

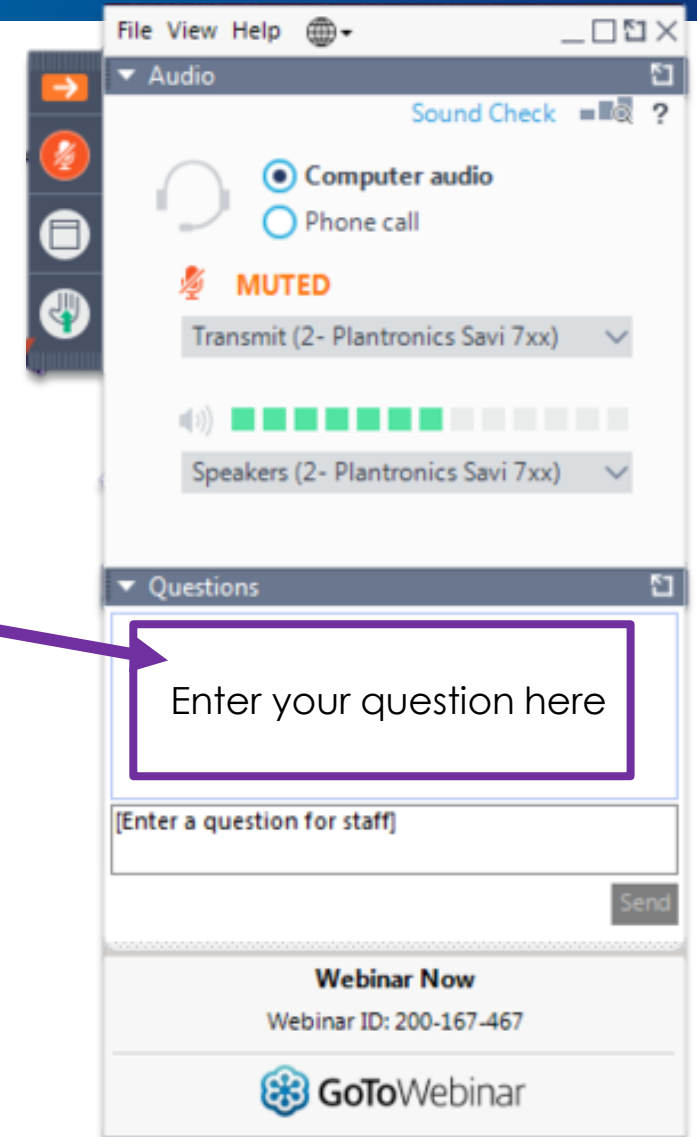


Methane Challenge 2017 BMP Reporting Results Webinar

June 26, 2019

Tips

- All participants (except speaker) are in listen-only mode
- 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 let us know using the Questions pane on the right side
- A copy of today's presentation will be available on EPA's website



Program Overview

Methane Challenge Overview

- Launched in 2016 with strong support from industry Partners
- Builds on the success of Natural Gas STAR: provides a mechanism for companies to make specific, transparent, voluntary commitments to reduce methane emissions
- Publicly recognizes natural gas company Partners as voluntary-action leaders
- Companies transparently track and report voluntary actions annually, leveraging Greenhouse Gas Reporting Program data and system
- Provides two Commitment Options for companies: “Best Management Practice” and “ONE Future”

Methane Challenge Commitment Options

- **Best Management Practice (BMP) Commitment Option:**
 - Partners commit to mitigate emissions from one or more of nine key emission sources (e.g., pneumatic controllers, tanks, compressors, pipelines), using specific technologies, practices
 - Commit to company-wide implementation of best practices within five years
 - Track and report activities annually
- **ONE Future Commitment Option**
 - Partners commit to an emissions intensity rate across their operations, separately through ONE Future organization
 - Performance-based approach: provides flexibility in achieving their goals
 - Methane Challenge ONE Future Partners report methane emission and reduction data across operations
 - EPA will collect and publish data annually

Methane Challenge Partners, by Segment

| Industry Segment | BMP MC Partners | ONE Future MC Partners |
|--------------------------|--------------------|---------------------------|
| Production | 1 | 1 |
| Gathering and Boosting | 4 | - |
| Processing | 1 | - |
| Transmission and Storage | 13 | 2 |
| Distribution | 49 | 2 |
| TOTAL | 60 | 5 |

