OMB Control No. 2060-0328
Approval expires 04/30/2022

Natural Gas STAR Annual Report - Distribution Segment

FORM VERSION: REPORTING SEASON 2021 (for activities completed in 2020)

RS2021DISTRv1

Partner Name	
Reporting Year	2020

Use the Table of Contents below to navigate to the different tabs of the form. You can use column B to indicate if you reported data on a specific tab.

Distribution Emission Sources	Data Reported	Information
Equipment Leaks	No	Directed inspection and maintenance at gate stations and surface facilities
Mains	No	Replacement of Cast Iron (CI) and Unprotected Steel (UPS) Mains with Plastic and Protected Steel, or rehabilitation of CI & UPS with plastic liners/inserts
Services	No	Replacement of Cast Iron (CI) and Unprotected Steel (UPS) Services with Plastic and Protected Steel, or rehabilitation of CI & UPS with plastic liners/inserts
Additional Distribution Activities	No	Use this tab to report all other methane reductions in the Distribution segment. You will be able to select the technology/practice used from the list of Natural Gas STAR Partner Reported Opportunities. If the activity you are reporting is not included in the list, please contact EPA at GasSTAR@epa.gov

Update Partner Information (If applicable)

New Partner Name	

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Equipment Leaks

Directed inspection and maintenance at gate stations and surface facilities

Year	Total Number of Surveys Conducted	Total Number of Leaks Found	Total Number of Leaks Repaired	Calculation Method: Default or Other?	Calcu
					Total Number of Facilities at Which Leaks Repaired

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ulate Reductions Using Default Values	Other C
Calculated Total Methane Emission Reduction based on default values {[Total Number of Facilities at Which Leaks Repaired]x[1,700 Average Annual Leak Rate per Facility at 70% Efficiency]}	Total Methane Emission Reduction Based on Actual Field Measurement or Other Assumptions (Mcf/yr)
[redacted]	

Calculation Method
Explain Reduction Calculation Used

Provide additional comments or detail about how your company implemented this BMP

Distribution Mains

Replacement of Cast Iron (CI) and Unprotected Steel (UPS) Mains with Plastic and Protected Steel, a

Year	Cast Iron Mains - Miles			Unpr
	Cast iron replaced with plastic	Cast iron replaced with protected steel	Cast iron rehabilitated with plastic liners	Unprotected steel replaced with plastic

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or rehabilitation of CI & UPS with plastic liners/inserts

otected Steel Mains - Miles		
Unprotected steel cathodically protected or replaced with protected steel	Unprotected steel rehabilitated with plastic liners	Calculated Total Methane Emission Reductions (Mcf/yr)
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Provide additional comments or detail about how your company implemented this BMP

Distribution Services

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Replacement of Cast Iron (CI) and Unprotected Steel (UPS) Services with Plastic and Protected Steel, or re

Year	Cast Iron Services - Count				Unprotected Stee	
	Cast iron replaced with plastic	Cast iron replaced with protected steel	Cast iron replaced with copper	Cast iron reconditioned with plastic liners	Unprotected steel replaced with plastic	Unprotected steel replaced with protected steel

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ehabilitation of CI & UPS with plastic liners/inserts

l Services - Count		Calculated Total Methane Emission Reductions (Mcf/yr)
Unprotected steel replaced with copper	Unprotected steel reconditioned with plastic liners	
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Provide additional comments or detail about how your company implemented this BMP

Additional Distribution Activities

Start Year	Select the Activity	New or Ongoing?	Eligible Sunset Years for this Activity

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Automatically calculate ongoing reductions (if Sunset Years >1)?	End Year	Total Methane Emission Reduction (Mcf/yr)	Basis for Emission Reduction Estimate

Explain Reduction Calculation Used

Describe how your company implemented this activity (e.g., number of units installed or other activities conducted)

This sheet summarizes values used in calculations in this workbook. If you have questions on any

Mains and Services

Source: 40 CFR Part 98, Subpart W, Table W-7

Emission factors	Mains (mcf/yr/mile)	Services (mcf/yr/count)
Cast Iron	238.71	1.66
Unprotected Steel	110.20	1.66
Protected Steel	3.07	0.18
Plastic	9.9	0.01
Copper	NA	0.26

Replacement factors	Cast Iron Replaced	UPS Replaced
MAINS Protected Steel	235.64	107.13
MAINS Plastic	228.81	100.30
SERVICES Protected Steel	1.48	1.48
SERVICES Plastic	1.65	1.65
SERVICES Copper	1.4	1.4

Equipment Leaks

Default Values

Average Annual Leak Rate per Facility[1]	1,700	mcf/yr
Efficiency[2]	0.7	percent (expressed as decimal)

Notes:

[1] Derived from EPA Report to Congress, 1993.

[2] Derived from "Cost Effective Leak Mitigation at Natural Gas Transmission Compressor Stations," sponsore

y of the values used, please contact EPA at GasSTAR@epa.gov

"replacement factors" calculated as the
difference between emission factors for the
original and replacement pipeline material

ed by the Pipeline Research Committee International (PRCI), EPA and GRI, 1999.