

U.S. EPA Natural Gas STAR

Methane Challenge Program

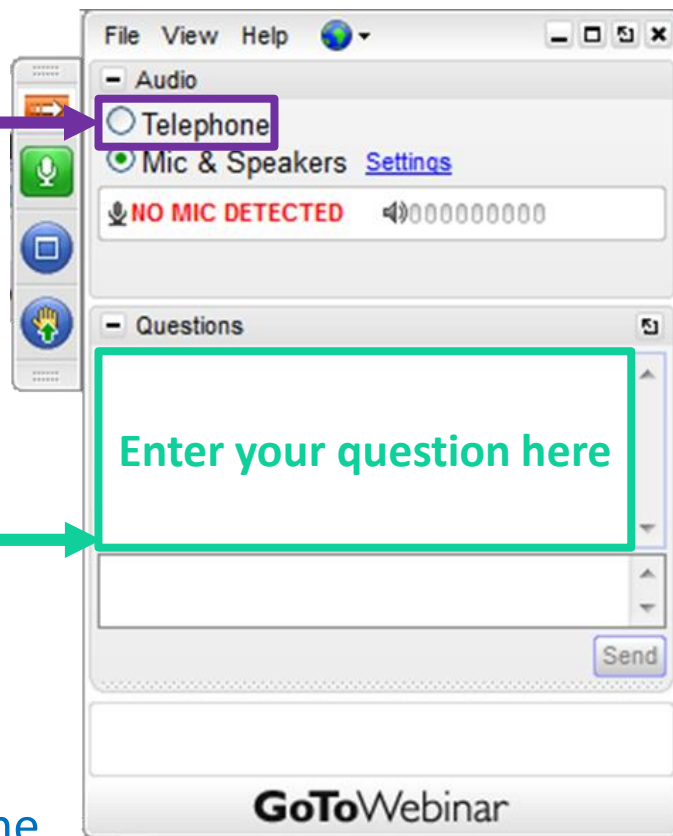
Best Management Practice (BMP) Commitment:
Distribution Segment Webinar

February 18, 2016



Tips

- All participants will be muted at the beginning of the webinar
- When you join, audio will be through your computer
 - Use headphones, or
 - Choose telephone and follow the prompts to dial in
- Please do not put this call on hold
- Questions submitted during the webinar will be reviewed at the end of the webinar
 - Type a question here
- If you are experiencing technical difficulties, please contact Chris Bachman at 703-795-4473



Members of the press--please identify yourself by name and organization by sending a note now via the Question Pane

Welcome

- Agenda for Today's Webinar

- Background
- Key Elements of the Best Management Practice (BMP) Commitment Framework
- Overview of *Distribution Segment Supplementary Technical Information*
- Next Steps
- Questions and Wrap Up

Background

Background

- In 2015 EPA released Methane Challenge Framework and technical proposals for comment
- EPA incorporated feedback to finalize
 - BMP Commitment Framework
 - BMP Commitment: Distribution Segment Supplementary Technical Information
- Methane Challenge is a key part of Administration efforts to reduce methane emissions
 - March 2014 – White House releases the Strategy to Reduce Methane Emissions
 - January 2015 – Administration announces a new goal to cut methane emissions from the oil and gas sector by 40-45 percent from 2012 levels by 2025



Key Elements of the BMP Commitment Framework

BMP Commitment Framework

- Partner companies join the Program through a commitment to address one or more emission sources by implementing designated BMPs across their operations by a future date
- Intended to spur near-term, widespread implementation of methane mitigation activities across the oil and natural gas value chain
- Commitments for the distribution sector include the following sources:
 - Metering and Regulating (M&R) Stations/City Gates*
 - Distribution Pipeline Blowdowns
 - Mains – Cast Iron and Unprotected Steel
 - Services – Cast Iron and Unprotected Steel
 - Excavation Damages

**At this time, EPA is not finalizing BMP commitment details for this source*

Commit to Action

Join the Program

Sign Partnership Agreement with EPA covering source commitments, timing and agreement to submit data to Program