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> |
| ONE Future Emissions Intensity Commitment <i>1 Partner</i> | ONE Future Emissions Intensity Commitment | ONE Future Emissions Intensity Commitment | ONE Future Emissions Intensity Commitment <i>2 Partners</i> | ONE Future Emissions Intensity Commitment <i>2 Partners</i> |

Reporting - 2018

2018 Reporting Overview

- Partners report Methane Challenge data through specially-created voluntary module of GHGRP e-GGRT
- 46 BMP Partners reported 2017 data
- Reporters primarily in Transmission and Distribution segments, plus one in Gathering & Boosting
- 10 new Partners will begin reporting in 2019/2020
- ONE Future Partners will begin reporting 2017 & 2018 data in summer 2019

2017 BMP Reporting Summary Results

| Commitment Options | Number of Partners Reported | Number of Facilities Covered | Estimated Voluntary Emission Reductions (metric tons CO ₂ equivalent) |
|---------------------------------|-----------------------------|------------------------------|---|
| Pneumatic Controllers | 1 | 12 | 0 |
| Tanks | 0 | 0 | 0 |
| Reciprocating Compressors | 5 | 23 | 7,825 |
| Centrifugal Compressors | 0 | 0 | 0 |
| Transmission Pipeline Blowdowns | 4 | 4 | 637,600 |
| Distribution Mains | 28 | 61 | 231,675 |
| Distribution Services | 13 | 32 | 78,275 |
| Distribution Pipeline Blowdowns | 1 | 2 | 100 |
| Excavation Damages | 19 | 39 | N/A |
| Total | 46 | 127 | 955,475 |

2017 Distribution Mains Progress

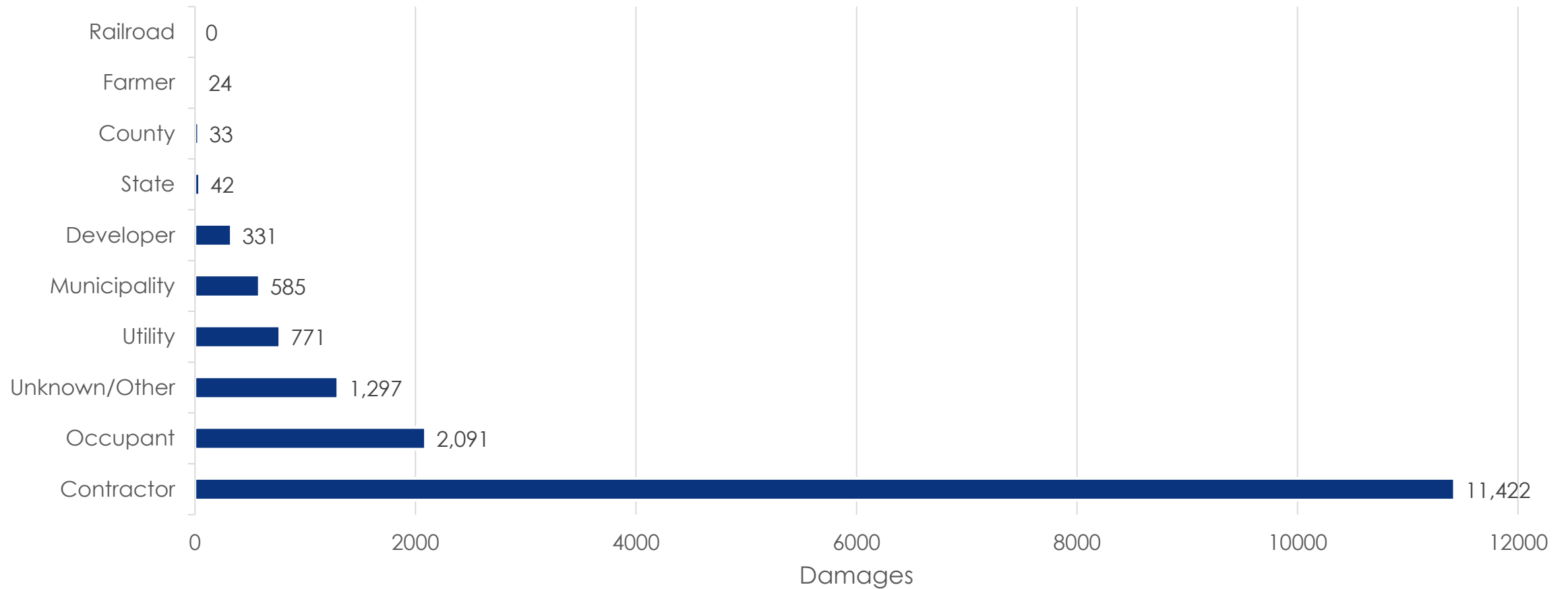
- Through this commitment option, Partners commit to replace or rehabilitate cast iron and unprotected steel mains at an annual replacement rate that they specify
 - 28 companies reported on their Distribution Mains commitment for 2017
 - **26 met**, or exceeded, their commitment in 2017
 - On average, partners exceeded their commitment by **over 180%**
 - **Over 1,400 miles of cast iron** replaced
 - **Over 2,000 miles of unprotected steel** replaced

