitment to remove aging infrastructure and making improvements to maintain adequate, efficient, safe, reliable and reasonable service is set forth throughout this LTIP.

The repair, improvement or replacement of facilities identified in this LTIP will maintain adequate, efficient, safe, reliable and reasonable service across all companies and divisions.

Historically, pipeline replacement was driven by short term operational and/or economic factors. The Peoples Companies are pursuing a long term strategy for pipeline replacements that is based on increasing the safety and reliability of the system, refocusing on the highest risk segments, while also pursuing projects that have long term benefits to system operations and reduce maintenance costs such as leak survey costs. If the Companies encounter other high risk pipe during one of their planned replacement projects, they typically replace this pipe in order to gain efficiency and further increase the safety of the system.

7. A workforce management and training program designed to ensure that the utility will have access to a qualified workforce to perform work in a cost-effective, safe and reliable manner.

Workforce planning and training is an ongoing process for the Peoples Companies, focused on a “best practices” approach to identifying current and projected staffing needs and required skill sets for the workforce. The following items have been put into place to address workforce needs:

Supervisor Assessment and Development Program –

The Peoples Companies require that all supervisor candidates participate in an assessment program that compares their abilities and behavior competencies to nationwide supervisory norms. Both internal and external hires participate in a comprehensive supervisor orientation and development program that introduces them to the Peoples Companies’ procedures and programs, as well as providing operator qualification (“OQ”) training regarding pipeline compliance, installation, and maintenance programs.

Training

The Peoples Companies provide technical skills training and OQ training at operating locations and a training center for field workers, and works to ensure that the qualifications and work quality meet regulatory and Company expectations. The Peoples Companies believes that this helps the Companies protect system integrity and reliability as well as public safety.

New employees receive seven weeks of training. Typically, the first week of training is their Safety Orientation followed by three weeks of training consisting of construction and maintenance fundamentals training. This includes OSHA compliance and accident prevention training as well as field construction techniques, tool and equipment operation, and other natural gas distribution field work exposure. The construction and maintenance training is complemented by three weeks of on the job training.

When these employees advance to Field Customer Service positions, a similar three-week course is provided that includes safe appliance inspection and maintenance procedures, Natural Fuel Gas Code compliance, and leak and odor investigation. The training department also conducts courses on specific equipment used in the gas distribution industry, including training from manufacturer staff experts.

Operator Qualification Training

In order to ensure that workers involved in DSIC-eligible work are qualified, the Peoples Companies have an extensive Operator Qualification (OQ) Program. The Safety and Training Department is responsible for re-qualifying one-third of the Operations' workforce each year (includes acquiring, developing, and/or providing the training that supports OQ training, maintaining qualification records, and maintaining a database of qualified individuals);

tracking Role assignments and scheduling training sessions; publishing a monthly Role status report; coordinating the development and maintenance of the written Operator Qualification Program, the identification of covered tasks and abnormal operating conditions, the development of evaluation instruments, and the qualification of employees and evaluation of qualified individuals; and verifying contractor compliance.

Company hired Contractors that solely do work for the Peoples Companies are also required to adhere to federal Department of Transportation's Pipeline Safety regulations pertaining to Operator Qualification, Drug and Alcohol Testing and Program Administration, and other requirements designed to assure safe and accurate installation and operation of pipeline components.

The Peoples Companies will verify that all individuals performing covered tasks, including contractor or subcontractor employees, are qualified according to the provision of the Operator Qualification Rule. For the purposes of OQ, the term contractor includes individuals who are not Peoples Companies employees and who perform covered tasks on the Peoples Companies' facilities. Contractors recognized as "Service Line Installers" by the Peoples Companies are exempt from the requirements of this section.

Contractors shall demonstrate compliance to the Peoples Companies' safety requirements by attaining qualification through the Peoples Companies' programs held at the Companies' training facility. Evidence of compliance may include, but is not limited to:

1. Identification of qualified individuals.
2. Date current qualification was completed.

3. Additional information requested by the Peoples Companies pertaining to the qualification of individuals.

All applicable contracts will include provisions specifying contractor Operator Qualification requirements. Inspection of contractor qualification will occur at job sites or at contractor's facilities at the discretion of the Peoples Companies.

Contractors utilizing any non-English speaking employees must make provisions or provide for adequate translation capabilities prior to, and during, training and the performance of work.

8. A description of a utility's outreach and coordination activities with other utilities, Department of Transportation and local governments regarding the planned maintenance/construction projects and roadways that may be impacted by the LTIP.

The Peoples Companies participate in the following utility coordination and outreach activities with municipalities and other utility companies in this area:

- PA-DOT Utility – Highway Liaison Committee (UHLC);
- PA-DOT Annual planning and LET schedule meetings for coordination of projects;
- PA-DOT Individual Project Design/Utility Coordination site visits and meetings;
- PA One Call – Coordinate PA, Complex Tickets;
- PUC Public Crossings Project;
- CONNECT- "Congress of Neighboring Communities"- representatives from CONNECT member municipalities and the utilities meet for planning, networking, and coordination efforts;
- Indiana Public Service Coordinating Committee;
- Johnstown Public Service Coordinating Committee;
- Altoona Public Service Coordinating Committee;
- City of Pittsburgh Department of Mobility and Infrastructure - monthly utility co-ordination meetings;

- Annual- Individual City of Pittsburgh Council meetings on projects per ward;
- Pittsburgh Water & Sewer Authority (PWSA) - Water/Gas co-op renewal projects;
- Project Communications in local papers {i.e. print - Pittsburgh East End Newspaper};
- Allegheny County Department of Public Works- Coordination meetings for upcoming work, pending work, and active work;
- Ad hoc coordination meetings with local governments;
- The Peoples Companies' website, <https://www.peoples-gas.com/street-work/future-work.php>, is updated to reflect Interactive Mapping under the "Future Work" link which can display projects that are coming up in the next two weeks and where customers can check the status of ongoing construction;
- The Peoples Companies send letters requesting local governments to share upcoming paving plans. Responses received are integrated into the Peoples Companies' overall project planning;
- Individual Communications - Project mailings (construction letters and door hangers);
- Individual Communications - Calls are sent to Peoples Companies' customers that are involved within the project scope. These are completed as a reminder that the Companies are coming prior to construction work starting; and
- Individual door to door communications

Distribution Miles	2" Or Less	Over 2" thru 4"	Over 4" thru 8"	Over 8" thru 12"	Over 12"	Grand Total
Bare Steel	219	909	738	201	99	2,166
Cast Iron	-	-	-	-	28	28
Coated Steel	357	1,296	950	345	183	3,131
Copper	2	-	-	-	-	2
Plastic	1,328	2,555	1,050	63	-	4,996
Wrought Iron	3	26	22	2	1	54
Fiberglass	1	3	1	-	-	5
Unknown	3	-	-	-	2	5
Grand Total	1,913	4,789	2,761	611	313	10,387

Transmission Miles	2" Or Less	Over 2" thru 4"	Over 4" thru 8"	Over 8" thru 12"	Over 12"	Grand Total
Bare Steel	-	-	-	4	22	26
Coated Steel	-	2	6	92	27	127
Grand Total	-	2	6	96	49	153

