



Natural Gas STAR 2019 Program Updates Webinar

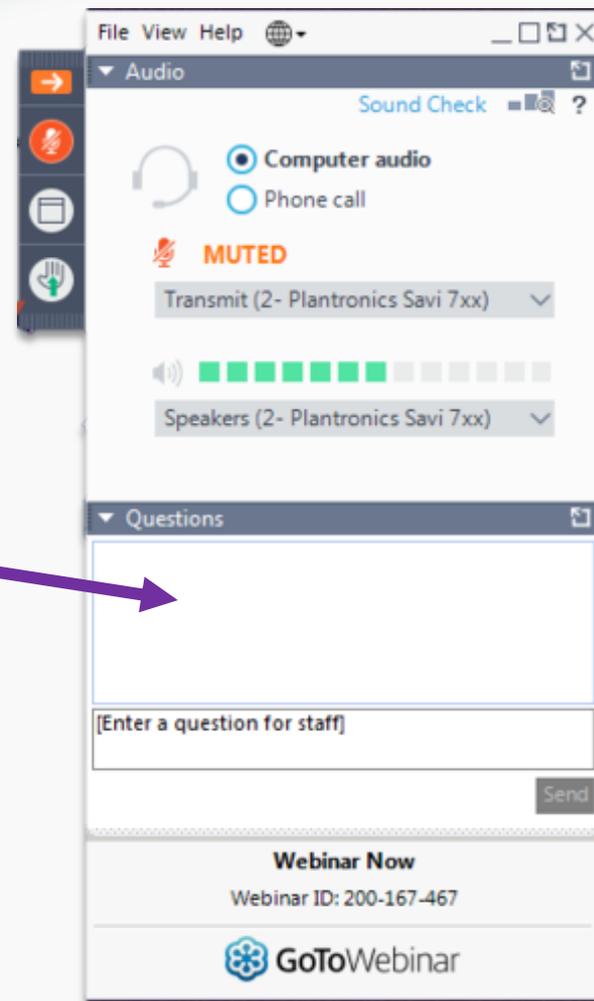
U.S. Environmental Protection Agency

March 13, 2019

Webinar Reminders



- All participants (except speakers) are in listen-only mode
- Questions can be submitted during the webinar and will be responded to as time permits
 - Type a question here
- If you are experiencing technical difficulties, please let us know using the Questions pane on the right side





- Summary of 2017 Natural Gas STAR Accomplishments
- Natural Gas STAR Program Updates: What's New in 2019
- Preview: Draft Updated Natural Gas STAR Forms
- Upcoming Webinars and Events



