

U.S. EPA Natural Gas STAR

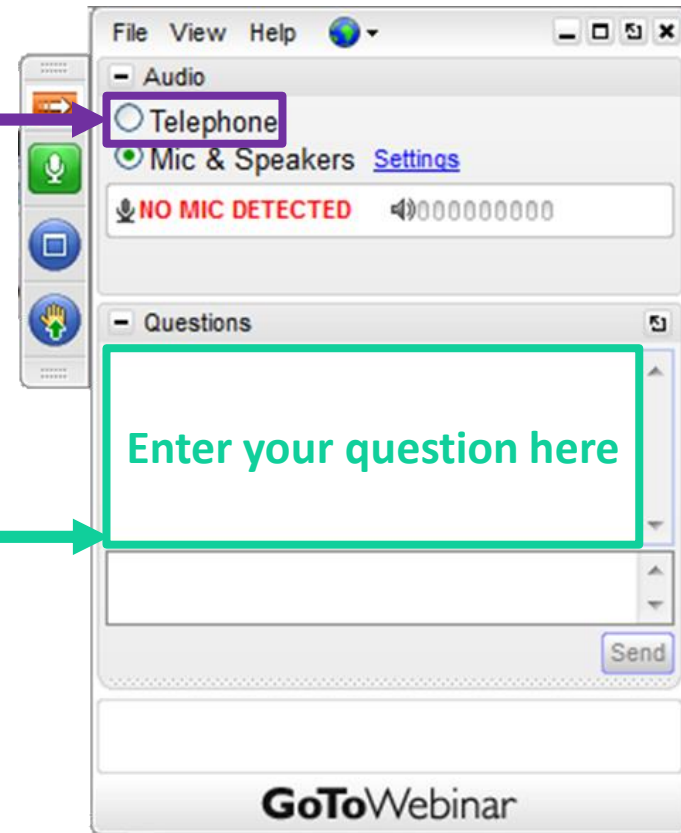
Methane Challenge Program

Onshore Production, Gathering and
Boosting, and Processing Sector Webinar
July 30, 2015



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



Welcome

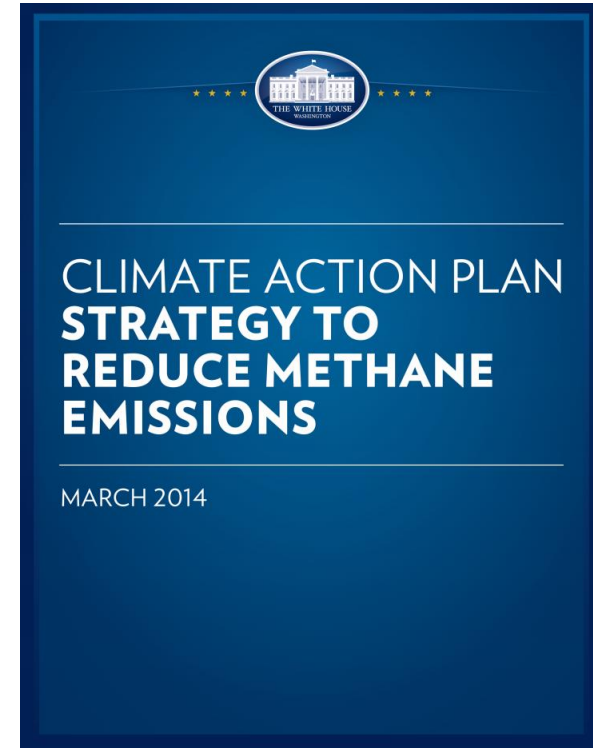
- Agenda for Today's Webinar

- Background Introduction to the Proposed Methane Challenge Program
- Proposed Program Structure and Commitment Options
- Tracking Progress and Recognizing Partners
- Sector-Specific Sources and Best Management Practices (BMPs)
- Next Steps
- Questions and Wrap Up