Miles by Vintage	Distribution	Storage	Transmission	Grand Total
1940-1949	374	-	1	375
1950-1959	1,038	-	57	1,095
1960-1969	1,609	1	22	1,632
1970-1979	1,306	-	19	1,325
1980-1989	1,155	-	11	1,166
1990-1999	1,385	-	13	1,398
2000-2009	1,320	1	22	1,343
2010-2019	879	-	8	887
Pre 1940	499	-	-	499
Unknown	823	-	-	823
Grand Total	10,388	2	151	10,541

Services

Material	Unknown	1" OR LESS	Over 1" TO 2"	Over 2" TO 4"	Over 4" TO 8"	Over 8"	Grand Total
Steel	2,257	25,193	138,873	839	164	-	167,326
Copper	18	6,456	823	3			7,300
Plastic PE	4,724	291,281	108,020	1,257	180	12	405,474
Other	32,329	1,750	7,355	56	25	1	41,516
Grand Total	39,328	324,680	255,071	2,155	369	13	621,616

Services by Decade	
Unknown	69
Pre-1940	59,351
1940-1949	7,810
1950-1959	32,743
1960-1969	62,563
1970-1979	99,126
1980-1989	90,559
1990-1999	105,662
2000-2009	91,594
2010-2019	72,139
Grand Total	621,616

Distribution Miles	2" Or Less	Over 2" thru 4"	Over 4" thru 8"	Over 8" thru 12"	Over 12"	Grand Total
Bare Steel	80	128	134	91	2	435
Coated Steel	76	251	251	168	21	767
Plastic	298	468	169	1	0	936
Unknown	7	9	11	0	0	27
Grand Total	461	856	565	260	23	2165

Transmission Miles	6" or Less
Coated Steel	10

Miles by Vintage	Distribution	Storage	Grand Total
1940-1949	28	-	28
1950-1959	96	-	96
1960-1969	407	-	407
1970-1979	312	2	314
1980-1989	277	2	279
1990-1999	314	-	314
2000-2009	292	6	298
2010-2019	237	0	237
Pre 1940	203	-	203
Unknown	1	-	1
Grand Total	2,165	10	2,175

Services							
Material	Unknown	1" OR LESS	Over 1" TO 2"	Over 2" TO 4"	Over 4" TO 8"	Over 8"	Grand Total
Steel	-	-	13,555	34	2	-	13,591
Plastic PE	-	-	47,871	111	2	-	47,984
Grand Total	-	-	61,426	145	4	-	61,575

Services by Decade

Unknown	
Pre-1940	1,200
1940-1950	2,401
1950-1959	3,349
1960-1969	1,095
1970-1979	12,878
1980-1989	12,850
1990-1999	13,200
2000-2009	7,800
2010-2019	6,802
Grand Total	61,575

	Peoples Natural Gas			Peoples Gas		
	Inside	Outside	No Indicator	Inside	Outside	No Indicator
TC Diaphragm Meters	41,336	272,640	197	1,251	55,422	20
Non TC Diaphragm Meters	39,558	295,785	12	129	7,063	14
Rotary TC	509	2254	10	2	39	
Turbine	41	129	41	0	27	10
Rotary Non TC *	480	3,961	84	17	464	51
Grand Total	81,924	574,769	344	1,399	63,015	95

*Some Non TC Rotary Meters may have been retrofitted with TC or have correctors installed compensating for temperature but no way to track.

	PNG Totals	PG Totals
Vintage Year		
Unknown		
Pre-1940	1	28
1940-1949	3	0
1950-1959	3,085	1
1960-1969	23,019	2
1970-1979	40,728	22
1980-1989	144,683	77
1990-1999	142,541	25,639
2000-2009	179,225	23,011
2010-2019	123,752	15,729
Grand Total	657,037	64,509

Peoples Distribution
Long-Term Infrastructure Improvement Plan
 January 1, 2021 through December 31, 2025

Projected Quantity of Property Improved

Peoples Natural Gas

Category	2021				
Distribution Lines - Miles	141				
Company Owned Services - Count	7,000				
Transmission/Storage Lines - Miles	7				
Meter Replacement/Inside Meters	12,000				
Customer Owned Services - Count	4,500				
M&R Station Upgrades/Improvements/OPP	40				
Category	2022	2023	2024	2025	5 Year Total
M&R Station Upgrades/Improvements/OPP	148	169	174	174	813
Company Owned Services - Count	8,050	8,050	9,050	9,100	41,250
Customer Owned Services - Count	5,200	5,200	5,825	5,850	26,575
Meter Replacement/Inside Meters	12,000	12,000	12,000	12,000	60,000
M&R Station Upgrades/Improvements/OPP	40	40	40	40	200

Peoples Distribution
Long-Term Infrastructure Improvement Plan
 January 1, 2021 through December 31, 2025

Combined Distribution Appendix 4
Page 2 of 2

Projected Quantity of Property Improved

Peoples Gas

Category	2021				
Distribution Lines - Miles	10				
Company Owned Services - Count	150				
Transmission/Storage Lines - Miles	0				
Meter Replacement/Inside Meters	830				
Customer Owned Services - Count	85				
M&R Station Upgrades/Improvements/OPP	11				
Category	2022	2023	2024	2025	5 Year Total
M&R Station Upgrades/Improvements/OPP	11	12	12	12	57
Company Owned Services	320	350	375	425	1,620
Customer Owned Services - Count	180	200	215	240	920
Meter Replacement/Inside Meters	830	830	830	830	4,150
M&R Station Upgrades/Improvements/OPP	11	11	11	11	55

Peoples Distribution
Long-Term Infrastructure Improvement Plan
January 1, 2021 through December 31, 2025

Combined Distribution Appendix 5
Page 1 of 2

Projected Annual LTIIP Expenditures

Peoples Natural Gas

Type (in millions \$)	2021	Applicable FERC Account No.				
Distribution Lines	\$121.1	376				
Company Owned Services	\$38.0	380				
Customer Owned Services	\$19.4					
Transmission Lines	\$41.1	367				
Government Relocations	\$10.2	Included in functional pipeline account				
Meter Replacement/Inside Meters	\$7.7	381 & 382				
Other Related Capitalized Costs						
Fleet	\$0.0					
M&R Station Upgrades/Improvements/OPP	\$4.9					
Grand Total	\$242.4					
Type (in millions \$)	2022	2023	2024	2025	5 Year Total	5 year Avg.
Pipeline Replacement	\$156.2	\$228.3	\$220.5	\$220.5	\$987.7	\$197.5
Company Owned Services	\$39.5	\$50.7	\$56.0	\$56.0	\$240.2	\$48.0
Customer Owned Services	\$20.2	\$25.9	\$28.5	\$28.5	\$122.5	\$24.5
Government Relocations	\$10.1	\$10.1	\$10.1	\$10.1	\$50.6	\$10.1
Meter Replacement/Inside Meters	\$7.7	\$7.7	\$7.7	\$7.7	\$38.5	\$7.7
Total	\$233.7	\$322.7	\$322.8	\$322.8	\$1439.5	\$287.9
Other Related Capitalized Costs						
Tools	0.0	0.0	0.0	0.0	0.0	0.0
Fleet	0.0	0.0	0.0	0.0	0.0	0.0
M&R Station Upgrades/Improvements/OPP	6.2	6.8	6.8	6.8	31.5	6.3
Grand Total	\$239.9	\$329.5	\$329.6	\$329.6	\$1471.0	\$294.2

