Natural Gas STAR Annual Report - Distribution Segment

FORM VERSION: REPORTING SEASON 20XX

Partner Name	
Reporting Year	20 <mark>XX</mark>

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		Directed inspection and maintenance at gate stations and surface facilities
<u>Mains</u>		Replacement of Cast Iron (CI) and Unprotected Steel (UPS) Mains with Plastic and Protected Steel, or rehabilitation of CI & UPS with plastic liners/inserts
<u>Services</u>		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		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

The public reporting and recordkeeping burden for this collection of information is estimated to average 51 hours for each new response and 25 hours for subsequent responses. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Equipment Leaks

Directed inspection and maintenance at gate stations and surface facilities

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

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ulate Reductions Using Default Values	Other (
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)

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, (

	cment of Cast Iron (CI) and Unprotected Steel (UPS) Mains with Plastic and Protected Steel, c Cast Iron Mains - Miles Unpr				
Year		Cast Iron Mains - Miles			
	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 -	x UPS With plastic liner	Calculated Total
Unprotected steel cathodically protected or replaced with protected steel	Unprotected steel rehabilitated with plastic liners	Methane Emission Reductions (Mcf/yr)
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Provide additional comments or detail about how your company implemented this BMP

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

Year	Cast Iron Services - Count				nprotected Stee		
, (3.1	Cast iron replaced with plastic	Cast iron replaced with protected steel	Cast iron	Cast iron reconditioned with plastic liners	Unprotected steel replaced with plastic	Unprotected steel replaced with protected steel	

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?habilitation of CI & UPS with plastic liners/inserts

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

Additional Distribution Activities

Chart Va	Coloot the - A -15 -15 -	ا دانونادا	Automostis alla
Start Year	Select the Activity	Eligible Sunset	Automatically calculate ongoing reductions (if Sunset Years >1)?
		Years	reductions (if
		for this	Sunset Years >1)?
		for this Activity	cariset rears. 1/1

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Fnd Year	Total Methane	Basis for Emission Reduction
Lita Teal	Emission	Estimate
	Reduction	
	(Mcf/yr)	

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Explain Reduction Calculation Used

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

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

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 Facility¹	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," sponsor

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.