2017 Natural Gas STAR Partner Accomplishments

Summary of 2017 Accomplishments

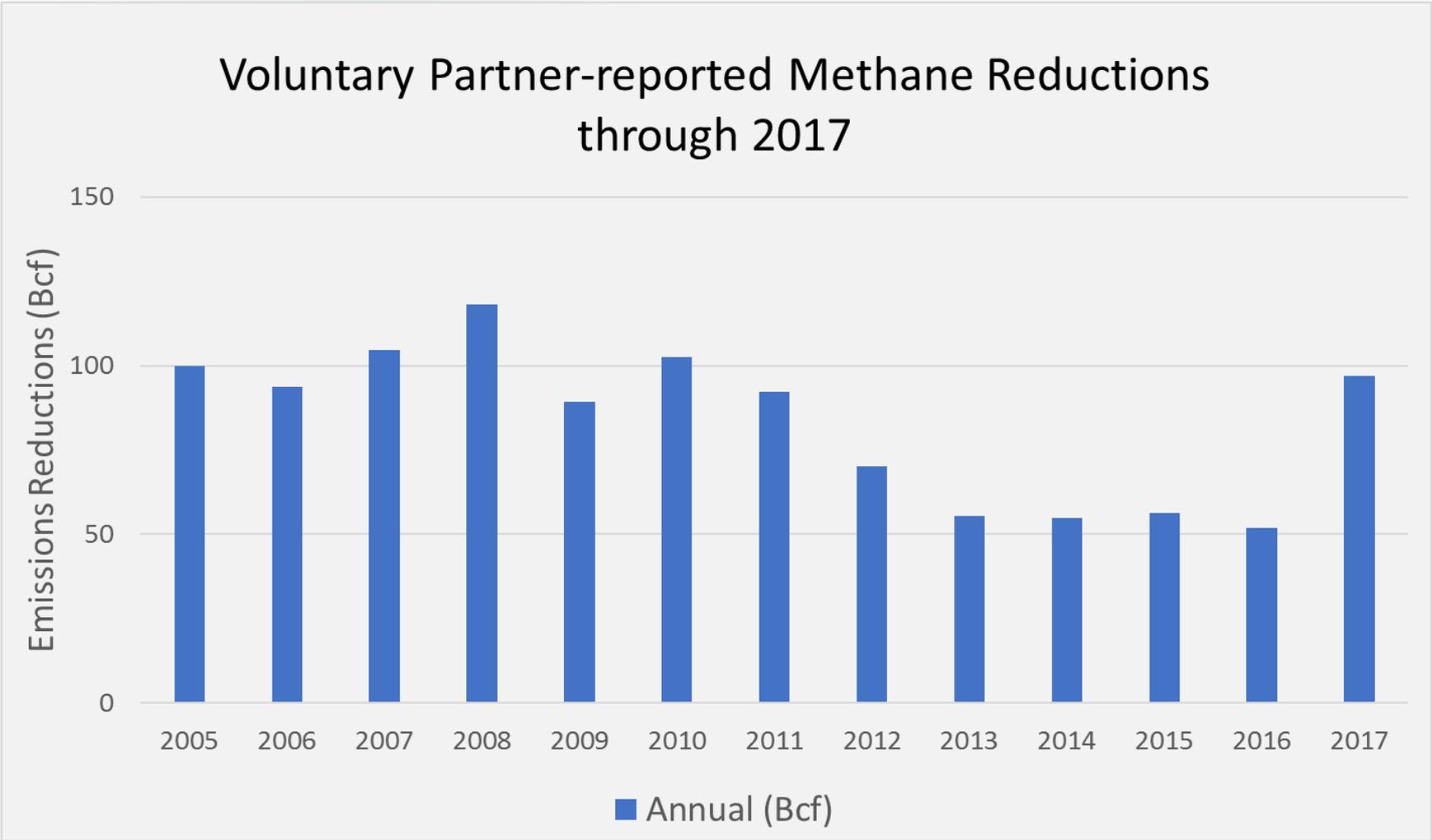


- During calendar year 2018, 53 Partners submitted an annual report detailing voluntary efforts in 2017 to reduce methane emissions
- These voluntary activities consisted of 45 technologies and practices
- Total voluntary methane emissions reductions of 96.8 Bcf reported
- The following charts present the total voluntary methane emissions reductions reported by Partners (annual and cumulative)

Natural Gas STAR Partner-reported Voluntary Annual Methane Emissions Reductions



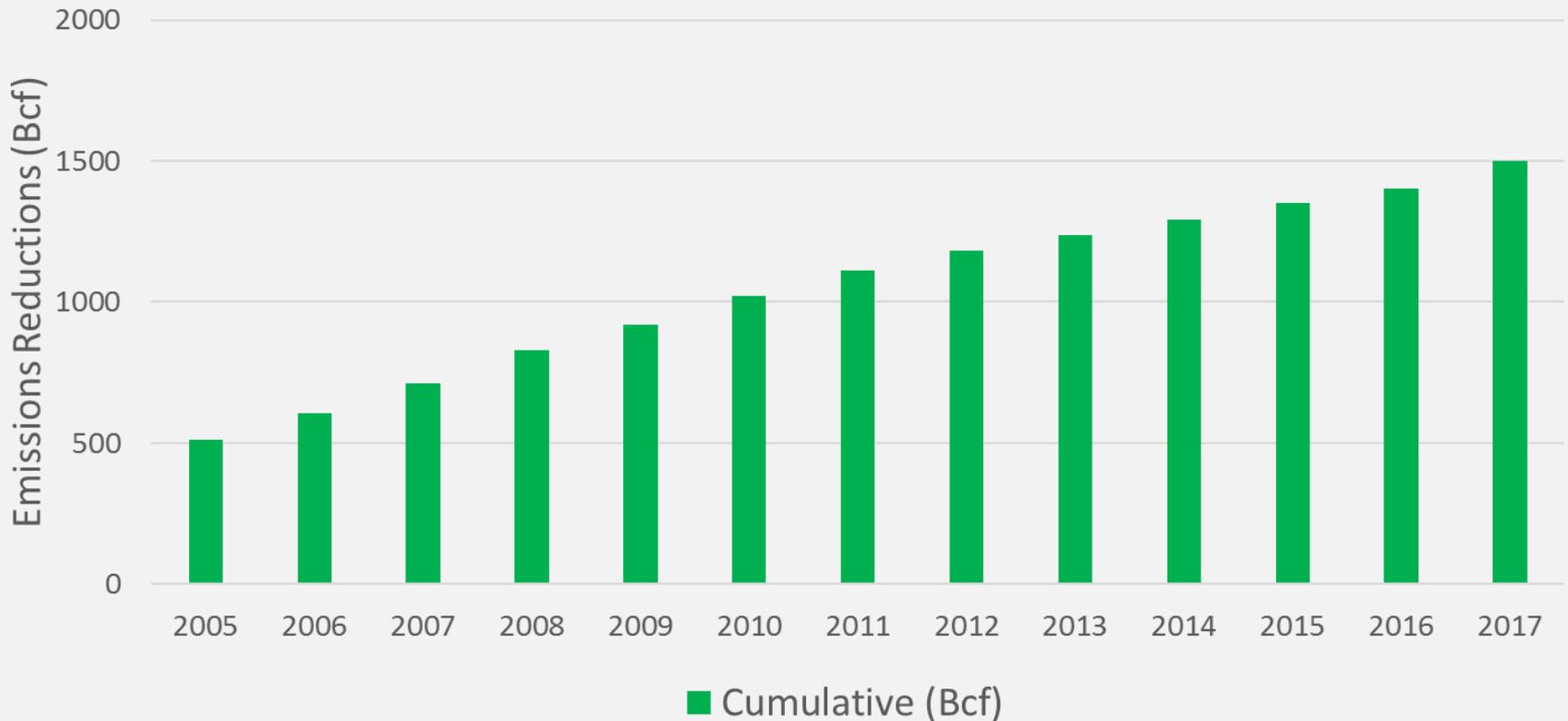
Voluntary Partner-reported Methane Reductions through 2017