2017 Excavation Damages Progress

- Through this commitment option, Partners commit to annually report all Methane Challenge Excavation Damages data elements (within 5 years)
 - 19 Partners reported on Excavation Damages commitment in 2017
 - **12 met** their commitment in 2017
- Currently, no method exists to quantify emission reductions from prevention activities (e.g., public awareness raising programs)
- Methane Challenge BMP Partners commit to provide detailed annual data characterizing damages: who was responsible? What was the root cause?
- Creates unique, company-specific dataset to inform approaches to reducing excavation damages

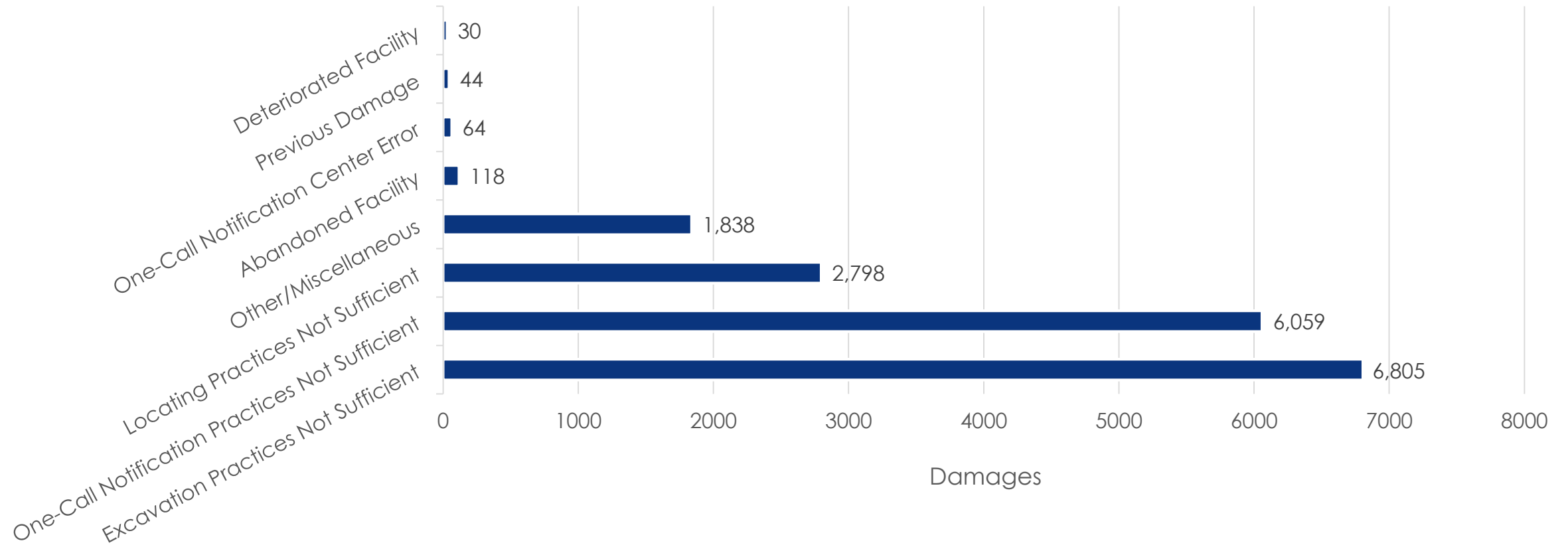
2017 Excavation Damages Details

Damages Caused By



2017 Excavation Damages Details

Damage Root Causes



Publication of Methane Challenge Results

Methane Challenge Partner Profile Pages

- Methane Challenge has developed individual “Partner Profile” web pages for all Partners that include:
 - Visualization of Partners’ progress towards BMP commitments
 - The full Methane Challenge dataset submitted to EPA
 - Links to company-specific info such as Implementation Plan
 - Optional “Historical Action Fact Sheet” which provides opportunity for companies to showcase voluntary actions before joining the program