Peoples Distribution
Long-Term Infrastructure Improvement Plan
January 1, 2021 through December 31, 2025

Projected Annual LTIP Expenditures

Peoples Gas

Type (in millions \$)	2021	Applicable FERC Account No.				
Distribution Lines	\$7.6	376				
Company Owned Services	\$1.4	380				
Customer Owned Services	\$1.0					
Transmission Lines	\$2.3	367				
Government Relocations	\$0.3	Included in functional pipeline account				
Meter Replacement/Inside Meters	\$1.3	381 & 382				
Other Related Capitalized Costs						
Fleet	\$0.0					
M&R Station Upgrades/Improvements/OPP	\$1.8					
Grand Total	\$15.7					
Type (in millions \$)	2022	2023	2024	2025	5 Year Total	5 year Avg.
Pipeline Replacement	\$9.9	\$9.9	\$10.4	\$10.5	\$50.6	\$10.1
Company Owned Services	\$1.4	\$1.6	\$1.7	\$1.8	\$7.9	\$1.6
Customer Owned Services	\$1.0	\$1.2	\$1.2	\$1.2	\$5.6	\$1.1
Government Relocations	\$0.3	\$0.3	\$0.3	\$0.3	\$1.5	\$0.3
Meter Replacement/Inside Meters	\$1.3	\$1.3	\$1.3	\$1.3	\$6.5	\$1.3
Total	\$13.9	\$14.3	\$14.9	\$15.1	\$72.1	\$14.4
Other Related Capitalized Costs						
Tools	0.0	0.0	0.0	0.0	0.0	0.0
Fleet	0.0	0.0	0.0	0.0	0.0	0.0
M&R Station Upgrades/Improvements/OPP	2.4	2.8	2.8	2.8	12.6	2.5
Grand Total	\$16.3	\$17.1	\$17.7	\$17.9	\$84.7	\$16.9

Attachment 2

THE PEOPLES COMPANIES
COMBINED DISTRIBUTION LTIP (2021-2025)

TABLE OF CONTENTS

INTRODUCTION.....	2
PIPELINE REPLACEMENT STRATEGY	3
STAFFING PLAN	6
AUTOMATED METER READING	8
MEASUREMENT AND REGULATING STATIONS	10
OVER PRESSURE PROTECTION	11
MOUNTAIN ENERGY AND OTHER PLASTIC PIPE	12
COMPONENTS OF THE DISTRIBUTION LTIP.....	13

INTRODUCTION

This document is the Combined Distribution Long-Term Infrastructure Improvement Plan (“Combined Distribution LTIIIP”) of Peoples Natural Gas Company LLC (“Peoples Natural”) and its sister company Peoples Gas Company LLC, (“Peoples Gas”) (collectively, the “Peoples Companies” or the “Companies”) for the period January 1, 2021 through December 31, 2025. This Combined Distribution LTIIIP replaces the currently-approved, Combined Distribution LTIIIP for the Peoples Companies that was approved by the Pennsylvania Public Utility Commission’s (“Commission”) order entered on January 18, 2018 at Docket Nos. P-2013-2344596 and P-2013-2342745 and No. P-2016-2563033.¹

By Final Order entered January, 24, 2020, at Docket No. A-2018-3006061, et. al., the Commission approved the sale of the Peoples Companies to Aqua America, Inc., now Essential Utilities, Inc. (“Essential”). The closing of this sale occurred on March 16, 2020. As part of the Non-Unanimous Settlement (“Settlement”) approved by the Final Order, the Companies committed to file a modified LTIIIP within six months of the close of the acquisition, which would propose to further accelerate pipeline replacement by at least \$30 million per year to replace approximately 25 additional miles per year of distribution pipe beginning in 2021 (Settlement, ¶ 69). In addition, the Companies committed to submit a five-year plan regarding the Companies’ staffing needs to complete the increased level of projects. The Peoples Companies are filing this LTIIIP to fulfill the requirements of the Settlement, which reflects an acceleration of infrastructure replacement.

In addition to accelerated pipeline replacement, this Combined Distribution LTIIIP reflects several other modifications from the currently-effective LTIIIP. Consistent with the Commission’s previous orders approving prior LTIIIPs for the Peoples Companies, the Peoples Companies will continue

¹ The Peoples Companies current LTIIIP covers the period from 2017-2021.

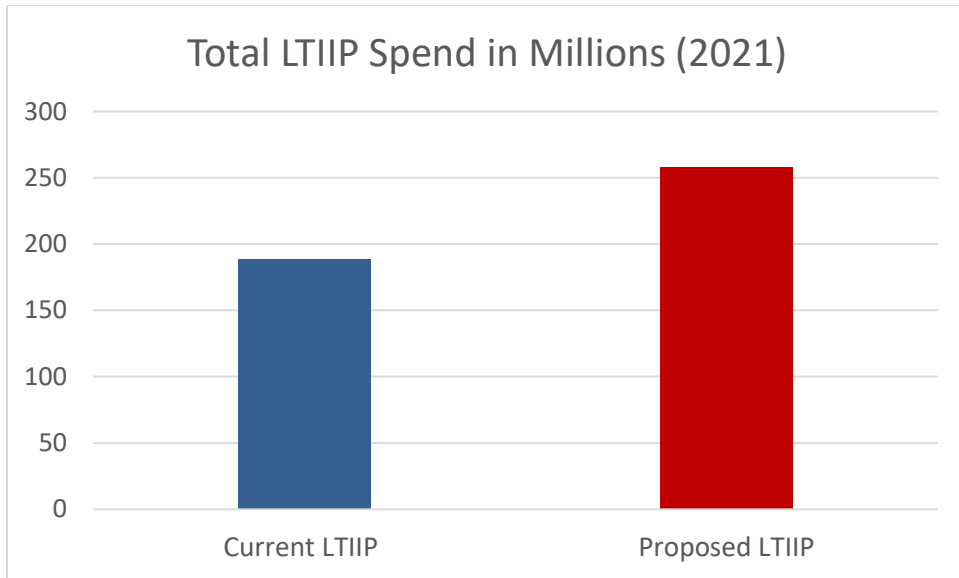
to replace all 'at-risk' customer owned service lines within the scope of its LTIP projects. The projected amount of customer-owned service line replacements has increased over the 2021 – 2025 LTIP period commensurate with the increased replacement of distribution pipe. This combined Distribution LTIP also reflects an increased emphasis on reducing the remaining bare steel DOT transmission lines. The special meter technology/ERT implementation program that began in 2016 for Peoples Natural (former Peoples Division) and Peoples Gas is nearing completion. Peoples Natural is now focusing on the replacement of first generation ERTs at Peoples Natural (former Equitable Division) and projects to complete this in 2020. The Peoples Companies will accelerate the replacement and investment in measuring and regulating (“M&R”) infrastructure to further enhance service reliability. The Companies also are proposing a new program to enhance overall gas safety and reliability by installing additional facilities related to Over Pressure Protection and have included infrastructure acquired in the acquisition of Mountain Energy LTD (“Mountain Energy”) as DSIC-eligible property to be replaced in the future. Each of these areas is detailed in the sections below.

