

## Natural Gas STAR Annual Report - Distribution Segment

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

RS2021DISTRv1

<b>Partner Name</b>	
<b>Reporting Year</b>	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
<a href="#">Equipment Leaks</a>	No	Directed inspection and maintenance at gate stations and surface facilities
<a href="#">Mains</a>	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
<a href="#">Services</a>	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
<a href="#">Additional Distribution Activities</a>	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)

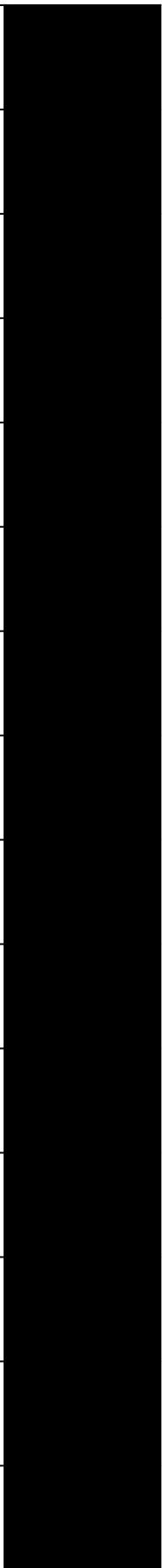
<b>New Partner Name</b>	
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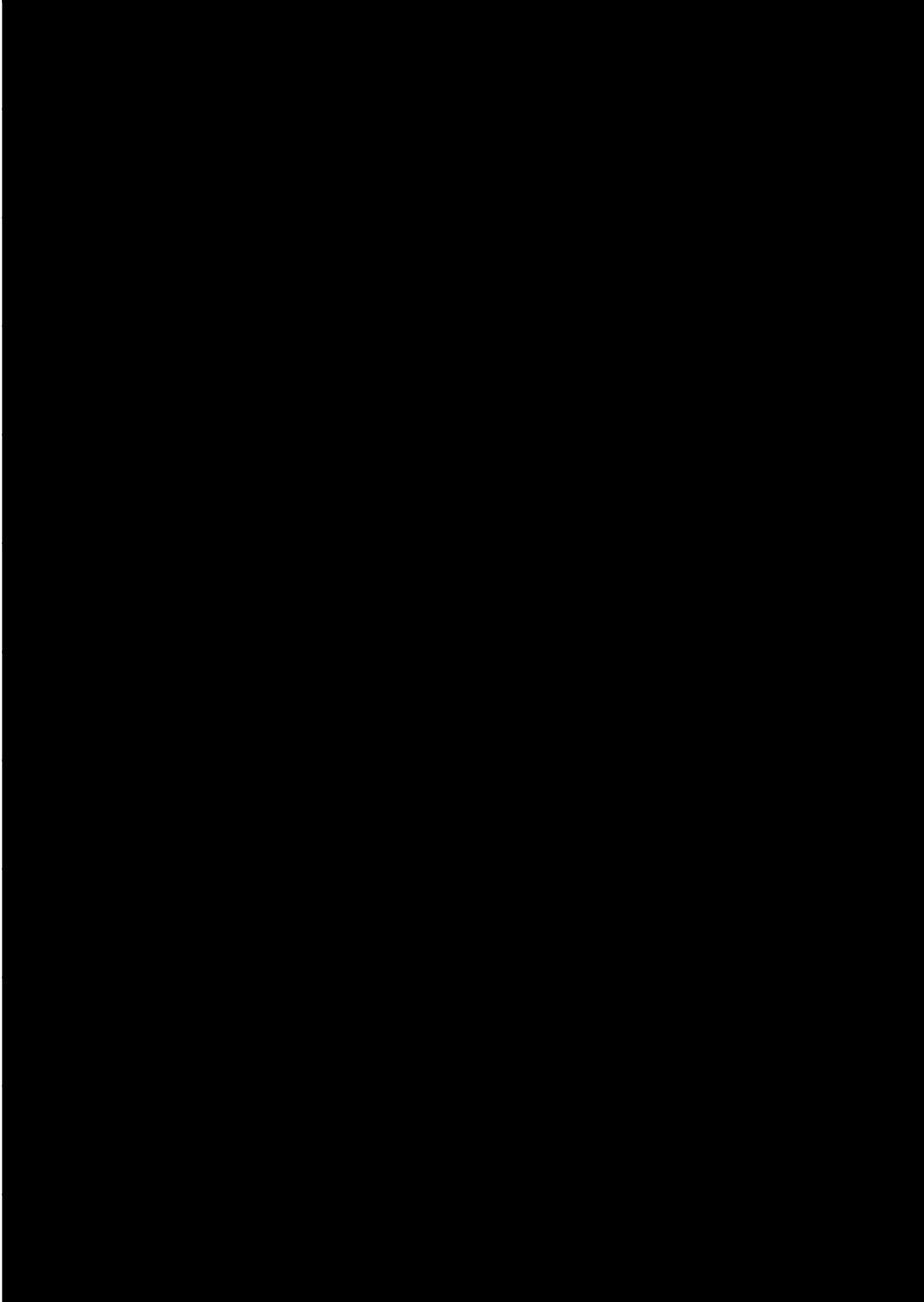