Announce Commitments

Company and commitments listed on Methane Challenge program website

Submit Implementation Plan

Within 6 months of joining the program, submit implementation plan to EPA with key milestones

Annual Reporting

Submit voluntary supplementary data via Methane Challenge reporting mechanism (covered sources only)

Annual Progress Tracking

Source-specific data (activity and emissions) rolled up at company level and provided on Program website

Natural Gas STAR Methane Challenge Program: Partnership Agreement for Best Management Practice (BMP) Commitment

The Natural Gas STAR Methane Challenge Program is a flexible, voluntary partnership between the U.S. Environmental Protection Agency (EPA) and oil and natural gas companies. This voluntary Program allows the EPA to collaborate with Partners to promote and track ambitious, transparent commitments to voluntarily reduce methane emissions beyond regulatory requirements and to recognize Partners for their progress. By signing this agreement, _____ (company name) agrees to join the U.S. EPA to reduce methane emissions through a Best Management Practice (BMP) Commitment. The BMP Commitment entails a Partner commitment to company-wide implementation of BMPs to reduce methane emissions from key sources by a future target date. Partners commit to at least one emission source and specify a target year of completion (maximum of five [5] years from commitment start date).

Partner's Best Management Practice Commitment: Please specify participating sources, start date, and target achievement year in the table below, check all that apply.

| Source | Start Date | Achievement Year |
|--|------------|------------------|
| Onshore Production | | |
| <input type="checkbox"/> Pneumatic Controllers | | |
| <input type="checkbox"/> Equipment Leaks/Fugitive Emissions | | |
| <input type="checkbox"/> Liquids Unloading | | |
| <input type="checkbox"/> Pneumatic Pumps | | |
| <input type="checkbox"/> Fixed Roof, Atmospheric Pressure Hydrocarbon Liquid Storage Tanks | | |
| Gathering and Boosting | | |
| <input type="checkbox"/> Pneumatic Controllers | | |
| <input type="checkbox"/> Equipment Leaks/Fugitive Emissions | | |
| <input type="checkbox"/> Pneumatic Pumps | | |
| <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"/> Equipment Leaks/Fugitive Emissions | | |
| <input type="checkbox"/> Transmission Pipeline Blowdowns between Compressor Stations | | |
| <input type="checkbox"/> Pneumatic Controllers | | |
| NG Distribution | | |
| <input type="checkbox"/> M&R Stations/City Gates | | |
| <input type="checkbox"/> Main - Cast Iron and Unprotected Steel (Commitment Rate: _____) | | |
| <input type="checkbox"/> Services - Cast Iron and Unprotected Steel | | |
| <input type="checkbox"/> Distribution Pipeline Blowdowns (Commitment Rate: _____) | | |
| <input type="checkbox"/> Excavation Damages | | |

[Download the BMP Commitment Option Partnership Agreement from the Program website.](#)

Annual Reporting



- EPA will use GHGRP Subpart W data, plus non-confidential supplemental data provided by partners, to track progress in meeting source-specific commitments under the Methane Challenge Program
 - Data will be reported at the facility level, in line with Subpart W facility definitions
- EPA aims to minimize the reporting burden so Partner companies can focus resources on the implementation of methane-reducing activities
 - Plan to use streamlined data collection process in eGGRT for reporting
- Partner companies will start collecting data on designated Start Date (within six months of joining program)
 - Full calendar year data will be most valuable to tracking Program process
 - EPA will evaluate Partners reporting partial year data the first year in Program

Continuous Improvement is a Principal Goal

- Partners are encouraged to expand their Program commitments at any time
 - In particular, Partners that join for a single emission source will be strongly encouraged to commit to additional source(s) over time
- To encourage innovation, the EPA will consider adopting new sources and additional BMPs
 - Partner companies can propose additional sources of interest and/or new BMPs for inclusion in the Program
 - The EPA will review information presented by Partners, as well as relevant publicly available information, and make decisions on a case-by-case basis
- For innovative mitigation actions that Partners would like to pilot before they are widely commercially available or adopted, the EPA will work with Partners to assess including them as Program BMPs