Background Introduction to the Proposed Methane Challenge Program

Background

- **March 2014** – White House releases the *Strategy to Reduce Methane Emissions*
 - Outlined regulatory and voluntary actions in the oil and gas sector
- **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
 - Included series of regulatory and voluntary steps EPA and other federal agencies are pursuing a to put us on a path toward the 2025 goal
- **July 2015** – EPA released Methane Challenge proposal to solicit feedback before finalizing Program in Fall



Interactions with Regulatory Agencies and Voluntary Steps to Reduce Methane Emissions

- Proposed Methane Challenge Program would create a new mechanism through which oil and gas companies can make and track ambitious voluntary commitments to reduce methane emissions
- The Program would complement regulatory actions, providing incentives and opportunities for companies to undertake and document ambitious voluntary methane emission reductions, principally from existing methane emissions

Relationship to Natural Gas STAR and Previously Proposed Gas STAR Gold

- **Methane Challenge expands Natural Gas STAR**
 - Under Natural Gas STAR, companies make general commitments and progress is tracked at program level
 - Specific, ambitious commitments
 - Transparent reporting through Subpart W of the Greenhouse Gas Reporting Program (with supplemental, voluntary reporting)
 - Company-level recognition of commitments and progress
- **Methane Challenge replaces the facility-based approach of the Gas STAR Gold proposal**
 - 2014 Gas STAR Gold proposal outlined a certification-type program for facilities
 - Stakeholder feedback emphasized need for greater flexibility
 - Methane Challenge Program seeks to achieve a balance of ambitious voluntary commitments with appropriate flexibility

Methane Challenge Program Goals

1. Encourage and support ambitious industry commitments to significantly reduce methane emissions
2. Offer flexible mechanisms to achieve stated commitments
3. Promote innovative approaches to emissions measurement, monitoring and reduction technologies and practices
4. Provide accountability and transparency for making and achieving commitments through robust annual data reporting that utilizes EPA's Greenhouse Gas Reporting Program (GHGRP) to the maximum extent possible
5. Recognize progress of companies that have been proactive in reducing methane emissions
6. Recognize improved environmental performance through quantitative assessment of reductions in emissions

Proposed Program Structure and Commitment Options

Proposed Methane Challenge Program Structure

- **Company commitments should:**
 - Be ambitious and achieve meaningful methane reductions across company operations;
 - Be transparent with the ability to track and account for progress; and
 - Demonstrate continuous improvement over time
- **To enhance flexibility, propose to offer two commitment options:**
 - Best Management Practice (BMP) Commitment
 - One Future Emissions Intensity Commitment
- **Companies can select the option that best fits with their capabilities and corporate priorities to reduce methane emissions**
- **Program would cover onshore oil production and whole value chain from onshore production through distribution of natural gas**

Best Management Practice (BMP) Commitment Option

- **Commitment:** Company-wide implementation of best management practices (BMPs) to reduce methane emissions from key sources by a future target date
 - Partner companies would commit to at least one emission source
 - Target date to be selected by the Partner company (maximum of 5 years)
 - Proposed commitment level: Division or Business Unit Level, defined as a separately managed division or unit of an enterprise with strategic and/or operational objectives that may be distinct from the parent unit and other divisions or business units. A division or business unit typically targets a specific market or business or operational concern, which requires a production or management specialty and approach.
- **Scope:** EPA has identified key emission sources based on their contribution to national emissions and stakeholder interest
 - Program will outline multiple BMPs, as appropriate, to maximize flexibility in achieving commitments; companies select BMPs suited to their operations
 - EPA to consider adding new, innovative mitigation activities to BMPs

One Future Emissions Intensity Commitment Option

- **Commitment:** Companies commit to sector-specific intensity targets
 - Intensity targets represent emissions per volume produced or volume of throughput
 - Targets add up to a 1% or less “leakage rate” along the value chain by 2025
- **Scope:** Companies selecting this option would engage directly with One Future
 - Determine the organizational structure or level at which commitments will be made
 - Establish specific company-wide commitments
 - Companies can choose mix of mitigation options to achieve targets