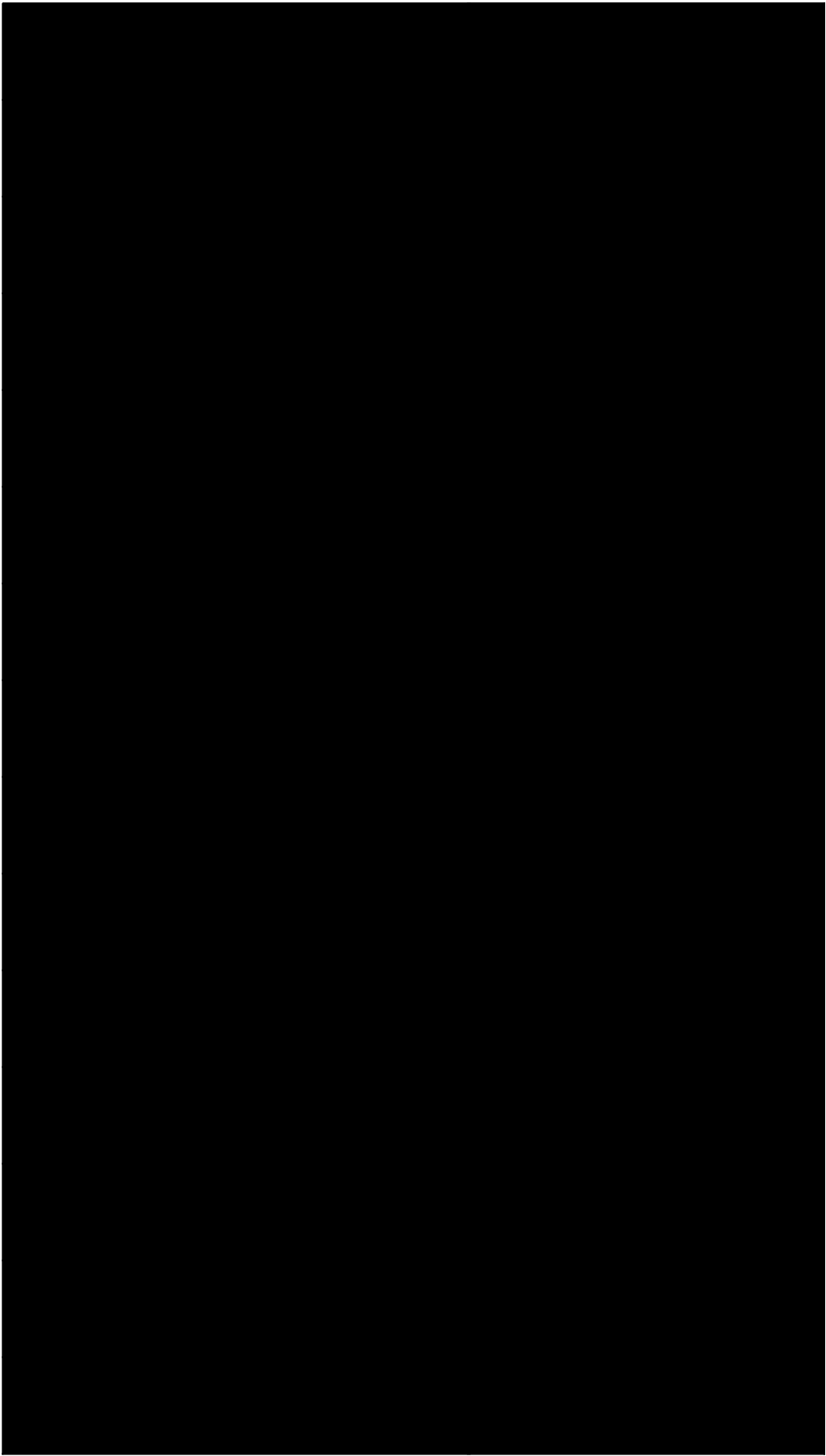


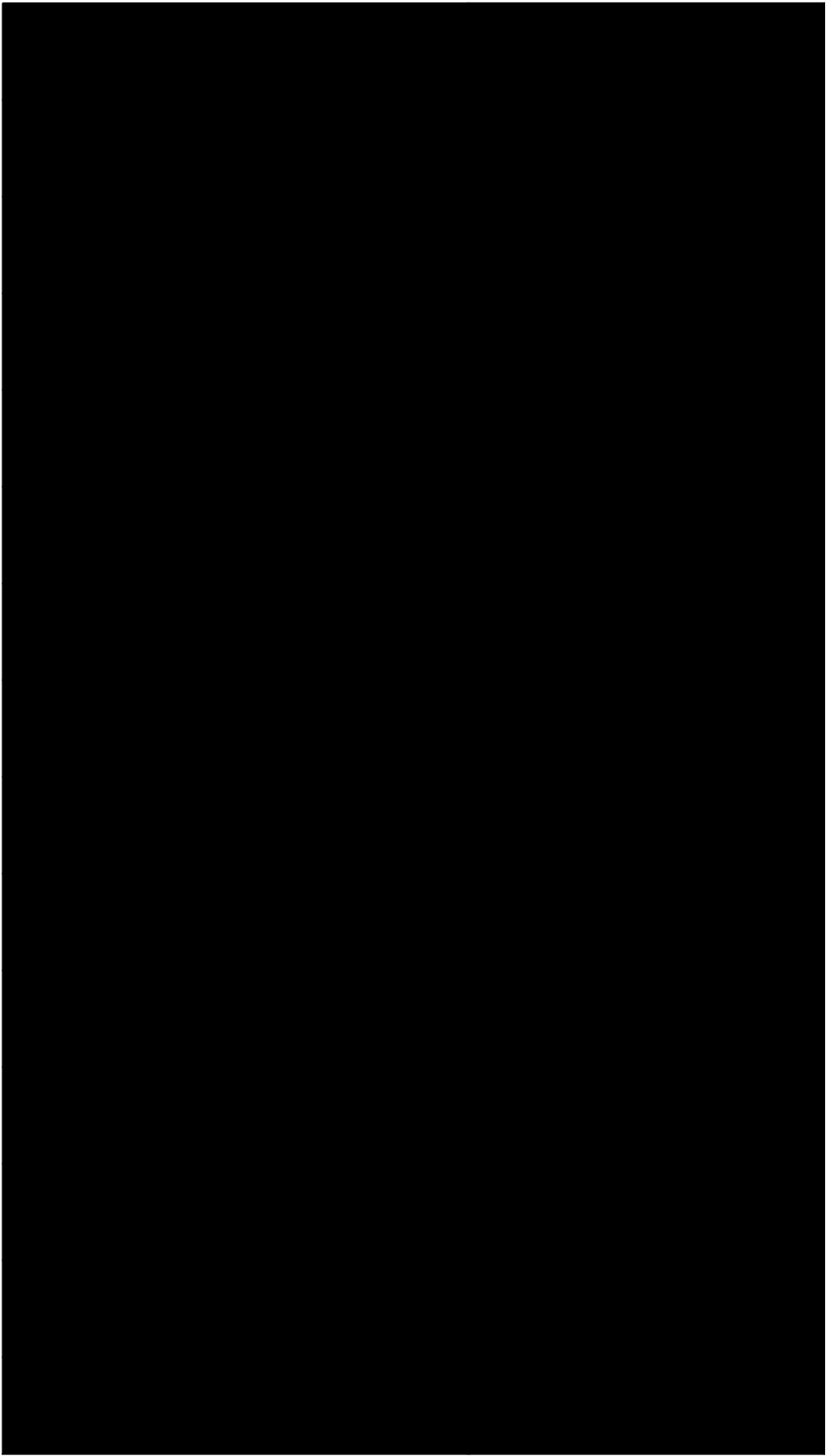


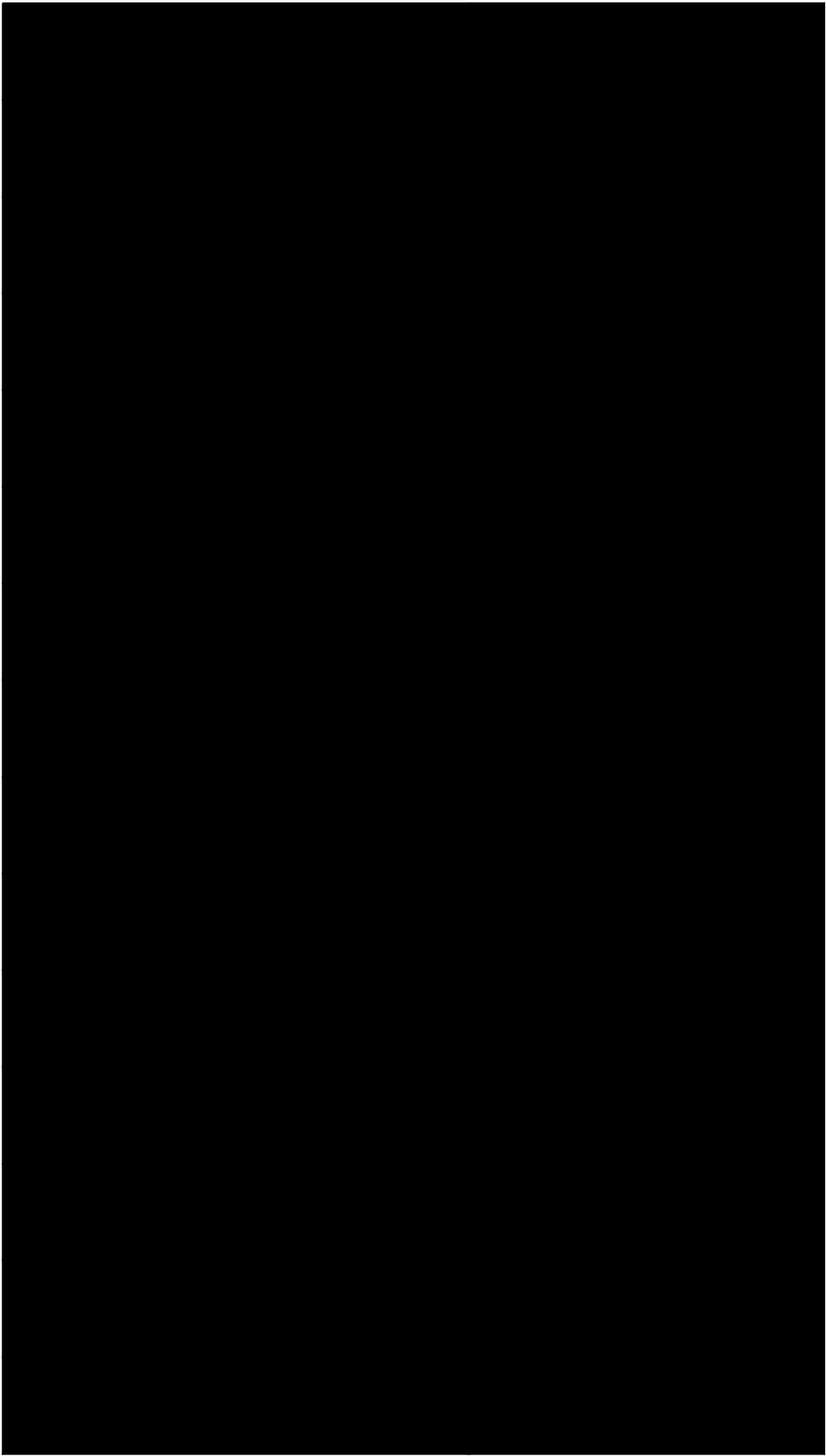
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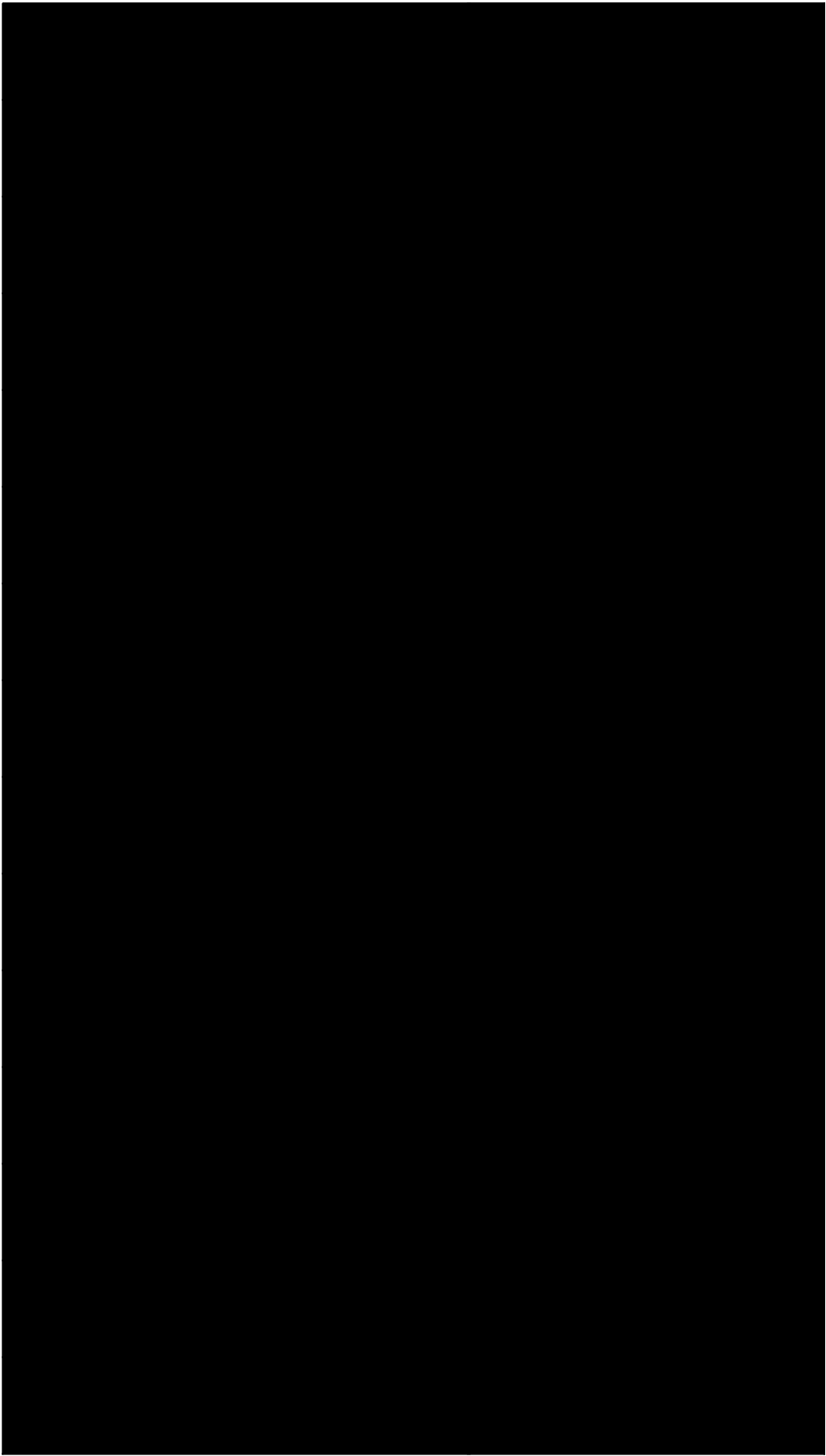
Methane Reductions Using Default Values	Other (
Calculated Total Methane Emission Reduction based on default values {[Total Number of Facilities at Which Leaks Repaired]x[1,700 Average Annual Leak Rate per Facility at 70% Efficiency]}	Total Methane Emission Reduction Based on Actual Field Measurement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