Overview: Distribution Segment Supplementary Technical Information

Emissions Sources for the Distribution Segment

| Emission Source | Description |
|--|--|
| Distribution Pipeline Blowdowns | Release of gas from a pipeline or section of pipeline that causes a reduction in system pressure or a complete depressurization |
| Mains – Cast Iron and Unprotected Steel | Natural gas pipelines that serve as a common source of gas supply for more than one service line |
| Services – Cast Iron and Unprotected Steel | A service line is a distribution line that transports gas from a common source of supply to (1) a customer meter or the connection to a customer’s piping, whichever is farther downstream, or (2) the connection to a customer’s piping if there is no customer meter |
| Excavation Damages | May include damage to the external coating of the pipe, or dents, scrapes, cuts, or punctures directly into the pipeline itself; covers both distribution mains and services |

Distribution Pipeline Blowdowns

Mitigation Options

- Route gas to a compressor or capture system for beneficial use
- Route gas to a flare
- Route gas to a low-pressure system
 - Use existing piping connections between high- and low-pressure systems
 - Temporarily reset or bypass pressure regulators to reduce system pressure prior to maintenance
 - Install temporary connections between high- and low-pressure systems
- Utilize hot tapping
 - Makes a new pipeline connection while the pipeline remains in service, flowing natural gas under pressure, to avoid the need to blow down gas

Partners commit to maximize blowdown gas recovery and/or emission reductions through utilization of one or more of these options to reduce methane emissions from non-emergency blowdowns of pipelines operating greater than 60 psi by at least 50% from total potential emissions each year.

Mains – Cast Iron and Unprotected Steel

Mitigation Options

- Replace cast iron mains with plastic or cathodically protected steel and replace or cathodically protect unprotected steel mains
- Rehabilitate cast iron and unprotected steel pipes with plastic pipe inserts, also referred to as sliplining or u-liners, or cured-in-place liners

Partners commit to replace or rehabilitate cast iron and unprotected steel mains at the following minimum annual rates.

| Tier | Inventory of Cast Iron and Unprotected Steel Mains | % Minimum Annual Replacement/Repair |
|--------|--|-------------------------------------|
| Tier 1 | <500 miles | 6.5% |
| Tier 2 | 500-1,000 miles | 5% |
| Tier 3 | 1,001 – 1,500 miles | 3% |
| Tier 4 | 1,501 miles – 3,000 miles | 2% |
| Tier 5 | > 3,000 miles | 1.5% |

Services – Cast Iron and Unprotected Steel

Mitigation Options

- Replace unprotected steel and cast iron services with copper, plastic, or protected steel
- Rehabilitate cast iron and unprotected steel services with plastic pipe inserts or liners

At a minimum, partners commit to replace or rehabilitate cast iron and unprotected steel services when the main is replaced or rehabilitated.

Due to the linkage with mains, this source is not eligible for a stand-alone commitment, but can be selected as an optional addition for Partners that select the “Mains – Cast Iron and Unprotected Steel” source category.

Excavation Damages

Mitigation Options

- Conduct incident analyses to inform process improvements and reduce excavation damages
 - For example, by identifying whether excavation, locating, or One-Call practices were not sufficient
- Undertake targeted programs to reduce excavation damages and/or shorten time to shut-in when damages do occur
 - Patrolling systems when construction activity is higher
 - Excavator education programs (811, call before you dig)
 - Identifying and implementing steps to minimize repeat offenders
 - Stand-by efforts

Partner companies' collection and reporting of data on all excavation damages is a significant part of this commitment. Partners will use the collected data to set a company-specific goal for reducing excavation damages and/or methane emissions from excavation damages.