2017 BMP Reporting Partners

Ameren Illinois
Atmos Energy
Avista Utilities
CenterPoint Energy
Columbia Gas of Maryland, Inc.
Columbia Gas of Massachusetts, Inc.
Columbia Gas of Ohio, Inc.
Columbia Gas of Pennsylvania, Inc.
Columbia Gas of Virginia, Inc.
Consolidated Edison Company of New York
Consumers Energy
Dominion Energy Transmission, Inc.
Dominion Energy Utah, Wyoming, and Idaho
Dominion Energy West Virginia and Dominion Energy Ohio
DTE Energy
Duke Energy
Eversource
Exelon Utilities
Kern River Gas Transmission Company
Knoxville Utilities Board
MDU Resources Group, Inc.
Metropolitan Utilities District of Omaha
MidAmerican Energy Company

National Grid
NiSource, Inc.
Northern Indiana Public Service Company
Northern Natural Gas
NW Natural
ONE Gas, Inc
Orange and Rockland Utilities, Inc.
Pacific Gas & Electric Company
Peoples Gas Light and Coke Company
Peoples Natural Gas, LLC
Piedmont Natural Gas Company, Inc.
Public Service Electric and Gas Company (PSE&G)
San Diego Gas and Electric
Southern California Gas Company
South Jersey Gas
Southwest Gas Corporation
Spire
Summit Utilities, Inc.
TECO Peoples Gas
UGI Utilities, Inc.
Vectren
Vermont Gas
Washington Gas



Natural Gas STAR Program

CONTACT US

SHARE



Natural Gas STAR Home

Methane Challenge Program

Partners

Partner Commitments

Commitment Options

Join

Implement

Report

Continuous Improvement

Natural Gas STAR Program

Outreach and Events

Industry Overview

Methane Challenge Partners

Below is a list of Methane Challenge Partners, sortable by column. Enter a keyword into the Search box on the right to find Partners. Clicking on a Partner's name will direct you to that Partner's Methane Challenge Partner Profile webpage.

Program Partners

Show 10 entries

Copy

CSV

PDF

Search:

| Company | Joined | Segment(s) |
|---------------------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Ameren Illinois | 2016 | Distribution |
| Atmos Energy | 2016 | Distribution |

Accessing Partner Profile Pages

Partner Profile Page

Natural Gas STAR Program

Natural Gas STAR Home

Methane Challenge
Program

Natural Gas STAR Program

Outreach and Events

Industry Overview

Recommended
Technologies

Technical Presentations

Videos

International Activities

Example Methane Challenge Partner Profile

Natural Gas STAR Partner Since 1996 | Methane Challenge Partner Since 2016

[Example Partner](#) **EXIT** has committed to apply best management practices (BMPs) across its operations to mitigate methane emissions from the emission sources listed below.

Learn more about Example Partner's progress towards meeting its commitments to implement methane-reducing technologies and practices related to these emission sources:

- [Reciprocating Compressors - Rod Packing Vent \(Transmission & Storage\)](#)
- [Transmission Pipeline Blowdowns between Compressor Stations \(Transmission & Storage\)](#)
- [Mains - Cast Iron & Unprotected Steel \(Distribution\)](#)
- [Excavation Damages \(Distribution\)](#)

At the bottom of this page, you will also find the [cumulative methane reductions](#) that Example Partner has achieved in the program.