PIPELINE REPLACEMENT STRATEGY

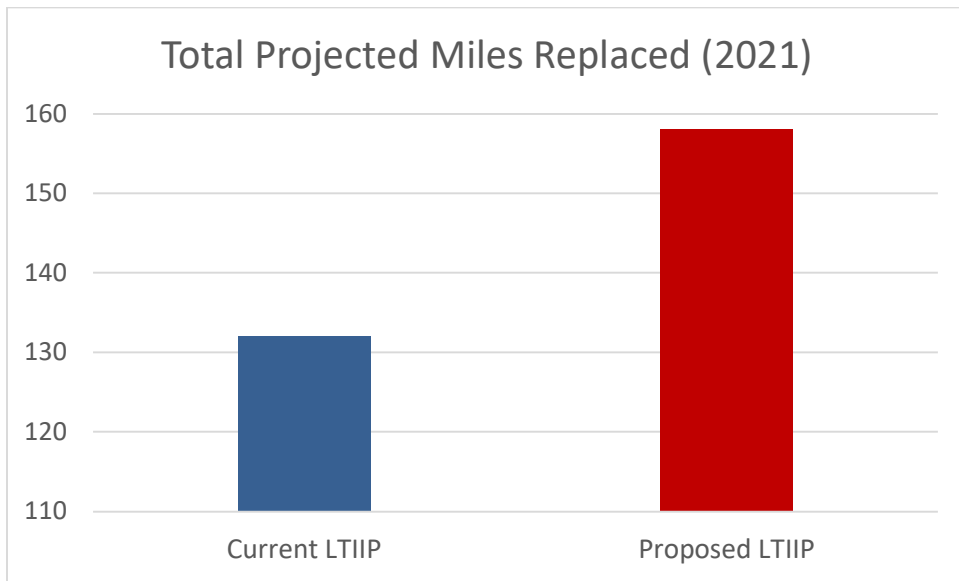
The Peoples Companies will increase main and services line investment over the current LTIP spending plans commencing in 2021 and replace all current at-risk distribution pipeline (approximately 2,740 miles) by 2034. For the five-year period covered in this Combined Distribution LTIP, the Peoples Companies will replace ~~over~~ 870 miles of at-risk pipe, over 42,800 company owned services and 27,400 customer owned services. The Companies will target the highest risk segments and develop projects around these segments.

The Companies' Distribution LTIPs include both distribution and transmission pipe. The Peoples Companies operate approximately 163 miles of DOT transmission pipelines, of which approximately 26 miles or 16% are bare steel. Three critical pipelines comprise the majority of these 26 miles. (One pipeline, TP7220/7300, contains 23 miles of bare steel.) Due to their operating characteristics, these three transmission pipelines are considered higher risk. They operate at higher pressure, are more prone to rupture than leaking, and are key supply pipelines serving tens of thousands of customers. For these reasons, this Combined Distribution LTIP has a focus on replacing large portions of the remaining bare steel in these three DOT transmission pipelines. During the period covered by this LTIP the Peoples Companies plan to replace approximately 17 of the remaining 26 miles or over 65%. At the end of the period covered by this LTIP only one transmission pipeline, TP7220/7300 will contain bare steel sections. (the Peoples Companies anticipate the remaining 9 miles will be replaced by the end 2029.) These transmission pipeline replacements are more expensive than distribution pipelines – often costing 3 to 7 times more.

The Peoples Companies' projected expenditures and pipeline replacement amounts for 2021 comply with the aforementioned settlement commitment of an increase of \$30 million in spend per year and, as discussed above, will average 25 miles of additional annual pipeline replacement beginning in 2021. The Companies projected LTIP spend for 2021 is increasing from \$189.1 million as contained in the current LTIP, to ~~\$256.2~~258.1 million, an increase of ~~\$67.1~~69 million (~~35~~36%).



Also, the Companies' projected replacement amount for 2021 is increasing from 132 miles as filed in the current LTIP to 158 miles, an increase of 26 miles (20%).



This LTIP increases the five-year capital investment for Mains and Services from \$822.5 million over the 2017-2021 period to \$1.47467 billion over the 2021-2025 period, an increase of \$646644.1 million (+78%) above the current LTIP plan. In addition, Peoples Companies projected mileage

replacement increases from the 2017-2021 projection of 610 miles to 870 miles over the 2021-2025 time period, an increase of (43%) or 52 miles per year above the current plan. This projected mileage replacement reflects an average increase of slightly more than 28 miles per year above previous planned mileage replacements for the years 2021-2025. Overall, the total LTIP spending will increase from \$919 million to \$1.546556 billion, an increase of \$627636.7 million (6869%). The increased investments may accelerate the completion of the replacement of at-risk pipe by one year from 2034 to 2033.

The exact number of miles replaced per year can be very challenging to target given the mix of projects, specific township requirements, availability of construction crews and a myriad of logistical challenges. The Peoples Companies plan includes the ability to adjust the total miles replaced year to year based on the logistical items outlined above. For instance, if in 2021 Peoples Companies replace 165 miles in 2021 and exceeds the 160 miles proposed then the additional miles would be reduced over the remaining 5 years of the LTIP and vice versa. Overall, Peoples Companies propose to replace 870 miles over the 2021-2025 time period given that over the 5 year period the risk reduction will still occur as outlined in this document.

STAFFING PLAN

The Peoples Companies have developed construction forecasting software that is used to build models based on the mileage of mainline pipe to be replaced to begin the planning process for each year. The model is used by construction management to establish a model of mainline pipe to be replaced, as well as, new construction pipeline. The model is driven by multiple parameters that factor in the number of miles to be replaced, the annual budget, the number of internal and external crews

planned, the productivity by region, the capacity of each region, the capacity of contractors by region, the number of vehicles per crew, based on type of work, the risk of pipe, the costs by region, the cost of construction support personnel, the capacity of the designers to work on LTIIP projects, the cost and capacity of restoration crews, the capacity to complete work by time of year, and the constraints of management and supervisors. This tool builds a forecast of the crews and resources needed to complete the mileage replacement per month, and shows variances by the multiple areas described above, in terms of the current metrics, and what is needed by the model. Multiple scenarios are then created to balance the model to meet the constraints, or to establish the need to add more crews or vehicles to a region, and/or hire more resources, either internal or external.

The aforementioned model was used as a planning tool for this Combined Distribution LTIIP and the results are summarized on the attached Appendix 1. This model was used to determine the staffing levels required to execute the accelerated plan. Additional staffing will be added in the latter half of 2020. This ramp up in 2020 will allow the staffing to be on boarded, trained, and qualified such that they can begin work in early 2021.

The Peoples Companies are positioned well in the local labor market with regard to wages, benefits and reputation. In addition, the Companies have a very low turnover rate that averages less than 2% and, therefore, do not need to expend substantial effort backfilling vacancies. Recruitment of applicants to fulfill staffing requirements in both field and support positions have been easily met through passive recruitment of applicants. In the second quarter of 2020, the Peoples Companies began recruiting candidates to fill current vacancies and build a pool of vetted candidates in anticipation of the LTIIP ramp up. The most recent job posting resulted in approximately 200 applicants. Due to the Companies' labor market position, and its effective use of screening questions

during the application process, the Peoples Companies find that about 55% to 65% of applicants present as well qualified and move on to the interview phase. This also results in a high success rate for candidates that are interviewed. Likewise, recent recruitment of support staff shows that candidate pools are strong and the Companies do not anticipate a shortage of successful candidates for these positions.