Reporting

- For each emission source, the Supplementary Technical Information document includes
 - Specific emission sources
 - Quantification methods
 - Data elements to be collected at facility level
 - Indication of whether the data are collected through GHGRP

| Emission Source | Quantification Method ²⁴ | Data Elements to be Collected at Facility-Level | Collected through GHGRP |
|---|---|--|-------------------------|
| Distribution services - cast iron - gas service | Subpart W unprotected steel services EF ²⁵ | Total number of cast iron services | |
| | | Annual CH ₄ emissions (mt CH ₄) | |
| Distribution services - copper - gas service | Subpart W copper services EF | Total number of copper services | X |
| | | Annual CH ₄ emissions (mt CH ₄) | X |
| Distribution services - plastic - gas service | Subpart W plastic services EF | Total number of plastic services | X |
| | | Annual CH ₄ emissions (mt CH ₄) | X |
| Distribution services - protected steel - gas service | Subpart W protected steel services EF | Total number of protected steel services | X |
| | | Annual CH ₄ emissions (mt CH ₄) | X |
| Distribution services - unprotected steel - gas service | Subpart W unprotected steel services EF | Total number of unprotected steel services | X |
| | | Annual CH ₄ emissions (mt CH ₄) | X |

Next Steps

Next Steps – Sign up today!

- EPA will officially launch the Methane Challenge Program with founding Partners at the Global Methane Forum (GMF) on March 30, 2016 at 10:00AM EDT in Washington, DC
- The Program will accept new Partners at any time
- Interested companies are encouraged to contact Carey Bylin at (202) 343-9669 or by email at bylin.carey@epa.gov

Join Us at the GMF

A promotional banner for the Global Methane Forum. The background is a stylized blue silhouette of the Washington, DC skyline, featuring the Washington Monument, the US Capitol, and the Lincoln Memorial. The text is in white and blue. On the left is the Global Methane Initiative logo, which consists of a stylized flame or sunburst icon. On the right is the Climate & Clean Air Coalition logo, which features a globe icon. The main title 'Global Methane Forum' is in large, bold, blue letters. Below it, the dates and location '28-30 March 2016 • Washington, DC, USA' are written in white.

