

NGSI Methane Emissions Intensity Protocol

A consistent approach for company-level reporting within each segment of the U.S. natural gas supply chain

- ✓ **Methane Emissions Intensity White Paper** (*April 2019*)
- ✓ **Draft Protocol** (*July 2019*)
- ✓ **Final Draft Protocol** (*December 2019*)
- ✓ **Pilot Process** (*Summer 2020*)

- **Protocol Version 1.0** (*2021*)

Methodology

Methane Emissions
Methane Throughput

Segments

- Onshore Production
- Gathering & Boosting
- Processing
- Transmission & Storage
- Distribution

Draft NGSi Template to Assist in Calculation

File Home Insert Draw Page Layout Formulas Data Review View Help

B64 =IFERROR(SUMPRODUCT(B46:I46,B47:I47)/SUM(B47:I47),"Needs Data")

Note: The NGSi Pilot Protocol includes emissions from all facilities, including emissions from facilities that are below the Greenhouse Gas Reporting Program (GHGRP) emissions threshold, directly into Row 21. The company can then enter emissions from additional sources not covered by GHGRP in the section that starts on Row 23 following the described methodologies. For sources using the identified methodologies.

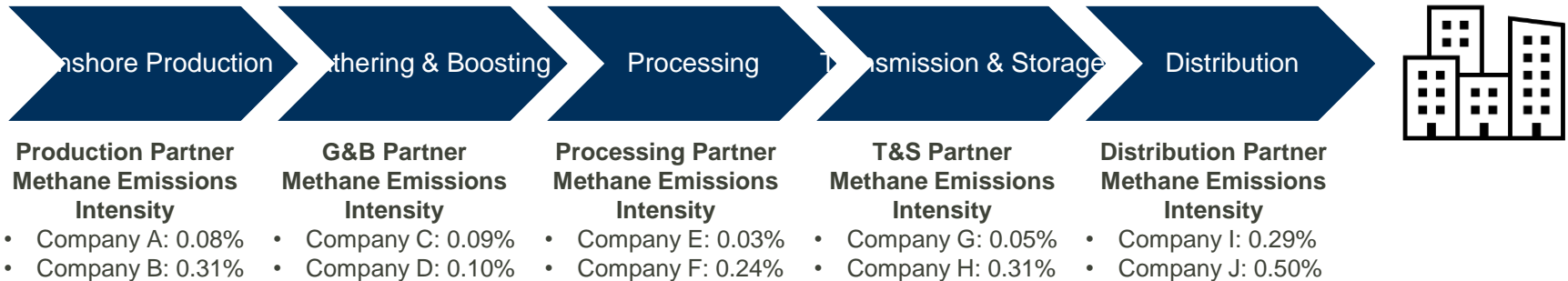
Draft NGSi Template to assist in Calculations

Onshore Production Segment Emissions Calculated Using GHGRP Methodology								
	Methane Emissions (Metric Ton CH4) in 2019							
	Basin A	Basin B	Basin C	Basin D	Basin E	Basin F	Basin G	Basin H
Total GHGRP Methodology Emissions (MT)								
Onshore Production Segment Emissions Calculated Using GHGI Methodology - Additional Data Not in Subpart W Reporting								
Activity Data Inputs	Activity Data Counts to Drive Calculations							
	Basin A	Basin B	Basin C	Basin D	Basin E	Basin F	Basin G	Basin H
Blowdowns – Vessel Blowdowns								
Compressors, Centrifugal with dry seals								
Compressor Starts								
Pressure Relief Valves, Upsets								
Storage Vessels, Floating roof tanks								
Well Drilling								
Onshore Production Segment Emissions Calculated Using GHGI Methodology - Emission calculations based on data entered in the previous section								
Emissions Source	Methane Emissions (Metric Ton CH4) in 2019							
	Basin A	Basin B	Basin C	Basin D	Basin E	Basin F	Basin G	Basin H
Blowdowns – Vessel Blowdowns	0	0	0	0	0	0	0	0
Compressors, Centrifugal with dry seals	0	0	0	0	0	0	0	0
Compressor Starts	0	0	0	0	0	0	0	0

Example: Supply Chain Engagement

Companies in the natural gas supply chain can use the NCSI Methane Emissions Intensity Protocol to engage supplier partners and better understand supply chain methane emissions.

For example, a power company might list its supplier partners as part of its ESG reporting and include the segment-specific NCSI Methane Emissions Intensity for each partner.



Note: Examples based on MJB&A analysis of public data. Consistent with the NCSI Protocol, these values are not additive across the supply chain, they reflect methane emissions as a percent of segment throughput.

NGSI Publicly Reported Data

Participating companies in each segment will be asked to **disclose information relevant to the calculation of methane emissions intensity**. Below is an example for the distribution segment.

NGSI Distribution Segment Publicly Reported Data Template

Disclosure Element	Reported Data	Description
Total Methane Emissions		Total methane emissions (metric tons) associated with natural gas distribution
Natural Gas Delivered to End Users, As Reported		Volume of natural gas delivered to end users (thousand standard cubic feet)
Natural Gas Delivered to End Users, Normalized		Normalized volume of natural gas delivered to end users (thousand standard cubic feet)
Methane Content of Delivered Natural Gas		Methane content of transported natural gas (percent)
NGSI Methane Emissions Intensity		Methane emissions intensity associated with natural gas distribution (percent)
Normalized NGSI Methane Emissions Intensity		Methane emissions intensity associated with natural gas distribution, calculated using normalized throughput (percent)

Differentiated Gas – RMI MiQ Standard *Incorporates NGSi*

Rocky Mountain Institute's (RMI) -- MiQ Certification Program

- Non-Profit Partnership with SYSTEMIQ
- For Natural Gas Producers – Basin or Company-Wide
- Grades A to F

MIQ Standard has 3 components:

1. NGSi Methane Intensity
2. Company's policies aligns with Methane Guiding Principles (MGP)
3. Company uses leak detection to catch and fix any "super emitters"

Certified by Accredited Assessor

Opportunities to offer lower methane natural gas – Differentiated from Commodity