



## 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:

*Exelon Gas Utilities companies reflected in the table below are BGE, PECO and Delmarva*

Exelon Corporate Totals – Mains - miles to be replaced						
Year	2016	2017	2018	2019	2020	2021
Starting Inventory (total miles of CI and unprotected steel pipe from prior year's DOT Distribution report)	2,523.89	2,460.80	2,399.28	2,339.29	2,280.81	2,223.79
Cast/Ductile Iron (target miles to be replaced)	55.16	49.51	48.16	46.95	45.89	44.74
Unprotected Steel (target miles to be replaced)	7.94	12.01	11.82	11.53	11.13	10.85
Total target miles to be replaced	63.10	61.52	59.98	58.48	57.02	55.59
Planned Percent of Inventory to be Replaced	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Ending Inventory (total miles of cast/ductile iron pipe in DOT Distribution report as report this year)	2,460.80	2,399.28	2,339.29	2,280.81	2,223.79	2,168.20

*Exelon Gas Utilities companies reflected in the table below are BGE, PECO and Delmarva*

Exelon Corporate Totals – Services - counts to be replaced						
Year	2016	2017	2018	2019	2020	2021
Starting Inventory (total CI and unprotected steel services from prior year's DOT Distribution report)	123,212	120,748	118,333	115,966	113,647	111,374
Cast/Ductile Iron (target services to be replaced)	0.41	0.23	0.64	0.84	0.82	0.77
Unprotected Steel (target services to be replaced)	2463.83	2414.72	2366.01	2318.49	2272.11	2226.70
Total target services to be replaced	2464.24	2414.96	2366.66	2319.32	2272.94	2227.48
Planned Percent of Inventory to be Replaced – Goal is to replace as encountered	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Ending Inventory (total services of cast/ductile iron pipe in DOT Distribution report as reported this year)	120,748	118,333	115,966	113,647	111,374	109,146



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

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Each of the Exelon Utilities with natural gas distribution, including BGE, PECO and Delmarva, will target meeting or exceeding the 2% per year replacement rate for cast iron and unprotected steel piping, although final performance will be based on the combined efforts and total miles of this type of pipe as replaced by all Exelon utilities compared to the combined inventory as measured at the beginning of each year.

Both PECO and BGE have longer term pipe replacement commitments as detailed below:

- PECO has a commitment with their PUC to replace all aging infrastructure over the next 20 years. This is an average annual replacement rate of 5% per year, but no specific annual rate.
- BGE has a commitment through the Baltimore STRIDE program to replace all of it's aging infrastructure over the next 30 years resulting in an average annual replacement rate of 3.3% per year, but no specific annual rate.

Maintaining a 2% per year replacement rate during this first time period is considered a challenge due to executive risks such as emerging reliability and safety issues that may require work to be done on other newer portions of their systems, needed expansions of their systems, or ensuring trained craftsmen are available to cover all of the work that needs to be done as increased focus is placed on this segment of the industry. Exelon will re-assess their commitment level each year when they report their performance and will determine if a follow-on goal can be made at the completion of this commitment.

#### **Historic Actions:**

BGE, PECO and Delmarva have already been working to upgrade this aging piping over the past several years. Since 2012, each company has removed the following amounts of piping – translating into increased system safety and reducing GHG emissions by over 19,500 metric tons annually.

Exelon OpCo	Miles of Cast/Ductile Iron Mains Replaced since 2012	Miles of Unprotected Steel Mains Replaced since 2012	Resulting GHG Emissions Reductions <sup>2</sup> (metric tons CO2e)
BGE	64	21	7,106
PECO	75	41	9,991
Delmarva	20	5	2,440

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<sup>2</sup> based on 8,760 hour year – net replacement plastic