Key Steps for Committing to Action Under the Methane Challenge Program

Join the Program

Announce Commitments

Submit Implementation Plan

BMP Commitment

Sign MOU with EPA covering source commitments, timing and agreement to submit data to Methane Challenge program

Company and commitments listed on Methane Challenge program website

Submit implementation plan to EPA, with key milestones, six (6) months after joining program

One Future (OF) Commitment

Sign MOU with OF covering commitments and timing; sign MOU with EPA agreeing to submit data to Methane Challenge Program

Company listed on Methane Challenge website with link to commitments, as listed on OF website

Submit implementation plan to OF and EPA, with key milestones, six (6) months after joining program

Key Steps for Reporting and Recognizing Progress

Establish Baseline

Annual Reporting

Annual Progress Tracking

Data Transparency

BMP Commitment

Not applicable

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

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

One Future Commitment

2012 supplemental data provided to Methane Challenge reporting mechanism to establish baseline (per EPA-specified data collection methodologies)

Submit voluntary supplementary data via Methane Challenge reporting mechanism

Company listing on Methane Challenge website links to company emissions intensity progress on One Future website

EPA envisions publicly releasing data voluntarily submitted to the Methane Challenge Program. In addition, EPA would publish data submitted to the GHGRP as part of reporting under 40 CFR Part 98 that has not been determined to be confidential business information per GHGRP rulemakings.



Other Potential Commitment Options

- EPA has also heard some interest in offering a third commitment option: the Emission Reduction (ER) Commitment
 - Commitment would be made to reduce methane emissions by a certain percentage from an agreed company-wide emissions baseline by a future date (to be determined by the company)
 - Companies would select the mix of sources they will address
- EPA is currently not offering this option because of significant implementation challenges
- EPA welcomes feedback from stakeholders
 - How to address the implementation challenges
 - Level of industry support/interest in signing up to ER commitment

Tracking Progress and Recognizing Partners

Transparency is a Principal Goal



- Partner companies would report on mitigation actions that contribute to their commitments through a public platform managed by EPA
- EPA aims to minimize the reporting burden, to the extent possible, such that partner companies can focus time and resources on the implementation of methane-reducing activities



- Subpart W of the GHGRP already collects most of the information that would be relevant to tracking Program commitments at the company level
- EPA proposes to rely on GHGRP Subpart W data, plus any needed supplemental data, to track progress in meeting commitments under the Methane Challenge Program

Supplemental Data

- EPA anticipates that participating companies may need to provide some supplementary, voluntarily supplied data to comprehensively track progress against their stated commitments
 - Facilities that do not report to the GHGRP because their emissions are less than the GHGRP reporting threshold of 25,000 metric tons CO₂e
 - Sources or mitigation activities not currently reported to the GHGRP
- EPA will provide a mechanism for companies to voluntarily report data elements (the exact mechanism is under evaluation)
- EPA is considering, and seeks feedback on, whether and how to collect supplementary data that enables the Program to distinguish company actions that are driven by regulation from those that are undertaken voluntarily

Continuous Improvement is a Principal Goal

- EPA will strive to promote continuous improvement and partner companies would be encouraged to expand their commitments at any time.
- EPA is interested in potential mechanisms that would facilitate continuous improvements in the Program over time in order to address the greatest emission reduction opportunities and help to contribute to the Administration's 2025 methane reduction target
 - Program will seek to incorporate new and innovative BMPs, as well as methodologies for monitoring and measuring progress
 - EPA seeks feedback on how to encourage companies to continue expanding the scope of their commitments and/or undertake actions that result in performance that exceeds their commitments.

Partner Recognition and Benefits

- Proposed Program provides companies with the opportunity to showcase systematic and comprehensive actions to reduce methane emissions
 - Both commitment options suitable for companies at different stages of progress in implementing mitigation actions
- Implementing BMPs and mitigation activities reduces operational risk, increases efficiency and demonstrates company concern for the environment
- Partners would be recognized as leaders in demonstrating action to minimize methane emissions in the United States.
- EPA encourages feedback on potential recognition incentives
 - E.g. awards for outstanding performance in reducing emissions and/or achieving commitment goals, for example by setting aggressive timelines for completing a significant amount of mitigation actions.