Background Information: Information submitted by Example Partner, including its full dataset, can be found on its [document page](#). This page includes the following documents:

- Methane Challenge Implementation Plan
- Historical Actions Fact Sheet (*this fact sheet was developed by the company and represents the company's historic efforts to voluntarily reduce methane emissions before joining the Methane Challenge Program*)
- Methane Challenge reported data

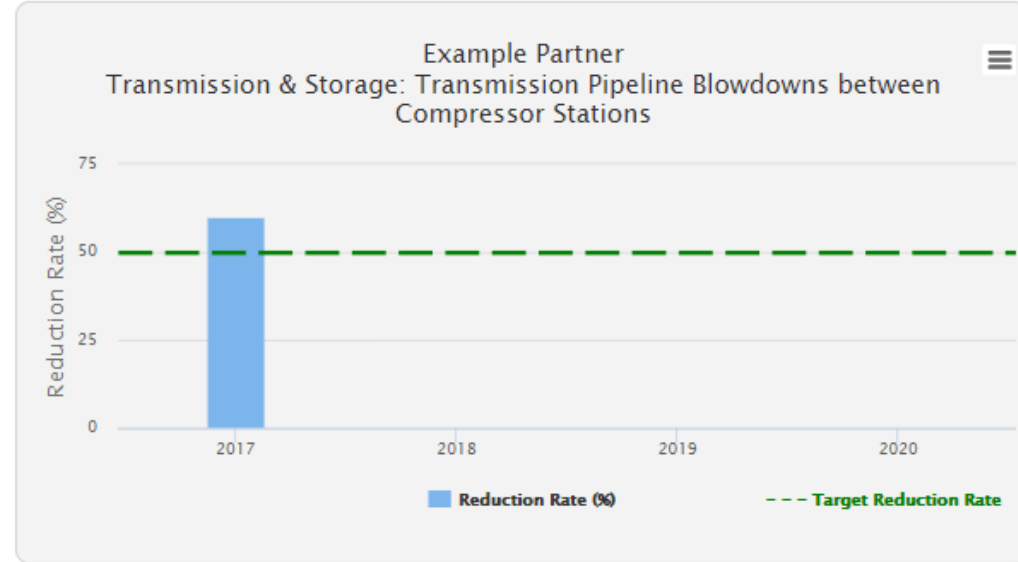
Partner Profile Page

continued

Transmission & Storage

Transmission Pipeline Blowdowns between Compressor Stations

[Learn more](#) about emissions from blowdowns, available options to mitigate emissions, and what the BMP Commitment for blowdowns entails.



| Commitment Details | Company Selection |
|--------------------------------|------------------------|
| Segment: | Transmission & Storage |
| Target Year: | 2020 |
| Target Reduction Rate: | 50% |
| Current Reduction Rate: | 60.20% |

Graph shows: The percent of potential emissions from planned blowdowns that Example Partner reduced through implementation of best management practices each year. The green line indicates its target annual rate (50%). Bars above the line indicate that Example Partner achieved, and exceeded, its goal for the year. Example Partner has implemented this commitment by routing gas to beneficial use and low-pressure systems, and by utilizing hot taps.

Cumulative Reductions

Since joining the Methane Challenge program, Example Partner has achieved the following methane emissions reductions, which are also expressed in terms of carbon dioxide equivalents and the value of the amount of natural gas saved:

- **Methane emissions reductions:** 10,000 metric tons
- **Reductions in carbon dioxide equivalents:** 250,000 metric tons
- **Natural gas savings:** \$1,562,500*

*Natural gas savings assumes a natural gas price of \$3.00 per thousand cubic feet, based on the average of daily Henry Hub Natural Gas Spot Prices in 2017, rounded to the nearest dollar

[↑ Top of Page](#)

| | A | B | C | D | E | F | G | H | I | J | K | |
|----|-----------|-----------|-----------|----------|-----------|---------|---------|---------|---------|---------|---------|---|
| 1 | REPORTING | PARTNER_ | FACILITY_ | MCPARTNI | MCFACILIT | EXDAMAG | EXDAMAG | EXDAMAG | EXDAMAG | EXDAMAG | EXDAMAG | E |
| 2 | 2017 | Example P | Example F | MC999 | MC999001 | 2304 | 2.54 | 2304 | 2304 | 584 | | |
| 3 | 2017 | Example P | Example F | MC999 | MC999002 | 1634 | 1.23 | 1634 | 1634 | 130 | | |
| 4 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | |

