

**I&E Statement No. 6  
Witness: Matthew Matse**

**PA PUBLIC UTILITY COMMISSION**

**v.**

**PEOPLES NATURAL GAS COMPANY LLC**

**DOCKET NO. R-2018-3006818**

**Direct Testimony**

**of**

**Matthew Matse**

**Bureau of Investigation & Enforcement**

**Concerning:**

**DISTRIBUTION INTEGRITY MANAGEMENT PROGRAM LONG TERM  
INFRASTRUCTURE IMPROVEMENT PLAN  
GO WITH GAS  
DAMAGE PREVENTION**

## Table of Contents

INTRODUCTION.....	1
DISTRIBUTION INTEGRITY MANAGEMENT PROGRAM AND LONG TERM INFRASTRUCTURE IMPROVEMENT PLAN.....	2
DAMAGE PREVENTION.....	10

1 **INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS**

3 **ADDRESS.**

4 A. My name is Matthew Matse. I am a Fixed Utility Valuation Engineer in the Safety  
5 Division of the Pennsylvania Public Utility Commission's (PA PUC or  
6 Commission) Bureau of Investigation and Enforcement (I&E). My business  
7 address is Pennsylvania Public Utility Commission, 400 North Street, Harrisburg,  
8 PA 17120.

9  
10 **Q. WHAT IS YOUR EDUCATIONAL AND EMPLOYMENT EXPERIENCE?**

11 A. I attended the University of Pittsburgh and earned a Bachelor of Science Degree in  
12 Civil Engineering Technology in 2006. I joined the Commission's Safety Division  
13 in August of 2015. I am a certified Pipeline Hazardous Material Safety  
14 Administration (PHMSA) inspector. Prior to 2015, I worked for the Pennsylvania  
15 Department of Transportation (PennDOT) from 2006 to 2015, where I worked in  
16 Roadway Design, Environmental Permitting, and Hydraulics and Hydrology.

17  
18 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

19 A. The purpose of my direct testimony is to address Peoples Natural Gas Company's  
20 (Peoples or Company) pipeline replacement of bare steel, cast iron, wrought iron,  
21 and vintage plastic pipe also known as first generation pipe. More specifically,

1 my direct testimony will address the following issues:

2 A. Federal regulations Peoples is required to follow.

3 B. Peoples pipeline replacement program.

4 C. Pipeline Replacement Costs.

5

6 **DISTRIBUTION INTEGRITY MANAGEMENT PROGRAM AND LONG TERM**

7 **INFRASTRUCTURE IMPROVEMENT PLAN**

8 **Q. WHAT FEDERAL REGULATIONS ARE PEOPLES REQUIRED TO**  
9 **COMPLY WITH THAT AFFECT PIPELINE REPLACEMENTS?**

10 A. Peoples is mandated to adhere to the Distribution Integrity Management Program  
11 (DIMP) under Chapter 49 Part 192.1001-192.1015 of the Code of Federal  
12 Regulations.

13

14 **Q. WHAT DOES DIMP REQUIRE?**

15 A. DIMP requires a natural gas utility to perform the following risk management  
16 strategies:

- 17 1. Identify the threats to its facilities;
- 18 2. Evaluate and rank the risks of threats to the facilities;
- 19 3. Identify and implement measures to reduce risk;
- 20 4. Measure performance, monitor the results, and evaluate effectiveness;
- 21 5. Periodically evaluate and make improvements to the program;
- 22 6. Report the results.

1 DIMP regulations require Peoples to identify the risks to its pipeline facilities and  
2 to create a plan or plans to mitigate and reduce these risks. Peoples determines  
3 pipeline replacements by risk, ranking the different pipeline types and vintages,  
4 and then replacing the pipe based on the highest risk ranking.

5  
6 **Q. WHY MUST A NATURAL GAS OPERATOR COMPLY WITH DIMP?**

7 A. PHMSA created DIMP regulations to reduce the number of US Department of  
8 Transportation (US DOT) reportable incidents.<sup>1</sup> Pipeline leaks from corrosion and  
9 third-party damages<sup>2</sup> are two of the main causes of reportable incidents.

10  
11 **Q. HOW DOES PEOPLES' LONG TERM INFRASTRUCTURE**  
12 **IMPROVEMENT PLAN (LTIP) ADDRESS PIPELINE REPLACEMENT?**

13 A. Peoples' LTIP addresses pipe replacement based on risk associated with each  
14 pipe type or location. The current LTIP addresses urban pipelines as those with  
15 the highest risk and proposes replacement of these pipelines first.