Sector-Specific Sources and Best Management Practices (BMPs)

Consideration of Sources and BMPs for the BMP Commitment Option

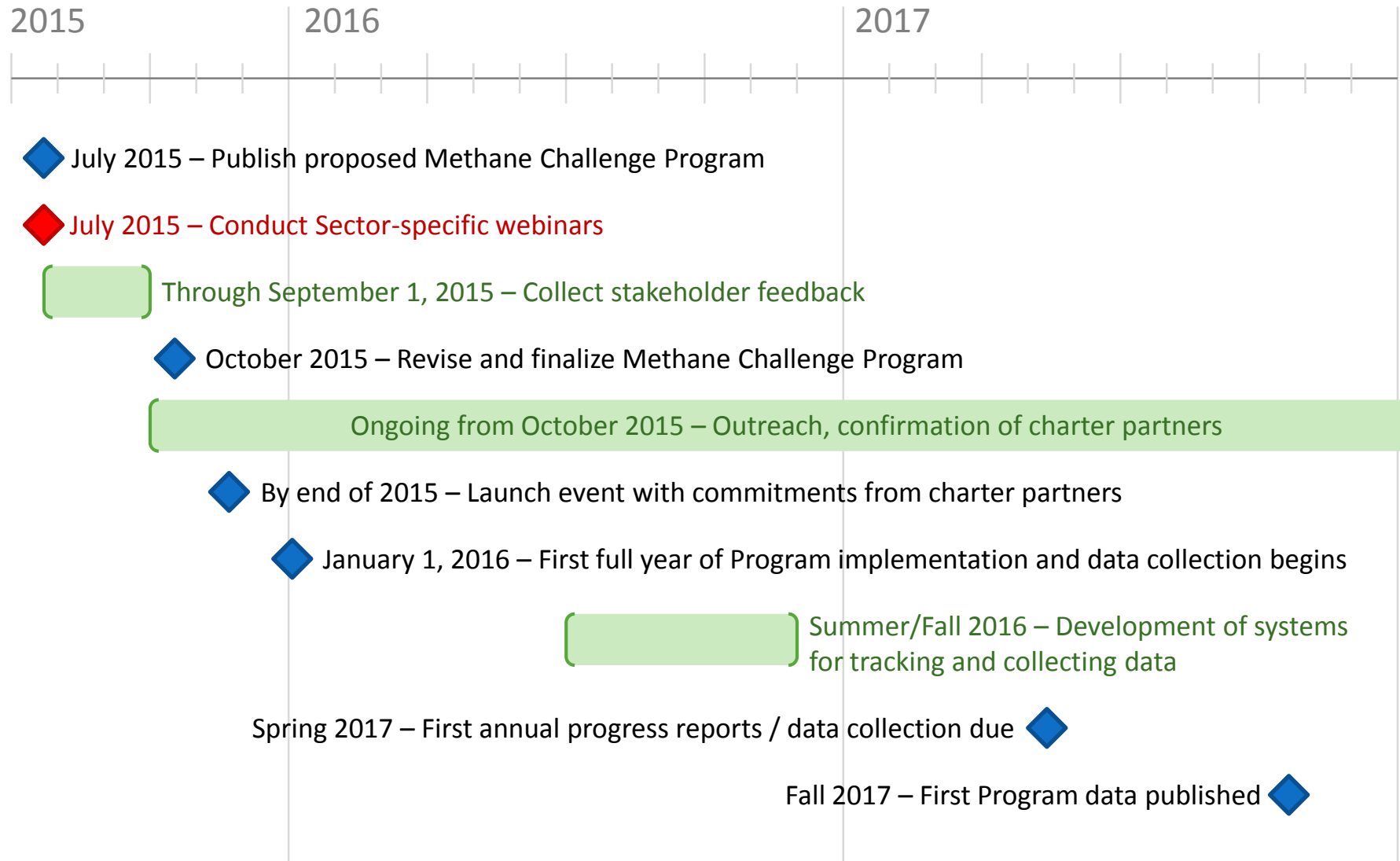
- EPA is considering multiple sources and BMPs for each sector for inclusion in the BMP commitment option
- Proposal provides high-level indication of sources and BMPs; EPA plans to continue to work through technical and implementation details with input from stakeholders
- EPA is requesting feedback on inclusion of potential exemption option to company-wide implementation, with the following conditions:
 - Exempted sources would not represent a significant portion of methane emissions from that source
 - Exempted sources would be transparently documented in annual results to provide context for company achievements