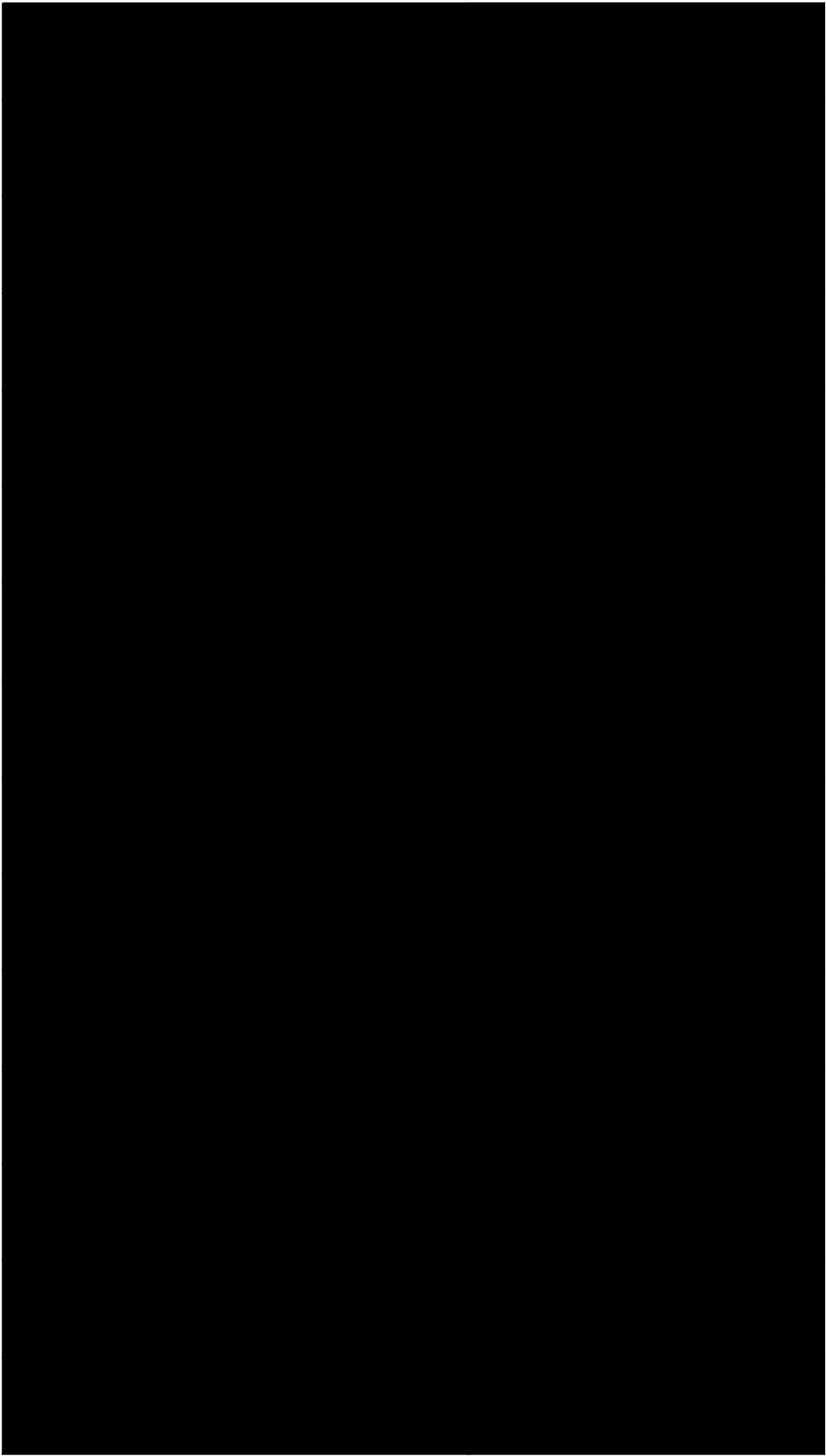


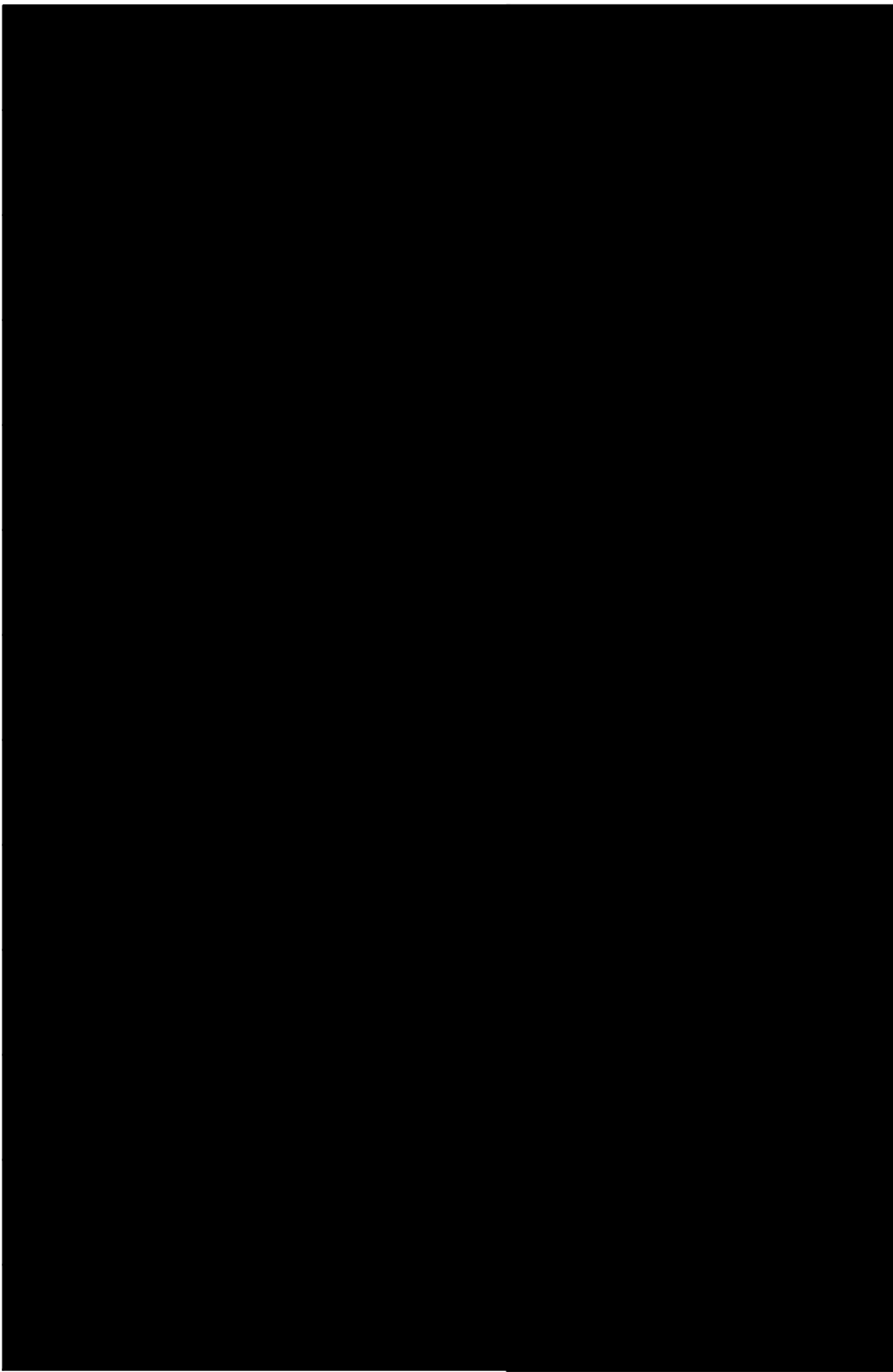








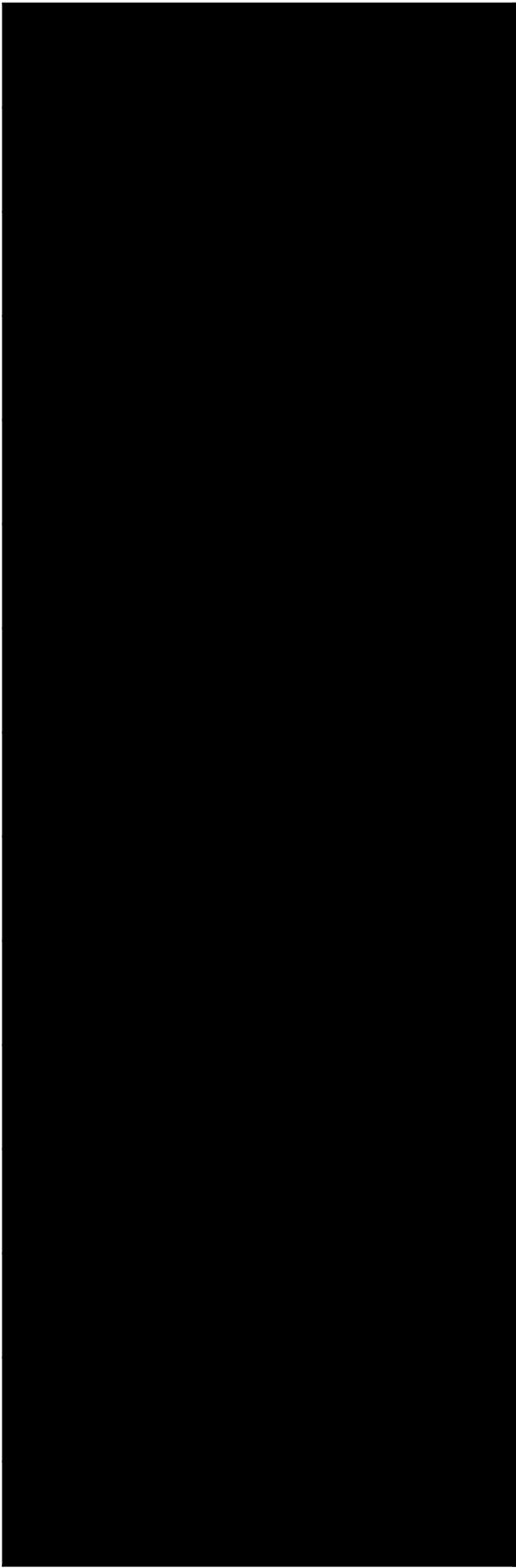


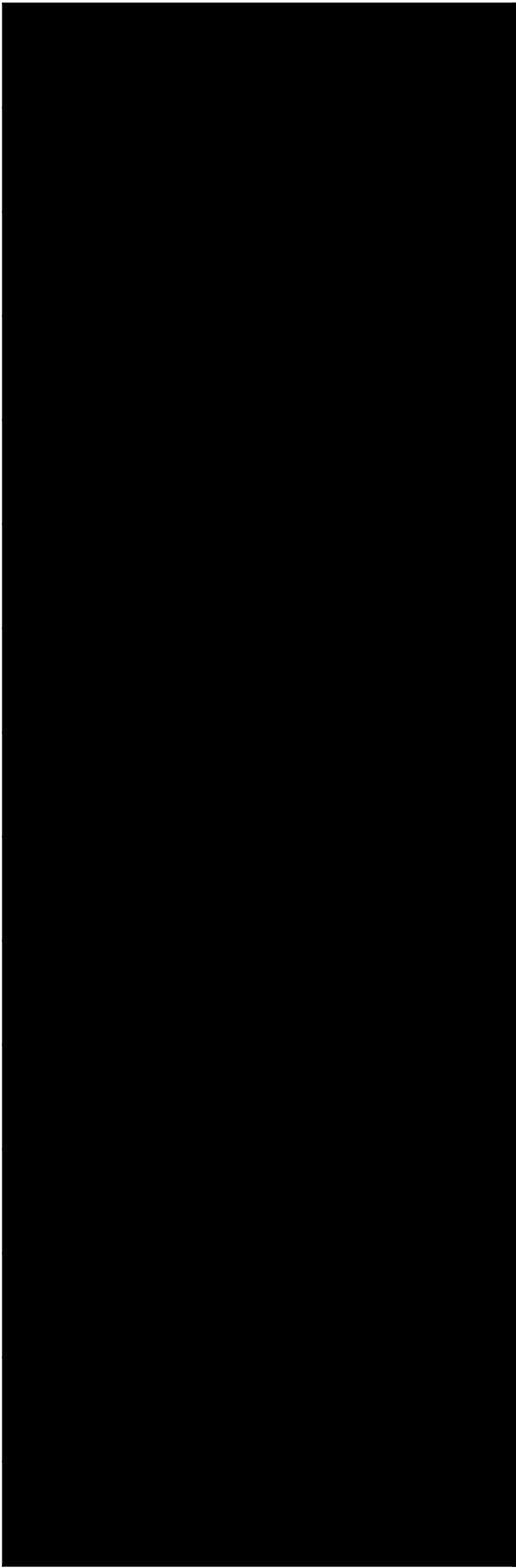


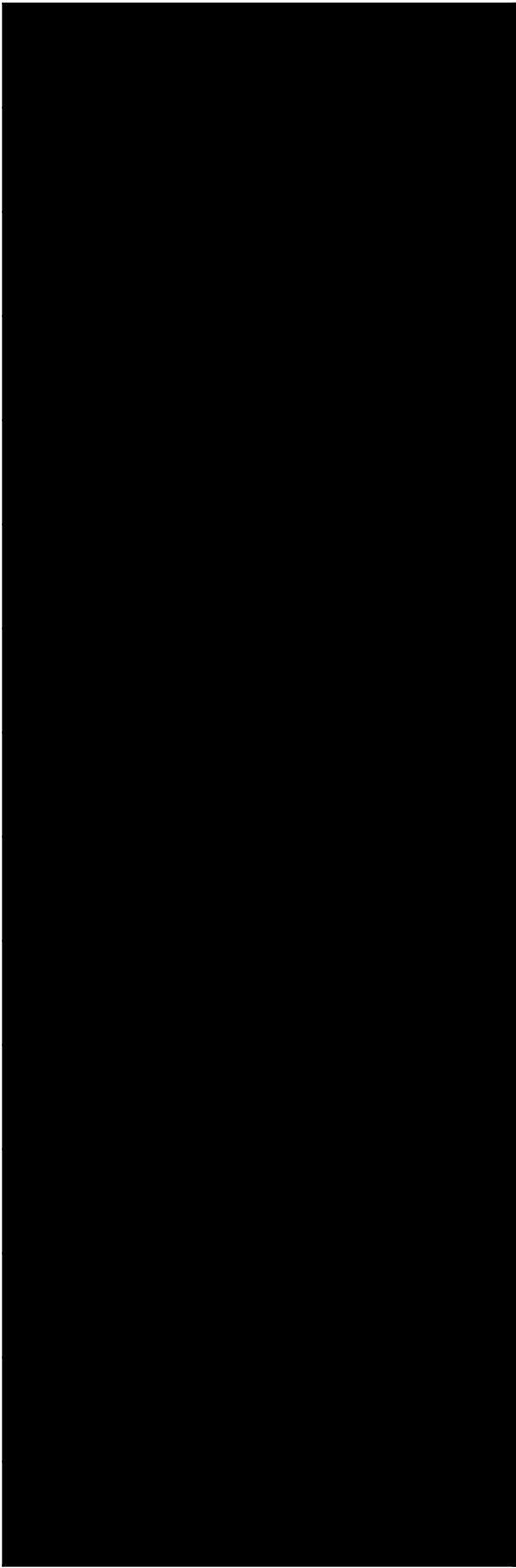
**Calculation Method**

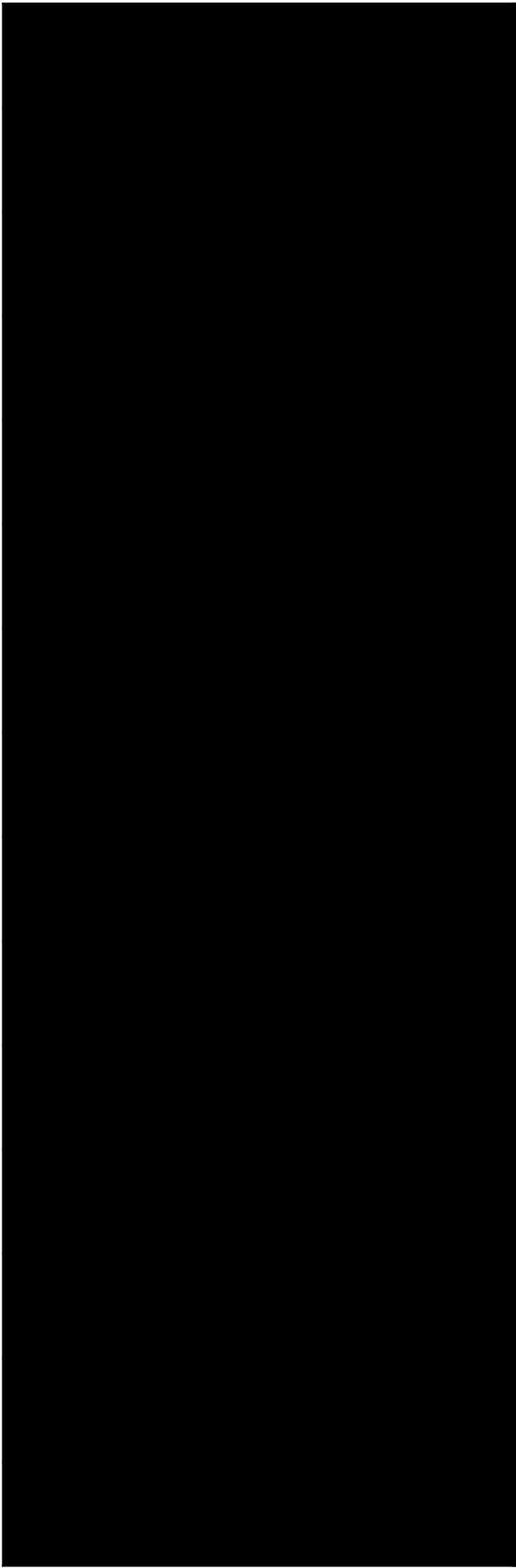
Explain Reduction Calculation Used