The Peoples Companies will take a two-phased approach to adding contractor crews. The first approach will be to contact the Companies' current contractors to add additional crews. The Peoples Companies currently have eight pipeline contractors who have identified that they have capacity and are willing to add additional crews as the Peoples Companies need them. The second approach will be to add new pipeline contractors to support the ramp up in construction. The Peoples Companies have five new pipeline contractors that have been identified to provide potential future additional construction crews. Initial conversations have been completed with these contractors and the Peoples Companies have informed them that they will be contacted to complete the on-boarding process as soon as the Companies have sufficient additional work to support them.

AUTOMATED METER READING

Automated Meter Reading (AMR) is a technology which allows for consistent and accurate collection of information from a natural gas meter. The technology has been available for more than 40 years, and has continued to evolve into the reliable, multi-faceted systems that are commercially available today. Readings are captured by an AMR device, a unit mounted on the natural gas meter by a trained installer. The AMR device has the ability to constantly monitor and register a customer's natural gas usage. Data is collected and transferred to a centralized database for billing purposes

and/or usage analysis. This information is then used to calculate a monthly bill for the customer. AMR eliminates the need for manual meter readings and more importantly eliminates the need for an “every other month” estimated bill. Actual readings will increase customer satisfaction by improving the accuracy of customer usage data for billing and other data collection purposes and minimize intrusion upon a customer's home or business. Over the years, as AMR technology has been refined, more natural gas distribution companies throughout the country have converted to AMR use. The majority of Natural Gas Distribution Companies in Pennsylvania are using AMR and, due to Act 129, all Electric Distribution Companies are required to implement Smart Meters.

As of August 27, 2020 Encoder Receiver Transmitters (“ERTs”) have been placed on 99.1% of Peoples Natural Gas’ meters and 98.1% of Peoples Gas’ meters. The Peoples Companies will continue to work towards installing ERTs on the remaining meters in 2020.

Peoples Natural has begun replacing the first generation ERTs (aka 40g) on the legacy Equitable Gas meters and the goal is to have all of the meters upgraded by end of 2020.

The Peoples Companies do not propose any changes to the AMR program in this Combined Distribution LTIP. While the Peoples Companies already have Commission approval to include AMR technology as an LTIP category, they received Commission approval to withdraw the proposal to recover AMR-related costs through the DSIC mechanism and reserved the right to present a future claim to recover AMR technology costs through the DSIC mechanism at such time when the Companies actually install AMR support technology. The Companies recognize that such a claim would need to be made through a separate petition that requests modification of their existing DSIC recovery mechanisms. The Companies are not submitting such a petition at this time but reserve the right to do so in the future.

M&R STATIONS

Metering and Regulating ("M&R") stations are critical points where gas pressure and delivery volumes are regulated to ensure that gas delivered into or out of a pipeline system is maintained within a specified and safe operating pressure range. M&R stations are located at points where gas is delivered between higher- and lower-pressure pipelines. An M&R station regulates or adjusts pressure and volumes from a higher-pressure transmission or distribution pipeline for delivery into a lower-pressure distribution pipeline.

Peoples Natural has 2,038 M&R stations and Peoples Gas has 714 M&R stations strategically located on the respective systems.

In its currently approved Combined Distribution LTIP, the Peoples Companies have approval for a five-year term from 2017-2021 for planning upgrades and improvements to approximately 51 M&R stations per year or 255 M&R stations in total. During the five-year term, the Peoples Companies planned to spend \$14.0 million (or \$2.8 million/year) for M&R station upgrades/improvements.

The Peoples Companies do not propose any significant changes to the pace of M&R upgrades and improvements in this Combined Distribution LTIP. The Peoples Companies project to replace 51 M&R stations per year for the duration of this LTIP and spend a total of \$15.15 million, \$3.1 million per year. The planned improvements to these existing M&R stations are necessary in order to maintain safe, adequate, reliable and low cost service for the Peoples Companies' customers. The Companies recognize that in order to recover the costs for this new category through the DSIC mechanism, a separate petition is required. The Companies are not submitting such a petition at this time but reserve the right to do so in the future.

It should be noted that the abovementioned M&R Station Upgrades/Improvements category is separate from the proposed Over Pressure Capital Improvement Program for regulating stations that is explained on page 8, which is focused on mitigating the risk of an incident similar to that which occurred in Merrimack, MA (September 2018) discussed below.

OVER-PRESSURE PROTECTION

The Merrimack, MA Incident in September 2018 and the subsequent findings/recommendations of various regulators, industry groups, and United States Senators, resulted in Operators reviewing their regulated systems and focusing on prevention of a similar incident. The Merrimack Incident involved the over pressurization of a low-pressure distribution system. The Peoples Companies operate over 640 such systems, comprised of over 4,500 miles of low-pressure pipe and over 1,800 regulator stations. The Companies' low-pressure systems serve natural gas to over 450,000 customers.

In an effort to reduce the likelihood of a similar event, the Peoples Companies propose as part of this Combined Distribution LTIIP filing to implement an Over Pressure Capital Improvement Program for regulator stations. The 8-year, \$40 million program, which begins in 2020, consists of three project types intended to mitigate over-pressurization risk: (i) adding remote pressure detection equipment, (ii) adding another form of over pressure protection such as adding relief valves or making station piping modifications depending upon what is best suited for the individual regulator station, and (iii) relocating underground control lines² (which were involved in the Merrimack Incident) to above

² Control lines are small diameter lines that connect the regulator with the downstream system to provide pressure feedback to the regulator. In general, underground control lines can extend a few feet to 30 feet or more downstream of the regulator.

ground locations whenever possible and feasible. The estimated plant additions and costs for the complete program are as follows:

Program Area	Estimated Count	Unit Cost	Ext Cost
Remote detection	960	\$10,000	\$9,600,000
Additional OPP	1145	\$22,000	\$25,190,000
Move sensor lines	500	\$12,000	\$6,000,000
Total			\$40,790,000

For the five year period covered by this LTIP, (a portion of the eight year OPP program), an estimated \$28.6M is included. Projected spending for the term of the Revised Distribution LTIP are presented in Appendices 4 and 5.

MOUNTAIN ENERGY AND OTHER PLASTIC PIPE

On May 13, 2019 Peoples Natural finalized a transaction whereby Peoples Natural became the owner and operator of the System known as Mountain Energy in Greene County. Mountain Energy originally sought to abandon service to its 86 customers. During the pendency of the abandonment proceedings, Mountain Energy was unable to maintain service to its customers, and the Commission issued an emergency order directing Peoples Natural to maintain service. Ultimately, Peoples Natural agreed to acquire the vast majority of Mountain Energy’s facilities and customers. This system is comprised of approximately 20 miles of pipe, 73 customers, and was operated by a third party. The Commission approved the transaction on July 21, 2016 and a condition of that Agreement was that the infrastructure would be integrated into Peoples Natural’s distribution system, and therefore be eligible for the Peoples Companies’ LTIP. Peoples Natural has determined, since it became the Operator, that all 20 miles of the pipe are in poor condition, including the portions believed to be plastic. Much of the

plastic pipe installed in this system by the prior operator was found to be installed above ground. Although the records of this system are very poor, they do show 4 miles of plastic pipe in the 20-mile system. Due to the overall poor condition of both the bare steel and plastic pipe installed in the Mountain Energy System, the Peoples Companies propose that all 20 miles be considered LTIP eligible property and that this pipeline be replaced in accordance with the Peoples Companies' standard risk ranking process and operational conditions.

