



Methane Challenge Continuous Improvement

2019 Natural Gas STAR and Methane Challenge Workshop

November 5, 2019



Technology Transfer

- Both Natural Gas STAR and Methane Challenge have a core goal of technology transfer
- The programs are interested in maintaining the technical relevance and accuracy of program materials and encouraging innovative methane reduction technologies and practices
- Natural Gas STAR is working on reviewing/updating the [Technical Document library](#) to ensure information is accurate, up-to-date, and relevant (session following on Natural Gas STAR)
- EPA has also identified a number of commitment options that we would like to add to the Methane Challenge Program
- Today we'll have 5 stakeholders speak about key methane emission sources and topics in the industry

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Continuous Improvement

- The notion of “Continuous Improvement” was built into the Methane Challenge Program
- Methane Challenge finalized a process in 2018
 - Allows for partners or EPA to propose changes/updates to program
 - Partners/the public can provide feedback on proposed change
 - Process can be used for updates in either commitment option
- Updates to the program may include (but are not limited to):
 - Adding a new emission source
 - Adding a new BMP to an existing emission source
 - Revising reporting methodologies and/or data elements

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Continuous Improvement Process

Step 1	Partner submits written proposal to EPA <i>(Note: a proposal can be initiated by a program Partner or EPA)</i>
Step 2	EPA reviews proposal (using evaluation criteria) to assess completeness, relevance, feasibility, and program's capabilities
Step 3	EPA communicates results of initial review to Partner; if appropriate, EPA works with Partner to develop a Program technical document
Step 4	EPA shares draft technical document with Methane Challenge partners (and public via website); stakeholders have ~ one month to provide feedback
Step 5	EPA revises technical document as needed
Step 6	EPA implements change (as resources allow)

Learn more about the process: <https://www.epa.gov/natural-gas-star-program/methane-challenge-program-continuous-improvement-fact-sheet>

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Current Partner Commitments

	20+ Partners
	10 - 19 Partners
	1 - 9 Partners
	No Partners

Onshore Production	Gathering and Boosting	Natural Gas Processing	Transmission and Storage	Distribution
Pneumatic Controllers <i>1 Partner</i>	Pneumatic Controllers <i>2 Partners</i>	Reciprocating Compressors <i>1 Partner</i>	Reciprocating Compressors <i>6 Partners</i>	Distribution Mains <i>32 Partners</i>
Storage Tanks <i>1 Partner</i>	Storage Tanks	Centrifugal Compressors	Centrifugal Compressors <i>2 Partners</i>	Distribution Services <i>16 Partners</i>
	Reciprocating Compressors <i>4 Partners</i>		Pipeline Blowdowns <i>7 Partners</i>	Pipeline Blowdowns <i>2 Partners</i>
	Centrifugal Compressors		Pneumatic Controllers <i>3 Partner</i>	Excavation Damages <i>23 Partners</i>
<i>ONE Future Emissions Intensity Commitment</i> <i>1 Partner</i>	<i>ONE Future Emissions Intensity Commitment</i>	<i>ONE Future Emissions Intensity Commitment</i>	<i>ONE Future Emissions Intensity Commitment</i> <i>2 Partners</i>	<i>ONE Future Emissions Intensity Commitment</i> <i>2 Partners</i>

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Changes Under Development

Commitment Option	Source	Type of Change	Status
BMP	Equipment Leaks (Compressor Isolation and Blowdown Valves)	Add new emission source	Proposal under internal review
BMP	Liquids Unloading	Add new emission source	Proposal in development
BMP	Reciprocating Compressor	Add new BMP for existing source –rod-packing replacement based on monitoring leaks	Researching and evaluating
BMP	Equipment Leaks (General)	Add new emission source	Researching and evaluating
BMP/ONE Future	Renewable Natural Gas	Add mechanism for companies to report on RNG projects/interconnects	Researching and evaluating

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Potential Opportunities

- The program has identified additional updates that could be made to expand commitment options and/or update quantification methods
 - Quantification of methane reductions from excavation damages
 - Metering and regulating stations / city gates
 - Other new BMPs, emission source commitment options, etc. as proposed by Partners
- Will be prioritized when Partner interest and/or new information becomes available

Today's Session

Topic	Presentation Title	Speaker
Equipment Leaks	BMP for Equipment Leak/Fugitive Emissions at Compressor Stations: Targeting Unit Isolation and Blowdown Valve Leakage	Josh Ennis, National Fuel Gas
Liquids Unloading	Natural Gas STAR Partner Experience with Emission Reductions during Liquids Unloading	Ryan Tyree, Range Resources Corporation
Liquids Unloading	Minimizing Emissions While Manually Unloading Unconventional Shale Gas Wells: An Applied Practice – Appalachian Basin	Jeff Formica, Seneca Resources Company
Reciprocating Compressor Rod Packing	Rod-Packing Evaluation and Replacement Program	Steven Anderson & Todd Baker, DTE Energy
Renewable Natural Gas	Enhancing Transparency and Recognition of RNG Projects	Rob LaCount, M.J. Bradley & Associates

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