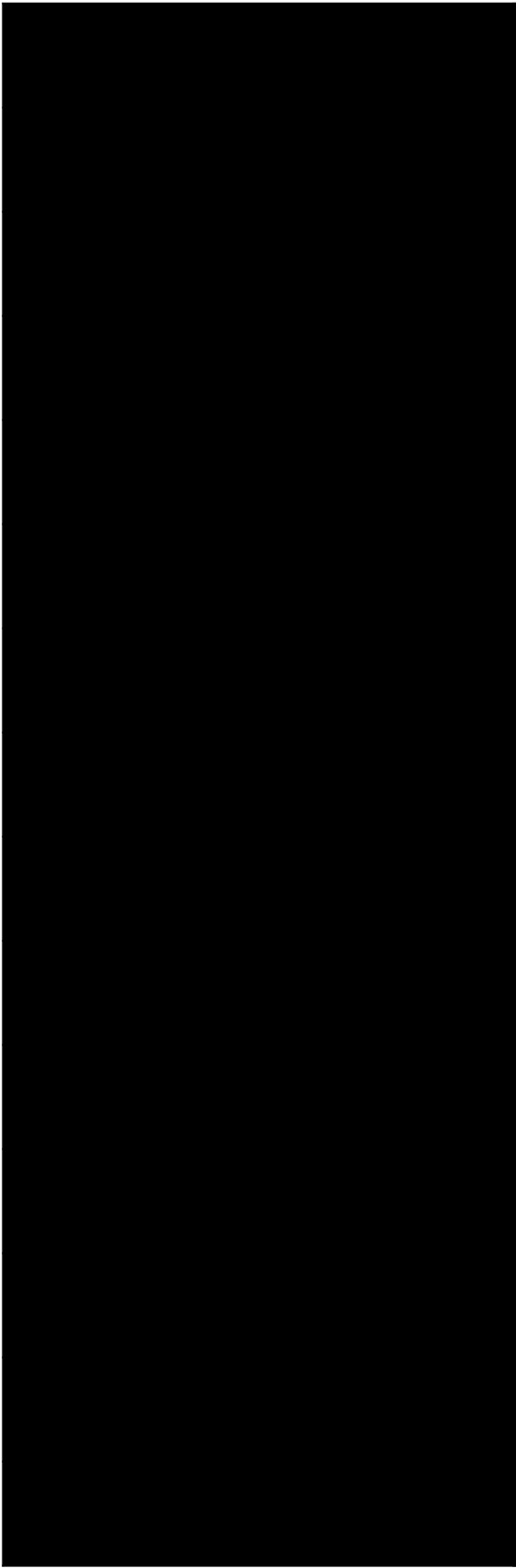


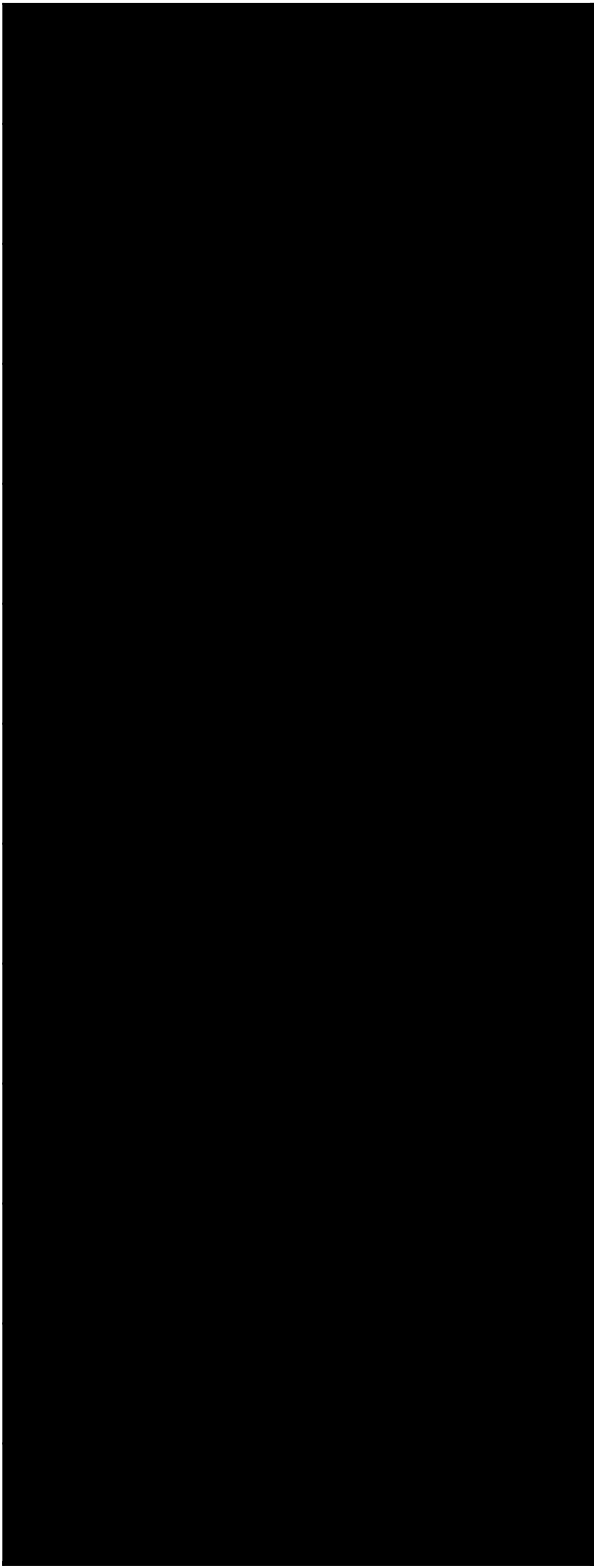










































































































































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Automatically calculate ongoing reductions (if Sunset Years >1)?	End Year	Total Methane Emission Reduction (Mcf/yr)	Basis for Emission Reduction Estimate















































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 <sup>1</sup>	1,700	mcf/yr
Efficiency <sup>2</sup>	0.7	percent (expressed as decimal)

Notes:

<sup>1</sup> Derived from EPA Report to Congress, 1993.

<sup>2</sup> Derived from "Cost Effective Leak Mitigation at Natural Gas Transmission Compressor Stations," sponsored

of the values used, please contact EPA at [GasSTAR@epa.gov](mailto:GasSTAR@epa.gov)

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

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