



## Natural Gas STAR Methane Challenge Program Implementation Plan

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**Partner Name**

**Current as of (date)**

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### Partner Implementation Manager

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Telephone/Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

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# Natural Gas STAR Methane Challenge Program Implementation Plan

## Partner Methane Challenge Commitments<sup>1</sup>

### BMP Commitment Option

	Source	Start Date	Achievement Year
<b>Onshore Production</b>			
<input type="checkbox"/>	Pneumatic Controllers		
<input type="checkbox"/>	Fixed Roof, Atmospheric Pressure Hydrocarbon Liquid Storage Tanks		
<b>Gathering and Boosting</b>			
<input type="checkbox"/>	Pneumatic Controllers		
<input type="checkbox"/>	Fixed Roof, Atmospheric Pressure Hydrocarbon Liquid Storage Tanks		
<input type="checkbox"/>	Reciprocating Compressors - Rod Packing Vent		
<input type="checkbox"/>	Centrifugal Compressors - Venting		
<b>Natural Gas (NG) Processing</b>			
<input type="checkbox"/>	Reciprocating Compressors - Rod Packing Vent		
<input type="checkbox"/>	Centrifugal Compressors - Venting		
<b>NG Transmission &amp; Underground Storage</b>			
<input type="checkbox"/>	Reciprocating Compressors - Rod Packing Vent		
<input type="checkbox"/>	Centrifugal Compressors - Venting		
<input type="checkbox"/>	Transmission Pipeline Blowdowns between Compressor Stations		
<input type="checkbox"/>	Pneumatic Controllers		
<b>NG Distribution</b>			
<input type="checkbox"/>	Mains – Cast Iron and Unprotected Steel ( <i>Commitment Rate:</i> )		
<input type="checkbox"/>	Services – Cast Iron and Unprotected Steel		
<input type="checkbox"/>	Distribution Pipeline Blowdowns ( <i>Commitment Rate:</i> )		
<input type="checkbox"/>	Excavation Damages		

## Partner Methane Challenge Commitments

### ONE Future Emissions Intensity Commitment Option

Segment:		Intensity Target:		Target Year:	
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<sup>1</sup> Partners may delete unused rows within the table, and may duplicate rows and add relevant details as needed (e.g., a corporate parent partner that has different commitments for each LDC can duplicate relevant rows to list the commitments for each LDC).



## Milestones/Timeframes for Meeting Commitments:

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### Mains – Cast Iron and Unprotected Steel:

Peoples is proposing to replace Cast Iron and Unprotected Steel Mains as part of the Long Term Infrastructure Investment Plan (LTIIP). The initial commitment rate of 1.5% (calculated by linear mile of replacement) is to be achieved by 2021, and will be calculated using pipeline data reported annually to the US DOT, using the formula:

*Baseline mileage (miles of cast iron (CI) + wrought iron (WI) + unprotected steel (US) at the beginning of the calendar year) – abandoned pipe adjustment factor (miles of CI + WI + US abandoned and not replaced) – annual mitigation (miles of CI + WI + US replaced with plastic or protected steel)/Baseline mileage adjusted for abandonment.*

Peoples is proposing the following schedule and annual milestones (2016 - partial year):

Year	2016*	2017*	2018*	2019*	2020*	2021*
Anticipated percent reduction of Peoples cast iron and unprotected steel	1.8-2.2%	1.8-2.2%	1.8-2.2%	1.8-2.2%	1.8-2.2%	1.8-2.2%

\* Exceeds initial BMP commitment of 1.5%, Peoples plans to review and update the BMP Commitment and Implementation Plan annually, and submit any revisions by April 30 of each year.



## **Excavation Damages:**

**People's Damage Prevention Department currently utilizes the Dig Track Database/tracking system to collect and report data on all excavation damages. This database will be used to report the following data elements, starting in calendar year 2016:**

- Total number of excavation damages,
- Total number of excavation damages per thousand locate calls,
- Total number of excavation damages by pipe material (steel, plastic, copper) and part of system involved,
- Total number of excavation damages resulting in a release of natural gas,
- Total number of excavation damages which resulted in the pipeline being shut down,
- Total number of excavation damages where the Operator was given prior notification of excavation activity,
- Total number of excavation damages by type that caused excavation damage incidents,
- Total number of excavation damages by apparent root cause.