Although very much the exception, occasionally, the Peoples Companies determine, through operating experience, that some existing in service plastic pipe is at higher risk. Typically this plastic pipe is older, circa 1970s vintage, which may develop cracks over time. When the Peoples Companies identify such higher risk plastic pipe, and it is replaced, the Peoples Companies propose to count this pipe as eligible LTIP infrastructure replacement in terms of miles and dollars.

COMPONENTS OF THE COMBINED DISTRIBUTION LONG-TERM INFRASTRUCTURE IMPROVEMENT PLAN

Act 11 prescribed certain informational components for inclusion in the LTIP, and the Commission's regulations at 52 Pa. Code § 121.3(a) specify eight specific components. For purposes of this Combined Distribution LTIP, the impact upon these eight LTIP components, as a result of the changes described previously herein, are set forth and described below, in comparison to the currently approved LTIPs for the Peoples Companies.

- 1. Identification of types and age of eligible property for which the Peoples Companies will seek DSIC recovery.**

Combined Distribution Appendix 2 details the types and age of all eligible pipeline property for which the Peoples Companies will seek DSIC recovery. With regard to pipeline replacement, the Peoples Companies are not changing the plan to replace all Distribution target pipe, predominantly unprotected bare steel and cast iron pipelines, over an approximate twenty year period. As explained above, the further acceleration of mains replacement may reduce the planned replacement period by one year.

Regarding meter replacements, the Peoples Companies are not proposing to change the rate of annual meter replacements that is set forth in the currently effective LTIP. The Companies determine their annual meter replacements based on meter test results. The meter test program that the Companies follow for diaphragm meters is the statistical sampling method set forth in 52 Pa. Code § 59.21(d). A utility that elects the statistical sampling program shall remain on that program for at least four years. For rotary meters, the Companies perform an audio and visual inspection every two years pre-1990 installation and every five years post-1990 installation and a differential test every ten years in accordance with manufacturer recommendations. The replacement of such meters occurs as a result of issues discovered as a result of this inspection process. In addition, a spin test is performed for all turbine meters once every two years and meters are replaced accordingly.

Under the statistical sampling program, the Peoples Companies divide meters into groups and then test samples from each group annually. For a group to remain in service, at least 80% of the meters in the sample test must meet Commission-required accuracy limits. If a group does not meet those limits, corrective action must be taken, which may consist of removing the entire group from service within four years. The level of meter replacement for

this LTIP was developed using the statistical sampling program. Should a meter family currently in use be condemned during the term of this LTIP, meter replacements will increase beyond projected levels in order to remove those meters from service within a four year period.

Spend on meter replacement/inside meters is \$45 million for the five-year period covered by this LTIP.

2. Schedule for planned repair and replacement of eligible property.

Combined Distribution Appendix 3 contains a schedule showing the strategies employed for the planned repair and replacement of DSIC-eligible plant during the five-year period covered by this LTIP. **Combined Distribution Appendix 3** is based on an analysis of equipment failures, their nature, causes, locations, analysis of reliability performance indicators, and forecasts of future reliability concerns.

3. Location of eligible property.

The table below depicts miles of pipeline in each of the five operating areas that encompass the overlapping service territory.

Location of Eligible Property	PNG	PG	Grand Total
Central	698	0	698
East	337	1	338
North	335	308	643
South	438	14	452
West	470	139 138	609
Grand Total	2,278	461	2,739

4. Estimate of quantity of eligible property to be improved.

Combined Distribution Appendix 4 shows the estimated quantity of property to be improved during each of the five years covered by this LTIP. The Peoples' Companies propose to continue the rate of annual meter replacement as set forth in the currently effective LTIP.

5. Projected annual expenditures to implement the LTIP and measures to ensure its cost effectiveness.

The Peoples Companies' projected annual expenditures during the term of this LTIP for DSIC eligible replacements are shown in the table contained in **Combined Distribution Appendix 5**.

6. Manner in which replacement of aging infrastructure will be accelerated and how repair, improvement or replacement will maintain adequate, efficient, safe, reliable and reasonable service.

The Peoples Companies accelerated infrastructure replacement programs began in mid-2011 for Peoples Natural with the accelerated replacement of all cast iron pipelines and in 2012 for Peoples Gas with the accelerated removal and replacement of all unprotected bare steel pipeline and associated services, and some catholically protected bare steel and the services associated with these types of pipe. These programs continue today under the currently approved Combined Distribution LTIP. The Peoples Companies' continued commitment to remove aging infrastructure and making improvements to maintain adequate, efficient, safe, reliable and reasonable service is set forth throughout this LTIP.

The repair, improvement or replacement of facilities identified in this LTIP will maintain adequate, efficient, safe, reliable and reasonable service across all companies and divisions.

Historically, pipeline replacement was driven by short term operational and/or economic factors. The Peoples Companies are pursuing a long term strategy for pipeline replacements that is based on increasing the safety and reliability of the system, refocusing on the highest risk segments, while also pursuing projects that have long term benefits to system operations and reduce maintenance costs such as leak survey costs. If the Companies encounter other high risk pipe during one of their planned replacement projects, they typically replace this pipe in order to gain efficiency and further increase the safety of the system.

7. A workforce management and training program designed to ensure that the utility will have access to a qualified workforce to perform work in a cost-effective, safe and reliable manner.

Workforce planning and training is an ongoing process for the Peoples Companies, focused on a “best practices” approach to identifying current and projected staffing needs and required skill sets for the workforce. The following items have been put into place to address workforce needs:

Supervisor Assessment and Development Program –

The Peoples Companies require that all supervisor candidates participate in an assessment program that compares their abilities and behavior competencies to nationwide supervisory norms. Both internal and external hires participate in a comprehensive supervisor orientation and development program that introduces them to the Peoples Companies’ procedures and programs, as well as providing operator qualification (“OQ”) training regarding pipeline compliance, installation, and maintenance programs.

Training

The Peoples Companies provide technical skills training and OQ training at operating locations and a training center for field workers, and works to ensure that the qualifications and work quality meet regulatory and Company expectations. The Peoples Companies believes that this helps the Companies protect system integrity and reliability as well as public safety.

New employees receive seven weeks of training. Typically, the first week of training is their Safety Orientation followed by three weeks of training consisting of construction and maintenance fundamentals training. This includes OSHA compliance and accident prevention training as well as field construction techniques, tool and equipment operation, and other natural gas distribution field work exposure. The construction and maintenance training is complemented by three weeks of on the job training.

When these employees advance to Field Customer Service positions, a similar three-week course is provided that includes safe appliance inspection and maintenance procedures, Natural Fuel Gas Code compliance, and leak and odor investigation. The training department also conducts courses on specific equipment used in the gas distribution industry, including training from manufacturer staff experts.

Operator Qualification Training

In order to ensure that workers involved in DSIC-eligible work are qualified, the Peoples Companies have an extensive Operator Qualification (OQ) Program. The Safety and Training Department is responsible for re-qualifying one-third of the Operations' workforce each year (includes acquiring, developing, and/or providing the training that supports OQ training, maintaining qualification records, and maintaining a database of qualified individuals);

tracking Role assignments and scheduling training sessions; publishing a monthly Role status report; coordinating the development and maintenance of the written Operator Qualification Program, the identification of covered tasks and abnormal operating conditions, the development of evaluation instruments, and the qualification of employees and evaluation of qualified individuals; and verifying contractor compliance.