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<sup>1</sup> A PHMSA reportable incident means any of the following events: (1) An event that involves a release of gas from a pipeline, or of liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility, and that results in one or more of the following consequences: (i) A death, or personal injury necessitating in-patient hospitalization; (ii) Estimated property damage of \$50,000 or more, including loss to the operator and others, or both, but excluding cost of gas lost; (iii) Unintentional estimated gas loss of three million cubic feet or more; (2) An event that results in an emergency shutdown of an LNG facility. Activation of an emergency shutdown system for reasons other than an actual emergency does not constitute an incident. (3) An event that is significant in the judgment of the operator, even though it did not meet the criteria of paragraphs (1) or (2) of this definition.

<sup>2</sup> Third Party Damages are defined as damages to natural gas facilities (or other such underground facilities) caused by someone other than the operator or the operator's contractor.

1 **Q. WHAT IS THE RELATIONSHIP BETWEEN THE DIMP AND LTIP?**

2 A. A DIMP provides the framework for a utility to prioritize investment in pipeline  
3 improvements in the utility's LTIP. A DIMP is a mechanism to analyze and rank  
4 pipeline types and replace pipelines based on the highest risk ranking.

5  
6 **Q. WHAT IS THE COMPANY'S STATED TIME FRAME IN THE LTIP FOR  
7 PIPELINE REPLACEMENT?**

8 A. Peoples' stated time frame for at risk distribution main pipeline replacement  
9 reflects completion in the year 2034 (Peoples Modified Combined LTIP at  
10 Docket No. P-2016-2563033, p. 7).

11  
12 **Q. DO YOU HAVE COMMENTS REGARDING PEOPLES' DIMP?**

13 A. Yes. I have reviewed Peoples' current DIMP as part of the I&E inspection  
14 process, and I am aware that Peoples re-established the baseline for its risk model.  
15 The DIMP baseline was re-established due to the Peoples/Equitable/TW Phillips  
16 mergers. The new baseline will require monitoring to ensure overall risk  
17 reduction to the system. If Peoples does not meet its pipeline replacement miles  
18 contained in the LTIP, the expected risk reduction will not occur.

1 **Q. WHAT IS PEOPLES PIPELINE REPLACEMENT TREND FROM THE**  
2 **PREVIOUS SIX YEARS?**

3 A. According to its response to I&E interrogatory I&E-PS-1, Peoples has overall  
4 achieved its projections and is currently eighteen miles ahead of projected  
5 replacement mileage (I&E Exhibit 6, Schedule 1). The results are summarized  
6 below. Note that Peoples' first LTIP was in 2013.

7 December 31, 2018  
8 LTIP Mileage Summary

Year	2013	2014	2015	2016	2017	2018	Total
Plan	62	47	69	61	78	126	443
Actual	59	53	60	63	88	138	461
Difference	-3	6	-9	2	10	12	18
Cumulative difference	-3	3	-6	-4	6	18	

9

10 **Q. WHAT IS THE REQUIRED PIPE REPLACEMENT PER YEAR IN THE**  
11 **APPROVED LTIP?**

12 A. The table below, which was provided on page 7 of Peoples Modified Combined

1 LTIIP at Docket No. P-2016-2563033, shows its planned replacements through  
 2 2034.

3 **Peoples 20 Year LTIP Plan Mains and Services**

Year	Annual Miles	Total Miles	% Miles	Total Customers Remaining	% Customers Remaining,	Total Investment Mains & Services	Cost/Mile
2017	95	95	3%	210,174	94%	\$ 121,000,000	\$ 1,273,321
2018	131	226	7%	191,639	86%	\$ 173,331,597	\$ 1,322,819
2019	131	357	12%	172,921	78%	\$ 172,471,863	\$ 1,317,173
2020	132	489	16%	154,084	69%	\$ 176,679,155	\$ 1,338,478
2021	132	621	20%	137,279	62%	\$ 178,873,494	\$ 1,355,102
2022	130	751	25%	120,588	54%	\$ 181,379,381	\$ 1,395,226
2023	152	903	30%	101,532	46%	\$ 186,824,823	\$ 1,229,111
2024	156	1,059	35%	84,718	38%	\$ 189,251,226	\$ 1,213,149
2025	161	1,220	40%	69,058	31%	\$ 194,049,461	\$ 1,205,276
2026	159	1,379	45%	55,745	25%	\$ 196,075,046	\$ 1,233,176
2027	182	1,561	51%	48,505	22%	\$ 203,593,684	\$ 1,118,647
2028	193	1,754	58%	41,060	18%	\$ 207,314,615	\$ 1,074,169
2029	190	1,944	64%	32,693	15%	\$ 209,715,127	\$ 1,103,764
2030	196	2,140	70%	24,961	11%	\$ 214,930,998	\$ 1,096,587
2031	196	2,336	77%	19,202	9%	\$ 217,914,940	\$ 1,111,811
2032	235	2,571	84%	10,925	5%	\$ 227,001,192	\$ 965,963
2033	249	2,820	93%	2,999	1%	\$ 229,601,022	\$ 922,092
2034	226	3,046	100%	-	0%	\$ 167,705,425	\$ 742,059