Data Downloads

Data Dictionary

| | A | B | C | D | E | F |
|----|--------------------|------------------------------|---------------------|---|-----------|---|
| | Data Export Tab | Data Export Column Name | Reporting Form Tab | Reporting Form Data Element | Data Type | Data Units |
| 1 | Excavation_Damages | REPORTING_YEAR | 'Facility Info' | Methane Challenge Reporting Year -- year during which reported activities/emissions/reductions occurred | Integer | YYYY |
| 2 | Excavation_Damages | PARTNER_NAME | 'Facility Info' | Name of partner that reported | Character | N/A |
| 3 | Excavation_Damages | FACILITY_NAME | 'Facility Info' | Name of Methane Challenge facility the data were reported for. See the BMP Technical Document for more information on how Methane Challenge defines facilities. | Character | N/A |
| 4 | Excavation_Damages | MCPARTNER_ID | 'Facility Info' | Unique ID for a given Methane Challenge partner; assigned by e-GGRT. | Character | 'MC' followed by a three digit ID code for the partner (e.g., MC999) |
| 5 | Excavation_Damages | MCFACILITY_ID | 'Facility Info' | Unique ID for a given Methane Challenge partner's facility; assigned by e-GGRT. Each partner facility has its own ID. | Character | 'MC' followed by the partner's three digit ID code plus a three digit ID code for the facility (e.g., MC999001) |
| 6 | Excavation_Damages | EXDAMAGES_TOTALDAMAGES | 'Dist - Excavation' | Excavation damages during reporting year: Total number of excavation damages | Integer | Count of damages |
| 7 | Excavation_Damages | EXDAMAGES_PERKLOCATECALLS | 'Dist - Excavation' | Excavation damages during reporting year: Total number of excavation damages per thousand locate calls | Numeric | Damages / Thousand Calls |
| 8 | Excavation_Damages | EXDAMAGES_RELEASEOFNATGAS | 'Dist - Excavation' | Excavation damages during reporting year: Total number of excavation damages which resulted in a release of natural gas | Integer | Count of damages |
| 9 | Excavation_Damages | EXDAMAGES_RESULTEDINSHUTDOWN | 'Dist - Excavation' | Excavation damages during reporting year: Total number of excavation damages which resulted in the pipeline being shut down | Integer | Count of damages |
| 10 | Excavation_Damages | EXDAMAGES_GIVENPRIORNOTICE | 'Dist - Excavation' | Excavation damages during reporting year: Total number of excavation damages where the operator was given prior notification of excavation activity | Integer | Count of damages |
| 11 | Excavation_Damages | EXDAMAGES_CLASS1 | 'Dist - Excavation' | Total number of excavation damages per class location (optional, if data is available): Class 1 | Integer | Count of damages |
| 12 | | | | | | |

Methane Challenge Program Accomplishments

This page summarizes Methane Challenge Partners' progress towards meeting their program commitments, as well as the methane reductions achieved through voluntary action during participation in the Methane Challenge Program. On this page you will also find the full data download for all Methane Challenge Partners, across all reporting years to-date.

- [Introduction](#)
- [Methane Challenge Accomplishments](#)
- [Methane Challenge Data Download](#)

Introduction

Methane Challenge Program Partners make ambitious commitments through the program's two

Program Accomplishments

Reporting - 2019

2019 Reporting Season

- Reporting is expected to launch mid-summer for both commitment options
- Partner Profiles, dataset downloads will be updated with newly submitted data later this year
- Methane Challenge reporting will occur during the summer moving forward

What's New in 2019

- Improved usability of Facility Info tab for BMP Reporters
- BMP Mains and Services emission reductions auto-calculate
- MC Facilities in e-GGRT have annual reporting status
- ONE Future reporting will be fully incorporated in e-GGRT

Next Steps

Continuous Improvement

- Program has designed a transparent process to incorporate stakeholder review and feedback
- Some upstream companies have expressed interest in making commitments for sources that were originally proposed, but never finalized:
 - Liquids unloading, equipment leaks
- Program will prioritize adding these sources based on expressed Partner interest, feasibility



Upcoming Events

Third annual AGA-EPA Renewable Natural Gas Workshop



Save the Date!

Sept 24, 2019
Reno, NV

Photo Credit: Ken Lund, CC BY-SA 2.0

2019 Natural Gas STAR & Methane Challenge Workshop

Save the Date!

Nov 4-6, 2019
Pittsburgh, PA



EPA Methane Challenge & Natural Gas STAR Programs



Contact us:

GasSTAR@epa.gov

Natural Gas STAR Website:

www.epa.gov/natural-gas-star-program