Company hired Contractors that solely do work for the Peoples Companies are also required to adhere to federal Department of Transportation's Pipeline Safety regulations pertaining to Operator Qualification, Drug and Alcohol Testing and Program Administration, and other requirements designed to assure safe and accurate installation and operation of pipeline components.

The Peoples Companies will verify that all individuals performing covered tasks, including contractor or subcontractor employees, are qualified according to the provision of the Operator Qualification Rule. For the purposes of OQ, the term contractor includes individuals who are not Peoples Companies employees and who perform covered tasks on the Peoples Companies' facilities. Contractors recognized as "Service Line Installers" by the Peoples Companies are exempt from the requirements of this section.

Contractors shall demonstrate compliance to the Peoples Companies' safety requirements by attaining qualification through the Peoples Companies' programs held at the Companies' training facility. Evidence of compliance may include, but is not limited to:

1. Identification of qualified individuals.
2. Date current qualification was completed.

3. Additional information requested by the Peoples Companies pertaining to the qualification of individuals.

All applicable contracts will include provisions specifying contractor Operator Qualification requirements. Inspection of contractor qualification will occur at job sites or at contractor's facilities at the discretion of the Peoples Companies.

Contractors utilizing any non-English speaking employees must make provisions or provide for adequate translation capabilities prior to, and during, training and the performance of work.

8. A description of a utility's outreach and coordination activities with other utilities, Department of Transportation and local governments regarding the planned maintenance/construction projects and roadways that may be impacted by the LTIP.

The Peoples Companies participate in the following utility coordination and outreach activities with municipalities and other utility companies in this area:

- PA-DOT Utility – Highway Liaison Committee (UHLC);
- PA-DOT Annual planning and LET schedule meetings for coordination of projects;
- PA-DOT Individual Project Design/Utility Coordination site visits and meetings;
- PA One Call – Coordinate PA, Complex Tickets;
- PUC Public Crossings Project;
- CONNECT- "Congress of Neighboring Communities"- representatives from CONNECT member municipalities and the utilities meet for planning, networking, and coordination efforts;
- Indiana Public Service Coordinating Committee;
- Johnstown Public Service Coordinating Committee;
- Altoona Public Service Coordinating Committee;
- City of Pittsburgh Department of Mobility and Infrastructure - monthly utility co-ordination meetings;

- Annual- Individual City of Pittsburgh Council meetings on projects per ward;
- Pittsburgh Water & Sewer Authority (PWSA) - Water/Gas co-op renewal projects;
- Project Communications in local papers {i.e. print - Pittsburgh East End Newspaper};
- Allegheny County Department of Public Works- Coordination meetings for upcoming work, pending work, and active work;
- Ad hoc coordination meetings with local governments;
- The Peoples Companies' website, <https://www.peoples-gas.com/street-work/future-work.php>, is updated to reflect Interactive Mapping under the "Future Work" link which can display projects that are coming up in the next two weeks and where customers can check the status of ongoing construction;
- The Peoples Companies send letters requesting local governments to share upcoming paving plans. Responses received are integrated into the Peoples Companies' overall project planning;
- Individual Communications - Project mailings (construction letters and door hangers);
- Individual Communications - Calls are sent to Peoples Companies' customers that are involved within the project scope. These are completed as a reminder that the Companies are coming prior to construction work starting; and
- Individual door to door communications

Distribution Miles	2" Or Less	Over 2" thru 4"	Over 4" thru 8"	Over 8" thru 12"	Over 12"	Grand Total
Bare Steel	219	909	738	201	99	2,166
Cast Iron	-	-	-	-	28	28
Coated Steel	357	1,296 1,297	950	345	183	3,131
Copper	2	-	-	-	-	2
Plastic	1,328	2,555	1,050, 1,051	63	-	4,996, 4,998
Wrought Iron	3	26	22	2	1	54
Fiberglass	1	3	1	-	-	5
Unknown	3	-	-	-	2	5
Grand Total	1,913 1,911	4,789 4,790	2,761, 2,763	611, 610	313	10,387

Transmission Miles	2" Or Less	Over 2" thru 4"	Over 4" thru 8"	Over 8" thru 12"	Over 12"	Grand Total
Bare Steel	-	-	-	4	22	26, 27
Coated Steel	-	2	6	92	27	127
Grand Total	-	2	6, 7	96	49	153

Miles by Vintage	Distribution	Storage	Transmission	Grand Total
1940-1949	374	-	1	375
1950-1959	1,038	-	57	1,095
1960-1969	1,609	1	22	1,632
1970-1979	1,306	-	19	1,325
1980-1989	1,155	-	11	1,166
1990-1999	1,385, 1,384	-	13	1,398 1,396
2000-2009	1,320	1	22	1,343
2010-2019	879	-	8	887
Pre 1940	499	-	-	499
Unknown	823	-	-	823
Grand Total	10,388	2	151	10,541

Services

Material	Unknown	1" OR LESS	Over 1" TO 2"	Over 2" TO 4"	Over 4" TO 8"	Over 8"	Grand Total
Steel	2,257	25,193	138,873	839	164	-	167,326
Copper	18	6,456	823	3			7,300
Plastic PE	4,724	291,281	108,020	1,257	180	12	405,474
Other	32,329	1,750	7,355	56	25	1	41,516
Grand Total	39,328	324,680	255,071	2,155	369	13	621,616

Services by Decade	
Unknown	69
Pre-1940	59,351
1940-1949	7,810
1950-1959	32,743
1960-1969	62,563
1970-1979	99,126
1980-1989	90,559
1990-1999	105,662
2000-2009	91,594
2010-2019	72,139
Grand Total	621,616

Distribution Miles	2" Or Less	Over 2" thru 4"	Over 4" thru 8"	Over 8" thru 12"	Over 12"	Grand Total
Bare Steel	80	128	134	91	2	435
Coated Steel	76	251	251	168	21	767
Plastic	298, 299	468, 469	169	1	0	936
Unknown	7	9	11	0	0	27
Grand Total	461	856	565	260	23, 24	2,165

Transmission Miles	6" or Less
Coated Steel	10

Miles by Vintage	Distribution	Storage	Grand Total
1940-1949	28	-	28
1950-1959	96	-	96
1960-1969	407	-	407
1970-1979	312	2	314
1980-1989	277	2	279
1990-1999	314	-	314
2000-2009	292	6	298
2010-2019	237	0	237
Pre 1940	203	-	203
Unknown	1	-	1
Grand Total	2,165	10	2,175

Services							
Material	Unknown	1" OR LESS	Over 1" TO 2"	Over 2" TO 4"	Over 4" TO 8"	Over 8"	Grand Total
Steel	-	-	13,555	34	2	-	13,591
Plastic PE	-	-	47,871	111	2	-	47,984
Grand Total	-	-	61,426	145	4	-	61,575

Services by Decade

Unknown	-
Pre-1940	1,200
1940-1950	2,401
1950-1959	3,349
1960-1969	1,095
1970-1979	12,878
1980-1989	12,850
1990-1999	13,200
2000-2009	7,800
2010-2019	6,802
Grand Total	61,575

	Peoples Natural Gas			Peoples Gas		
	Inside	Outside	No Indicator	Inside	Outside	No Indicator
TC Diaphragm Meters	41,336	272,640	197	1,251	55,422	20
Non TC Diaphragm Meters	39,558	295,785	12	129	7,063	14
Rotary TC	509	2,254	10	2	39	
Turbine	41	129	41	0	27	10
Rotary Non TC *	480	3,961	84	17	464	51
Grand Total	81,924	574,769	344	1,399	63,015	95

*Some Non TC Rotary Meters may have been retrofitted with TC or have correctors installed compensating for temperature but no way to track.