Global Methane Initiative

Global Methane Forum

CLIMATE & CLEAN AIR COALITION
TO REDUCE SHORT-LIVED CLIMATE POLLUTANTS

28-30 March 2016 • Washington, DC, USA

globalmethane.org/forum

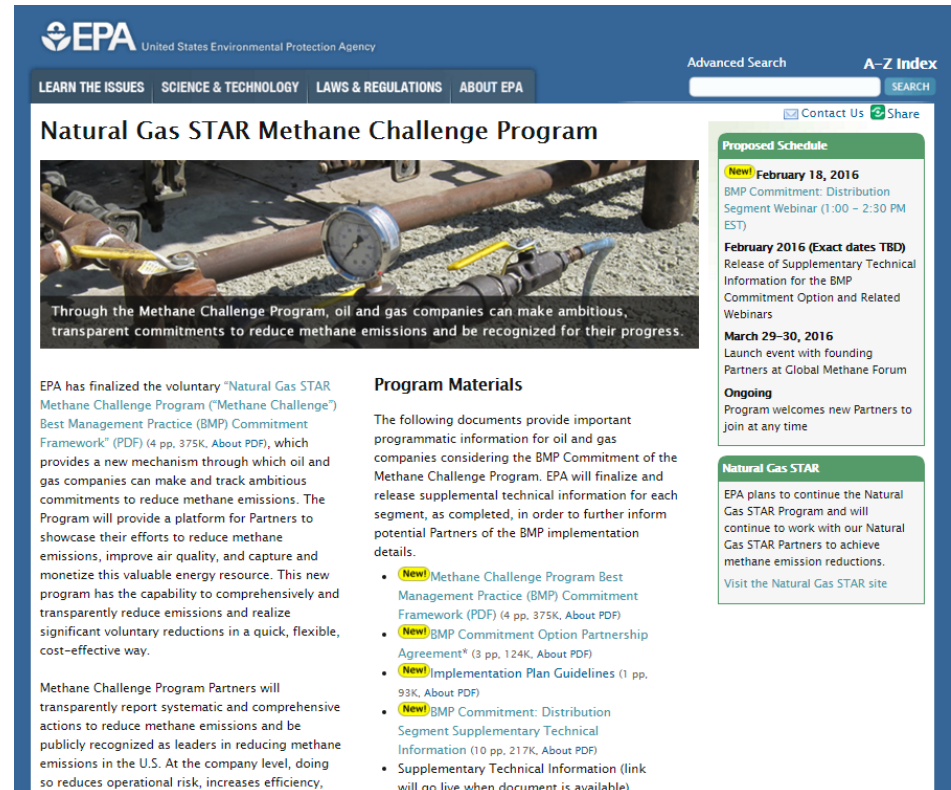
Partner Recognition and Benefits

- Program provides companies with the opportunity to showcase systematic and comprehensive actions to reduce methane emissions
- Implementing BMPs and mitigation activities reduces operational risk, increases efficiency and demonstrates company concern for the environment
- Partners will be recognized as leaders in demonstrating commitments to action and transparency to minimize methane emissions in the United States

Questions

Wrap Up

- Information about the Methane Challenge Program is available on the EPA website at www.epa.gov/gasstar/methanechallenge
- This webinar presentation will be posted to the website



The screenshot shows the EPA website page for the Natural Gas STAR Methane Challenge Program. The page features a header with the EPA logo and navigation tabs for 'LEARN THE ISSUES', 'SCIENCE & TECHNOLOGY', 'LAWS & REGULATIONS', and 'ABOUT EPA'. A search bar and 'A-Z Index' are also present. The main content area includes a title 'Natural Gas STAR Methane Challenge Program' and a photograph of industrial equipment with a pressure gauge. Below the photo is a quote: 'Through the Methane Challenge Program, oil and gas companies can make ambitious, transparent commitments to reduce methane emissions and be recognized for their progress.' The page is divided into three columns: a main text column, a 'Program Materials' column with a list of documents, and a 'Proposed Schedule' column with a timeline of events.

EPA United States Environmental Protection Agency

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Natural Gas STAR Methane Challenge Program

Through the Methane Challenge Program, oil and gas companies can make ambitious, transparent commitments to reduce methane emissions and be recognized for their progress.

EPA has finalized the voluntary "Natural Gas STAR Methane Challenge Program ("Methane Challenge") Best Management Practice (BMP) Commitment Framework" (PDF) (4 pp, 375K, About PDF), which provides a new mechanism through which oil and gas companies can make and track ambitious commitments to reduce methane emissions. The Program will provide a platform for Partners to showcase their efforts to reduce methane emissions, improve air quality, and capture and monetize this valuable energy resource. This new program has the capability to comprehensively and transparently reduce emissions and realize significant voluntary reductions in a quick, flexible, cost-effective way.

Methane Challenge Program Partners will transparently report systematic and comprehensive actions to reduce methane emissions and be publicly recognized as leaders in reducing methane emissions in the U.S. At the company level, doing so reduces operational risk, increases efficiency,

Program Materials

The following documents provide important programmatic information for oil and gas companies considering the BMP Commitment of the Methane Challenge Program. EPA will finalize and release supplemental technical information for each segment, as completed, in order to further inform potential Partners of the BMP implementation details.

- **New!** Methane Challenge Program Best Management Practice (BMP) Commitment Framework (PDF) (4 pp, 375K, About PDF)
- **New!** BMP Commitment Option Partnership Agreement* (3 pp, 124K, About PDF)
- **New!** Implementation Plan Guidelines (1 pp, 93K, About PDF)
- **New!** BMP Commitment: Distribution Segment Supplementary Technical Information (10 pp, 217K, About PDF)
- Supplementary Technical Information (link will go live when document is available)

Proposed Schedule

- **New!** **February 18, 2016**
BMP Commitment: Distribution Segment Webinar (1:00 - 2:30 PM EST)
- **February 2016 (Exact dates TBD)**
Release of Supplementary Technical Information for the BMP Commitment Option and Related Webinars
- **March 29-30, 2016**
Launch event with founding Partners at Global Methane Forum

Ongoing

Program welcomes new Partners to join at any time

Natural Gas STAR

EPA plans to continue the Natural Gas STAR Program and will continue to work with our Natural Gas STAR Partners to achieve methane emission reductions.

[Visit the Natural Gas STAR site](#)