Proposed Sector-specific Sources and BMPs for Onshore Production, Gathering and Boosting, and Processing

Sectors	Sources	BMPs
Onshore Production and Gathering and Boosting	Pneumatic Controllers	For gas-driven pneumatic controllers, use low- (defined as gas bleed rate < 6 standard cubic feet/hour) or no-bleed controllers for all applications except those requiring high-bleed controllers for certain purposes, including operational requirements and safety.
	Equipment Leaks/ Fugitive Emissions	Undertake monitoring and repair activities, at specified minimum intervals, following defined parameters governing repair activities.
	Liquids Unloading	Reduce methane emissions from liquids unloading actions during which gas is vented.
	Pneumatic pumps (only CIP)	Implement no- or low-emitting pumps, such as solar or electric pumps, or route bleed gas to flare or gas capture/use.
	Hydrocarbon Storage Tanks	Route gas to capture/use (e.g., VRU) or route gas to flare.
Natural Gas (NG) Processing	Reciprocating Compressors-venting	Route rod packing vent to capture/use or route gas to flare or replace rod packing every 26,000 hours of operation or every 36 months.
	Centrifugal Compressors-venting	Route wet seal de-gassing vent to capture/use or route wet seal de-gassing to flare.

Next Steps

Anticipated Schedule (Timeline)



EPA Requests Your Feedback

- EPA encourages stakeholders to closely review the proposed Methane Challenge Program and provide feedback on any and all aspects of the proposal
- Specific feedback topics, identified in the framework, include:
 - Company interest in joining program and interest in ER commitment option
 - Incentives for companies to make commitments, including sources for which significant progress has not been made and commitments related to sources where new GHGRP Subpart W requirements are pending
 - Additions, deletions, and revisions to sources and BMPs
 - Definitions for companies and entities that will make BMP commitments
 - Appropriateness of a 5-year time limit for achieving commitments
 - Reporting requirements and value of using e-GGRT for collecting voluntary supplemental data
 - Importance of distinguishing voluntary actions from regulatory actions

Feedback and Next Steps

- You can provide feedback in two different ways:
 - Submit your feedback online at www.epa.gov/gasstar/methanechallenge/
 - Send feedback by email to methanechallenge@tetrattech.com.
- EPA encourages interested stakeholders to schedule a meeting with Carey Bylin at (202) 343-9669 or by email at bylin.carey@epa.gov
- Please provide feedback by September 1, 2015
- EPA also seeks to engage stakeholders on development of technical details of sources and proposed BMPs

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
- Feedback about the proposed program is due to EPA by September 1, 2015
- Based on feedback and consultation with companies that indicate interest in becoming charter partners, EPA will finalize program proposal in Fall 2015 with official launch by end of 2015

2015 Natural Gas STAR Annual Implementation Workshop

- November 16-18, 2015 in Pittsburgh, PA
- Online registration is **open**
- Visit the website at epa.gov/gasstar
- Potential topics include:
 - Successfully implemented mitigation technologies and practices
 - Systems and best practices for tracking, managing and reducing methane emissions
 - Methane leak detection and measurement technologies
 - Natural gas fugitive emissions, venting and flaring
 - International project opportunities
 - Cross-cutting issues such as financing projects and end-use of gas
- Exhibitor opportunities are available

This event is an opportunity to showcase methane abatement and reduction related activities and engage with experts.