Natural Gas STAR Partner-reported Cumulative Voluntary Methane Emissions Reductions



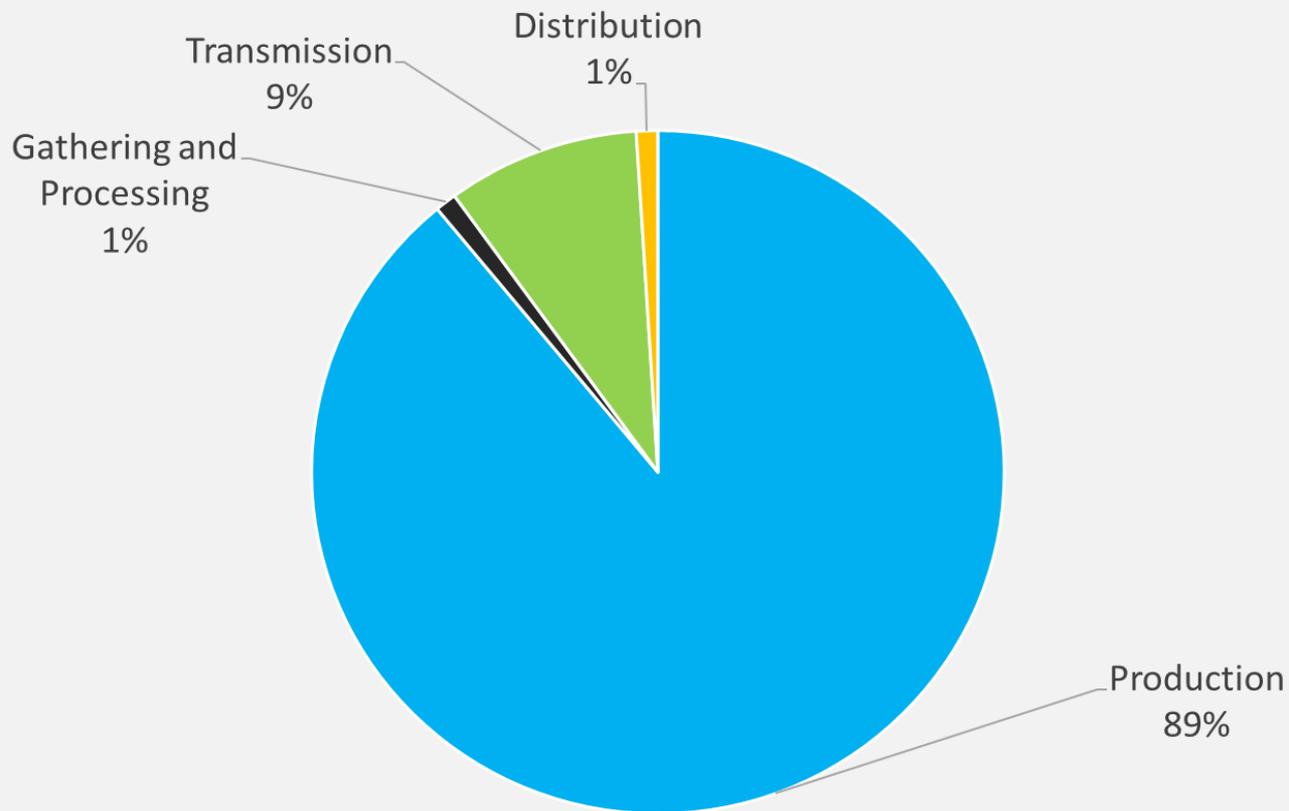
Cumulative Voluntary Partner-reported Methane Reductions through 2017