**The following data element is not available in 2016, but will be reviewed and may be added and reported in future years:**

- Total number of excavation damages on pipelines/facilities with SCADA in place.

**People's Damage Prevention Department has implemented the following actions to reduce the number of excavation damages:**

- *We have increased our efforts to decrease damages by instructing our inspectors to increase monitoring and communication with the contractors on these jobs and holding contractor meetings and meetings with repeat offender contractors.*
- *We are updating our line locating equipment to the RD7000 in order to facilitate more accurate locating and therefore decreasing damages. The new equipment has the capability to locate the newly installed marker balls.*
- *In 2015, a Ride-along audit program was instituted with the locators to ensure quality locating.*
- *Marker balls are currently being installed on new construction projects. They are placed at the curb stop, tap, and any turns or bends in a line.*
- *Marker balls are also installed on unlocatable main and service lines where tracer wire is not accessible.*
- *Jameson snakes were purchased and now being utilized throughout the company in an attempt to locate service lines with no / broken tracer wire.*



## **Additional Information/Context (optional):**

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### **Mains – Cast Iron and Unprotected Steel:**

In 2011 through 2012, Peoples launched a large-scale cast iron pipeline replacement initiative, which focused on cast iron infrastructure in urban and suburban areas within the Peoples system. Experience gained during this period has afforded Peoples the ability to efficiently forecast a replacement schedule for future replacements, and be able to be able to make the commitment to the Methane Challenge cast iron and unprotected steel BMP. Also, Peoples has recently partnered with Carnegie Mellon to undertake a methane-mapping project in an area of Pittsburgh slated to have extensive distribution pipeline replacement. A more detailed description of this is included as Attachment A.

### **Excavation Damages:**

Peoples has historically utilized the following actions to reduced excavation damages:

- All high profile lines (6” and above), and contractors using trenchless excavating, automatically become candidates for monitoring. This includes boring, trenching, auguring, HDD, etc.
- PNG locators also have the option to assign any ticket to become a candidate for monitoring. Dead-end feeds, non-conductive locates, and uncertainty with a locate are a few examples of tickets that may be assigned to monitoring.
- Communication of repeat offenders is sent monthly to supervisory personnel for distribution to crews.
- Since 2011, utility fault damages have been reviewed during a weekly Safety Call. After the damage investigation is complete, a presentation is made on the weekly call to the Supervisors and Managers for all to review. Discussion takes place on the circumstances involving the damage and how best practices and locating techniques may have prevented the damage.
- Scenarios and recommendations are then relayed to all employees for review at weekly safety tailgates. These reviews are not only beneficial to locators but to all employees who may be involved in locating lines as a back-up or taking afterhours calls.

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<sup>i</sup> Commitments should be listed per the Partner’s most recent Partnership Agreement. Partners may delete unused rows within the table, and may duplicate rows and add relevant details as needed (e.g. a corporate parent partner that has different commitments for each LDC can duplicate relevant rows to list the commitments for each LDC).

## **Attachment A**

### **Peoples - Carnegie Mellon University Collaboration**

# Carnegie Mellon University

August 22, 2016

To Whom It May Concern:

I submit this letter as recognition of the collaboration between Peoples Gas and the Center for Atmospheric Particle Studies and the Smart Infrastructure Institute at Carnegie Mellon University, and in support of Peoples Gas' participation in the Natural Gas STAR Methane Challenge Program.

The goal of the Carnegie Mellon-Peoples collaboration is to address issues around pipeline infrastructure design, maintenance, operation, and replacement by developing information and infrastructure-driven methane mapping and smart replacement prioritization strategies for the greater Pittsburgh area. This collaboration draws from expertise at Carnegie Mellon in both predictive analytics for infrastructure management and environmental monitoring.

Carnegie Mellon University is currently conducting a methane measurement campaign to assess quantitatively the benefits of the Peoples gas pipeline replacement program, as well as developing statistical models to relate pipeline characteristics and histories to methane leaks as measured by the monitoring campaign.

The targeted end goals of this collaboration include improved pipe repair and replacement plans, improved understanding of unaccounted-for gas, and quantification of the climate benefits associated with pipeline maintenance and replacement activities.

Please don't hesitate to contact me for any additional information.

Sincerely,



Allen L. Robinson