4  
 5 **Q. IN YOUR OPINION, WILL PEOPLES BE ABLE TO MEET ITS**  
 6 **REPLACEMENT GOALS?**

7 A. No. In my opinion, Peoples' proposal is not feasible. First, based upon historic  
 8 and current replacements and budgeted dollars, it is unlikely that Peoples will  
 9 meet their LTIP replacement miles. Second, I believe that this proposal is  
 10 unworkable based on current industry replacement miles. Third, I am concerned  
 11 that the Company's current gas extension program, Go With Gas, may impact its  
 12 pipeline replacement goals.



1 **Q. PLEASE DISCUSS YOUR FIRST CONCERN.**

2 A. As shown in the table above, Peoples has largely been able to meet its historic and  
3 current LTIIP goals. However, the miles replaced has been 59, 53, 60, 63, 88 and  
4 138 over the 2013 to 2018 period. Going forward, the amount of pipe projected to  
5 be replaced is significantly higher. Starting in 2023, Peoples must replace over  
6 150 miles and as much as 249 miles in a single year. The total number of  
7 proposed pipeline replacement miles from 2019 through 2034 is 2,820 miles. On  
8 a levelized basis, to complete all 2,820 miles within the stated time frame, Peoples  
9 would need to replace approximately 176 miles annually and to do that Peoples  
10 would have to increase annual budgeted pipeline replacement cost by  
11 \$59,000,000.

12  
13 **Q. PLEASE DISCUSS YOUR SECOND CONCERN.**

14 A. Peoples proposed pipeline replacement for calendar year 2019 is 131 miles and  
15 from 2023 onwards, it projects replacement of over 150 miles annually. In 2017,  
16 7 large natural gas operators in Pennsylvania, excluding Peoples, replaced a total  
17 of approximately 275 miles. For Peoples to propose pipeline replacement at 150  
18 miles to over 200 miles in future years would be greater than any current  
19 Pennsylvania operator. The reason that replacement at this level is necessary is  
20 that, while Peoples is currently 18 miles ahead of its stated replacement goals as  
21 shown in the table above, Peoples is still far behind a levelized replacement rate

1 that would allow Peoples to reasonably meet its total pipeline replacement  
2 requirements.

3 Additionally, Peoples pipeline replacement plan would require competing  
4 with other NGDCs for pipeline contractor manpower and pipeline purchases,  
5 which would make any near-term acceleration of annual replacements difficult, if  
6 not impossible.

7  
8 **Q. PLEASE ADDRESS YOUR THIRD CONCERN.**

9 A. Peoples currently has an advertised expansion program, Go With Gas, that is  
10 extending natural gas service to previously unserved areas. Although Peoples  
11 indicated in its response to I&E-PS-19 that it has not installed any new distribution  
12 systems under this program, its advertising on its website indicates a different  
13 result (I&E Exhibit No. 6, Schedule 2).<sup>3</sup> According to its website, Peoples has  
14 extended service to Colver, Derry Hillside Group, Ernest, Friedhoff Lane,  
15 Gallitzin, McCullough, Nanty Glo, and Unity Township. It is my concern that the  
16 Go With Gas program uses dollars to extend natural gas service to customers who  
17 currently do not have natural gas, who may or may not produce the revenues  
18 necessary to make these extensions economic, and by doing so, diverts funding  
19 that could be used for pipeline replacement.

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<sup>3</sup> See Peoples website: <https://www.gowithgas.com/projects/index.php>

1 Q. **WHAT IS YOUR RECOMMENDATION CONCERNING PIPELINE**  
2 **REPLACEMENT MILES?**

3 A It is my opinion that Peoples' goal should be a more levelized approach to pipeline  
4 replacement instead of the backloaded approach that is laid out in the LTIIP. This  
5 would allow Peoples to replace more pipeline miles in the short term (i.e. over the  
6 next 5 years) rather than backloading pipeline replacement miles to a level that is  
7 unrealistic. Peoples should propose an achievable rate of acceleration that would  
8 both accelerate risk reduction while moderating the impact of cost increases  
9 associated with competing with other Pennsylvania natural gas distribution  
10 companies for limited pipeline and contractor availability.

11 Further, Peoples' Go With Gas program, as an effort to expand distribution  
12 systems and add customers and revenues to Peoples' system, should be curtailed  
13 to aid it in achieving LTIIP acceleration to insure that all risky pipe is replaced in a  
14 timelier and more realistic manner. Peoples should not be directing construction  
15 and materials to add new customers and new revenue when existing customers are  
16 being served from high risk pipelines.