Natural Gas STAR Partner-Reported Voluntary Methane Emissions Reductions by Segment



2017 Partner-Reported Voluntary Methane Emissions Reductions by Segment (96.8 Bcf)



- Each Partner who submits an annual report receives a summary report (redesigned last year)
- Reports highlight the voluntary methane emissions reductions achieved by Partner under the Program

Reports show partner statistics and segment summaries



Natural Gas STAR Program Updates: What's New in 2019

Background: Information Collection Request (ICR)



- The Paperwork Reduction Act stipulates that every federal agency obtain approval from the Office of Management and Budget (OMB) before collecting the same information from 10 or more members of the public
- Because the Natural Gas STAR Program collects information from more than 9 Partners annually, the Program is required to have an approved Information Collection Request (ICR):
 - Describes what information is being collected
 - Estimates the burden associated with collecting it



- ICRs must be renewed every 3 years
- The Natural Gas STAR Program is currently in the process of renewing its ICR authorization, including some proposed changes to program forms and annual reporting to streamline and reduce burden to our Partners



- EPA is proposing changes to minimize the program's administrative elements and reduce burden on Partners:
 - MOU: streamlined, more flexible **Partnership Agreement** which consolidates the various segments into one document
 - Excel Form-Based System: transitioning from the online reporting tool will ease the reporting process by allowing partners to enter data in a simplified table format and email it to the Program
 - Implementation Plans: (optional); partners have the flexibility to use their own templates or templates provided by the Program to document their company-specific approaches to voluntary methane emission reductions

Proposed Program Updates: Partnership Agreement Form



- Program Memorandum of Understanding (MOU) for joining the partnership has not been updated in 26 years
- The new streamlined **Partnership Agreement** consolidates four separate segment-specific MOU forms into a single form
- It reflects reality that reporting is not the only way for companies to contribute and remain active in the Program

DRAFT Updated Partnership Agreement (pending OMB approval)



OMB Control No. 2060-0328
Expires XX/XX/20XX

NATURAL GAS STAR PROGRAM PARTNERSHIP AGREEMENT

The Natural Gas STAR Program is a flexible, voluntary partnership between EPA and the oil and natural gas industry aimed at demonstrating the cost-effectiveness and environmental benefits of methane emission reduction opportunities.

This is a voluntary agreement between _____ (company name) and the U.S. Environmental Protection Agency (EPA) for the purpose of reducing methane releases to the atmosphere by implementing cost-effective emission reduction technologies and practices. Responsibilities for both parties and General Terms are outlined on the following page.

Please select which sector segment(s) this partnership will cover (check all that apply):

Production Gathering and Processing Transmission Distribution

Authorized Partner Company Representative: (name and title)

Name, Title

Signature: _____ Date:

EPA Representative:

Paul M. Gunning: Director, Climate Change Division, U.S. Environmental Protection Agency

Signature: _____ Date:

Partner Designated Natural Gas STAR Implementation Manager:

Name: _____ Address: _____

Title: _____ City/State/Zip: _____

E-mail: _____ Telephone: _____

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to average 57 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

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EPA's Responsibilities

1. Provide contact information for an EPA Program Manager to assist the Partner in Program implementation.
2. Assist Partners with Program implementation with the following, as appropriate:
 - a. Analyzing and developing information on emerging technologies and practices;
 - b. Developing workshops and training courses; and
 - c. Providing technical assistance to Partners in implementing the Program Best Management Practices (BMPs) found at www.epa.gov/natural-gas-star-program
3. Provide public recognition for Partner company commitments to the Program through acknowledgement on EPA's web site.
4. EPA will only release information obtained from the Partner company without prior authorization from that company if required to do so under the Freedom of Information Act, the Agency's regulations at 40 CFR part 2, subpart B, or other applicable law.

