



Natural Gas STAR Methane Challenge Program Implementation Plan

Partner Name

Current as of (date)

Partner Implementation Manager

Name: _____

Title: _____

Address: _____

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Natural Gas STAR Methane Challenge Program Implementation Plan

Partner Methane Challenge Commitments¹

BMP Commitment Option

	Source	Start Date	Achievement Year
Onshore Production			
<input type="checkbox"/>	Pneumatic Controllers		
<input type="checkbox"/>	Fixed Roof, Atmospheric Pressure Hydrocarbon Liquid Storage Tanks		
Gathering and Boosting			
<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		
Natural Gas (NG) Processing			
<input type="checkbox"/>	Reciprocating Compressors - Rod Packing Vent		
<input type="checkbox"/>	Centrifugal Compressors - Venting		
NG Transmission & Underground Storage			
<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		
NG Distribution			
<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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¹ 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).

Natural Gas STAR Methane Challenge Program Implementation Plan

Milestones/Timeframes for Meeting Commitments

Provide information on steps for achieving commitments such as anticipated rate of progress, key milestones, or other context (e.g., referencing work to be done during the next planned shutdown of a facility).

See Attachment A

Natural Gas STAR Methane Challenge Program Implementation Plan

Additional Information/Context (optional)

Use this space, if desired, to provide other information about Program participation, such as plans for expanding Methane Challenge commitments, how historical actions informed Methane Challenge commitments, or other information on how the Program will be implemented.

See Attachment B

Attachment A

*Natural Gas STAR Methane Challenge Program
Implementation Plan - National Fuel Gas Distribution Corporation*

Milestones/Timeframes for Meeting Commitments

Mains and Services

As discussed in Attachment B, National Fuel Gas Distribution Corporation (“NFGDC”) has made significant progress reducing the amount of cast/wrought iron and unprotected steel mains and unprotected steel services in its natural gas distribution system. Based on historical performance, NFGDC is committing to a 3% per year replacement rate, which is above the rate required for our mileage tier. Furthermore, NFGDC will continue to upgrade unprotected steel services¹ when such mains are retired.

Per program requirements, Methane Challenge data will be submitted to EPA as a supplemental report under the Greenhouse Gas Reporting Program. Mechanisms already exist to keep senior management and other company stakeholders regularly informed of NFGDC’s progress regarding pipeline replacements.

Excavation Damages

With the exception of only a few data elements, NFGDC’s Damage Prevention Group (see Attachment B) is already collecting the data required for the Methane Challenge on each damage incident. The missing data elements will be added to the existing data collection program within six (6) months of NFGDC’s Methane Challenge start date.

Mechanisms already exist to keep management and other stakeholders regularly informed of excavation damage rates and trends. Incidents involving significant gas loss will be highlighted during quarterly meetings.

At the end of the commitment period, NFGDC will evaluate its data to determine a damage reduction goal for the next commitment period.

Note: Pennsylvania recently shifted One Call enforcement from the Department of Labor and Industry (L&I) to the Public Utility Commission (PUC). NFGDC believes it can assist the PUC in enforcement efforts and that this may have a positive impact on damage reduction.

As described in Attachment B, National Fuel already maintains a robust damage prevention program and expects to achieve the data collection BMP within a relatively short timeframe. However, given the change in enforcement, a 2021 target date was chosen in order to evaluate how enforcement will influence the rate of damage incidents.

¹ National Fuel does not have cast iron services in its system.

Attachment B

*Natural Gas STAR Methane Challenge Program
Implementation Plan - National Fuel Gas Distribution Corp.*

Additional Information and Context

National Fuel Gas Distribution Corporation (“NFGDC”) owns and operates local natural gas distribution companies (LDC’s) in western New York and northwestern Pennsylvania. NFGDC serves approximately 750,000 residential, commercial, and industrial customers.

NFGDC, through its direct predecessors, can trace its roots to the beginnings of the natural gas industry. Like other northeastern utilities, NFGDC is working hard to modernize its infrastructure in a way that prioritizes safety and reliability first, but also reduces potential methane emissions and maintains affordability for our customers.

Mains

For many years, NFGDC has been steadily reducing its inventory of unprotected steel and cast/wrought iron mains, with data for the past 5 years shown in Table 1. During this period, these mains have been replaced, upgraded, or otherwise retired at an average rate of 133 miles per year.

Table 1 also demonstrates that NFGDC has placed a higher priority on retiring cast iron (grey iron) mains as opposed to wrought iron. Wrought iron has mechanical properties similar to steel and exhibits fewer leaks per mile than cast iron. As shown below, cast iron mileage has been reduced 45% in the last five years. Since 2012, NFGDC has seen a 13.5% reduction in greenhouse gas emissions reported to the EPA under Subpart W of 40 CFR Part 98.

Table 1: NFGDC Mains, 2013-2017

Year	Unprotected Steel (mi)	Cast Iron (mi)	Wrought Iron (mi)	Total (mi)	Change from prior year (mi)	Change from prior year (%)
2013	2,710	103	407	3,220	---	---
2014	2,611	92	401	3,104	116	3.6%
2015	2,482	82	389	2,953	151	4.9%
2016	2,373	70	370	2,813	140	4.7%
2017	2,273	57	358	2,688	125	4.4%

As described in Attachment A, NFGDC plans to continue retiring these classes of pipe at a rate exceeding the minimum Methane Challenge rate for its mileage tier assuming continued support from NFGDC’s relevant rate-making agencies.

Services

It is NFGDC’s policy to upgrade services when unprotected steel or cast/wrought iron mains are upgraded. As such, the BMP for services is already a part of our business operations. Historical data for unprotected steel services is provided in Table 2. Note that NFGDC does not have any cast iron services in its system.

Table 2: NFGDC Unprotected Steel Services, 2013-2017

Year	Number of Unprotected Steel Services	Change from prior year (# services)	Change from prior year (%)
2013	79,524	---	---
2014	75,239	4,285	5.4%
2015	71,071	4,168	5.5%
2016	67,279	3,792	5.3%
2017	63,564	3,715	5.5%

On average, NFGDC has been retiring almost 4,000 unprotected steel services per year and plans to continue this practice in conjunction with its retirement of vintage mains. The target date for this BMP is aligned with the target date for mains.

Excavation Damages

NFGDC’s “Damage Prevention Group” is specifically tasked with reducing the number of third-party damages to NFGDC’s system. By collecting data, analyzing incidents, and actively promoting excavation safety, the Damage Prevention Group has reduced excavation damages 31% in the last 5 years. Some examples of targeted programs that have been implemented include, among others:

- Educational programs for contractors to discuss excavation safety with emphasis on repeat offenders
- Working with PA DOT to resolve misunderstandings of OneCall exemptions
- Providing equipment rental companies with OneCall brochures and stickers to distribute to customers
- Sponsoring Excavator Safety Breakfasts and participation in state damage prevention councils

Other

NFGDC has been a longstanding member of various trade organizations such as the American Gas Association (AGA) and the Interstate Natural Gas Association of America (INGAA). These organizations have been supportive of voluntary efforts to reduce methane emissions throughout the natural gas value chain and were actively engaged with EPA in developing the Methane Challenge. Furthermore, these organizations support research and development aimed at better understanding methane emissions and developing innovative methane mitigation solutions. NFGDC will continue to support and play an active role in these organizations.