17 While I acknowledge that providing new natural gas service to areas that do  
18 not have natural gas service develops new revenue for the Company, unless these  
19 extensions demonstrate economic viability at inception, existing customers should  
20 not be forced to pay for these extension through rates while still receiving service  
21 from designated risky pipelines I recommend that all new Go With Gas service  
22 extensions be separately identified in the next base rate filing and Peoples provide

1 the economic viability test for each extension and include the anticipated new  
2 customer count and actual customer count for each extension.

3 Peoples currently has approximately 2,820 miles of risky pipeline to  
4 replace in 16 years or 176 miles per year on an average basis. It is apparent from  
5 the pipeline replacement that occurred over the last 5 years that Peoples has a  
6 difficult pipeline replacement goal to achieve without considering the Go With  
7 Gas program. There are only so many dollars available in the Peoples budget for  
8 construction, and I believe Peoples should prioritize reducing risk over the Go  
9 With Gas program.

10  
11 **DAMAGE PREVENTION**

12 **Q. WHAT IS THE DAMAGE RATE FOR PEOPLES NATURAL GAS?**

13 A Peoples' damage rate due to excavation has ranged from a low of 6.4 damages per  
14 1,000 tickets marked to a high of 11.58 damages per 1,000 tickets marked over the  
15 years 2009 through 2018 (I&E Exhibit 6, Schedule 3). The annual results are  
16 summarized in the table below:

Peoples Companies Excavation Damages Per 1000 Tickets Marked									
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
10.55	11.58	7.89	7.78	6.4	5.37	5.12	7.94	8.65	7.31

17

1 The source of these damages for 2014 through 2018 are summarized in the following  
 2 table as sourced from Company response to I&E PS-17 (I&E Exhibit 6, Schedule 4):

Damaging Party	2014	2015	2016	2017	2018
3rd Party Damages	497	445	516	538	608
Contractor Working for Peoples	13	5	20	48	102
Peoples Crew					1
Grand Total	510	450	536	586	711

3

4 **Q. WHAT ARE THE NATIONAL ESTIMATED DAMAGES PER 1000**  
 5 **TICKETS MARKED?**

6 **A.** The Total Estimated Damages per 1,000 Transmissions Updated Approach  
 7 (equivalent to Peoples’ 1,000 tickets marked statistic) are as follow:<sup>4</sup>

8 Table 4—Key performance indicators for total estimated damages in the U.S., over time

	2015	2016	2017
Total Estimated Damages (U.S.) Previous Approach	317,000	379,000	Not Applicable
Total Estimated Damages Updated Approach	378,000	416,000	439,000
Total Estimated Transmissions	199.9 M	221.9 M	234.9 M
Total Estimated Damages per 1,000 Transmissions Updated Approach	1.89	1.88	1.87
Damages per million dollars of construction spending	0.354	0.351	0.359

9 **Transmissions—The number of notices of intent to excavate sent by one call centers to their member**  
 10 **facility operators, including those sent directly to locating vendors on behalf of members. Each incoming**  
 11 **notice of intent to excavate generates outgoing transmissions to several members, such as electric, gas,**  
 12 **cable TV, water, sewer, telecommunications, etc.**

<sup>4</sup> Common Ground Alliance, Damage Information Reporting Tool 2017 Analysis and Recommendations Volume 14

1 As evident from the tables above, Peoples damages per 1,000 Tickets Marked has  
2 exceeded the national average in years 2015 through 2017, inclusive. Also, from  
3 2014 through 2018, inclusive, both third party damages, and damages by  
4 contractors working for Peoples have increased.

5  
6 **Q. WHY IS A DAMAGE PREVENTION PROGRAM NECESSARY FOR A**  
7 **NATURAL GAS OPERATOR?**

8 A. The Federal Code, at 49 CFR 192.614 *Damage Prevention Program*, requires  
9 operators to carry out a written Damage Prevention Program to prevent damage to  
10 underground utilities. Excavation damages are the highest risk to underground  
11 utilities both in the Commonwealth of Pennsylvania and nationally. Damage  
12 prevention reduces the risk of line hits by excavators, which could cause  
13 inadvertent ignitions, unexpected outages, and increases protection of life and  
14 property near the excavation.

15  
16 **Q. WHAT IS YOUR RECOMMENDATION REGARDING PEOPLES'**  
17 **DAMAGE PREVENTION PROGRAM?**

18 A. In my opinion, Peoples must improve its damage prevention program and  
19 prioritize its damage prevention program as a necessary program to ensure safety.  
20 Damaged facilities are one of the top three risks identified by Peoples in their  
21 DIMP and it is the top risk nationally for all natural gas operators. Peoples  
22 management needs to implement steps to improve its damage prevention program

1 and reduce line hits by use of better methods of mapping, locating, training,  
2 excavator education, and marking.

3

4 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

5 **A. Yes.**