	PNG Totals	PG Totals
Vintage Year		
Unknown		
Pre-1940	1	28
1940-1949	3	0
1950-1959	3,085	1
1960-1969	23,019	2
1970-1979	40,728	22
1980-1989	144,683	77
1990-1999	142,541	25,639
2000-2009	179,225	23,011
2010-2019	123,752	15,729
Grand Total	657,037	64,509

Peoples Distribution
Long-Term Infrastructure Improvement Plan
 January 1, 2021 through December 31, 2025

Projected Quantity of Property Improved

Peoples Natural Gas

Category	2021				
Distribution Lines - Miles	141, 142				
Company Owned Services - Count	7,000				
Transmission/Storage Lines - Miles	7				
Meter Replacement/Inside Meters	12,000, 6,000				
Customer Owned Services - Count	4,500				
Special Meter Technology	0				
M&R Station Upgrades/Improvements/OPP	40				
Category	2022	2023	2024	2025	5 Year Total
M&R Station Upgrades/Improvements/OPP	148	169	174	174	813
Company Owned Services - Count	8,050	8,050	9,050	9,100	41,250
Customer Owned Services - Count	5,200	5,200	5,825	5,850	26,575
Meter Replacement/Inside Meters	12,000, 6,000	12,000, 6,000	12,000, 6,000	12,000, 6,000	60,000, 36,000
Special Meter Technology	0	0	0	0	0
M&R Station Upgrades/Improvements/OPP	40	40	40	40	200

Peoples Distribution
Long-Term Infrastructure Improvement Plan
 January 1, 2021 through December 31, 2025

Projected Quantity of Property Improved

Peoples Gas

Category	2021				
Distribution Lines - Miles	10				
Company Owned Services - Count	150				
Transmission/Storage Lines - Miles	0				
Meter Replacement/Inside Meters	830				
Customer Owned Services - Count	85				
Special Meter Technology	0				
M&R Station Upgrades/Improvements/OPP	11				
Category	2022	2023	2024	2025	5 Year Total
M&R Station Upgrades/Improvements/OPP	11	12	12	12	57
Company Owned Services	320	350	375	425	1,620
Customer Owned Services - Count	180	200	215	240	920
Meter Replacement/Inside Meters	830	830	830	830	4,150
Special Meter Technology	0	0	0	0	0
M&R Station Upgrades/Improvements/OPP	11	11	11	11	55

Peoples Distribution
Long-Term Infrastructure Improvement Plan
January 1, 2021 through December 31, 2025

Combined Distribution Appendix 5
Page 1 of 2

Projected Annual LTIIP Expenditures

Peoples Natural Gas

Type (in millions \$)	2021	Applicable FERC Account No.				
Distribution Lines	\$121.1	376				
Company Owned Services	\$38.0	380				
Customer Owned Services	\$19.4					
Transmission Lines	\$41.1	367				
Government Relocations	\$10.2	Included in functional pipeline account				
Meter Replacement/Inside Meters	\$7.7 \$6.0	381 & 382				
Other Related Capitalized Costs						
Special Meter Technology	\$0.0					
Fleet	\$0.0					
M&R Station Upgrades/Improvements/OPP	\$4.9					
Grand Total	\$242.4, 240.7					
Type (in millions \$)	2022	2023	2024	2025	5 Year Total	5 year Avg.
Pipeline Replacement	\$156.2	\$228.3, 228.4	\$220.5	\$220.5	\$987.7	\$197.5, 197.6
Company Owned Services	\$39.5	\$50.7	\$56.0	\$56.0	\$240.2	\$48.0
Customer Owned Services	\$20.2	\$25.9	\$28.5, 28.6	\$28.5, 28.6	\$122.5	\$24.5
Government Relocations	\$10.1, 10.2	\$10.1	\$10.1	\$10.1	\$50.6	\$10.1, 10.2
Meter Replacement/Inside Meters	\$7.7, 6.0	\$7.7, 6.0	\$7.7, 6.0	\$7.7, 6.0	\$38.5, 35.0	\$7.7, 6.0
Total	\$233.7, 232.0	\$322.7, 321.0	\$322.8, 322.1	\$322.8, 322.1	\$1439.5	\$287.9, 286.2
Other Related Capitalized Costs						
Tools	0.0	0.0	0.0	0.0	0.0	0.0
Fleet	0.0	0.0	0.0	0.0	0.0	0.0
M&R Station Upgrades/Improvements/OPP	6.2	6.8	6.8	6.8	31.5	6.3
Grand Total	\$239.9, 238.2	\$329.5, 327.8	\$329.6, 327.9	\$329.6, 327.9	\$1471.0	\$294.2, 292.5

Peoples Distribution
Long-Term Infrastructure Improvement Plan
 January 1, 2021 through December 31, 2025

Projected Annual LTIP Expenditures

Peoples Gas

Type (in millions \$)	2021	Applicable FERC Account No.				
Distribution Lines	\$7.6	376				
Company Owned Services	\$1.4	380				
Customer Owned Services	\$1.0					
Transmission Lines	\$2.3	367				
Government Relocations	\$0.3	Included in functional pipeline account				
Meter Replacement/Inside Meters	\$1.3, 1.1	381 & 382				
Other Related Capitalized Costs						
Fleet	\$0.0					
M&R Station Upgrades/Improvements/OPP	\$1.8					
Grand Total	\$15.7, 15.5					
Type (in millions \$)	2022	2023	2024	2025	5 Year Total	5 year Avg.
Pipeline Replacement	\$9.9	\$9.9	\$10.4	\$10.5	\$50.6	\$10.1
Company Owned Services	\$1.4	\$1.6 1.7	\$1.7	\$1.8	\$7.9	\$1.6
Customer Owned Services	\$1.0	\$1.2	\$1.2	\$1.2	\$5.6	\$1.1
Government Relocations	\$0.3	\$0.3	\$0.3	\$0.3	\$1.5	\$0.3
Meter Replacement/Inside Meters	\$1.3, 1.1	\$1.3, 1.1	\$1.3 1.1	\$1.3 1.1	\$6.5 6.0	\$1.3 1.1
Total	\$13.9 13.7	\$14.3 14.1	\$14.9 14.7	\$15.1 14.9	\$72.1	\$14.4 14.2
Other Related Capitalized Costs						
Tools	0.0	0.0	0.0	0.0	0.0	0.0
Fleet	0.0	0.0	0.0	0.0	0.0	0.0
M&R Station Upgrades/Improvements/OPP	2.4	2.8	2.8	2.8	12.6	2.5
Grand Total	\$16.3 16.1	\$17.1 16.9	\$17.7 17.5	\$17.9 17.7	\$84.7	\$16.9 16.7