Natural Gas STAR Partner's Responsibilities

1. Appoint a company representative as the Natural Gas STAR Program Implementation Manager responsible for implementing this voluntary agreement.
2. Develop a company-specific approach for active participation in the Program, including identifying expected activities and scope of implementation. This may include development of an Implementation Plan to be shared with EPA.
3. Annually evaluate cost-effective methane emission reduction opportunities and voluntarily implement BMPs to the extent feasible across operations within the United States.
4. Engage and share information with the Program on voluntary emission reduction activities annually, including one or more of the following activities:
 - a. Providing EPA with annual reports describing the BMPs implemented;
 - b. Presenting at a Natural Gas STAR workshop or other Program event; or
 - c. Developing technical documents that can be shared with Partners, such as through the Natural Gas STAR website.
5. Communicate participation to employees and cooperate with EPA efforts to publicize the Program.

General Terms

1. This agreement can be terminated by either party at any time, with no penalties and no further obligation. EPA requests that Partners notify EPA immediately if they plan to withdraw from the Partnership. EPA agrees not to publicize a Partner's withdrawal from the Program.
2. The Partner agrees that the activities it undertakes connected with this agreement are not intended to provide services to the federal government and that the Partner will not seek compensation from a federal agency.
3. The Partner agrees that it will not claim or imply that its participation in the Program constitutes EPA approval or endorsement of anything other than the commitment to the Program.
4. The Partner agrees to only share non-Confidential Business Information (CBI) to fulfill Gas STAR Program requirements, and understands that information submitted to the Program is subject to the Freedom of Information Act.

Please sign this form and send to:

EPA Natural Gas STAR Program
USEPA Headquarters
1200 Pennsylvania Avenue, NW
Mail Code: 6207A
Washington, DC 20460
GasSTAR@epa.gov

If overnight, send to:

1201 Constitution Ave NW
Room Number 4353PP
Washington, DC 20004

EPA Form No. 5900-105

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Proposed Program Updates: Streamlined Reporting Forms



- Program is phasing out online reporting tool
- Program will transition to an Excel form-based system
- Benefits of Excel forms for reporting:
 - Consolidates reporting elements
 - Removes unnecessary data inputs
 - Allows data entry into a simplified table format
 - Reduces Partners' reporting burden

Proposed Timeline for the 2019 Reporting Season

Reporting email and forms sent to Partners

Spring 2019

Deadline for Partners to submit reports

Summer 2019

Summary reports distributed to Partners

Fall 2019

Proposed Program Updates: Reporting



- All reported activities will be called Best Management Practices (BMPs)
- Activities, technologies, and practices will be organized by emission source
- Methodologies for reporting emission reductions will include:
 - New streamlined terminology
 - Changes to the methodologies for 2 sources to be consistent with GHGRP

Pneumatic Controllers

- Current Gas STAR BMP: only includes replacement of high-bleed devices
- Proposed updated methodology:
 - Also include replacement of low-bleed controllers
 - Calculate reductions using emission factors in GHGRP (Part 98 Subpart W)

Distribution Mains and Services

- Current Gas STAR BMP:
 - Accounts for mains replacement of any type of material
 - Reductions calculated as miles of pipeline replaced multiplied by the pipeline material's emission factor (from 1996 GRI Study)
- Proposed updated methodology:
 - Accounts for replacement of cast iron and unprotected steel with specific types of pipeline
 - Reductions calculated as the change in emissions that result
 - Continue to use 1996 GRI emission factors, consistent with GHGRP – Part 98 Subpart W

DRAFT PROPOSED Reporting Forms: Production Segment (subject to OMB approval)

Draft Reporting Forms (subject to OMB approval): Partner Information



	A	B	C	D	E	F	G	H	I	J	K
1	Natural Gas STAR Annual Report - Production Segment										
2	FORM VERSION: REPORTING SEASON 20XX										
3											
4	Partner Name	<input type="text"/>									
5	Reporting Year	20XX									
6											
8	Use the Table of Contents below to navigate to the different tabs of the form. You can use column B to indicate if you reported data on a specific tab.										
9											
10	Production Emission Sources	Data Reported	Information								
11	Dehydrator Vents		Install flash tank separators on glycol dehydrator vents								
12	Pneumatic Controllers		Convert high-bleed controllers to low-bleed; convert high-bleed or low-bleed controllers to zero-emitting controllers; remove controllers from service with no replacement								
13	Additional Production Activities		Use this tab to report all other methane reductions in the Production segment. You will be able to select the technology/practice used from the list of Natural Gas STAR Partner Reported Opportunities. If the activity you are reporting is not included in the list, please contact EPA at GasSTAR@epa.gov								
14											
16											
17											
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19											
20											
21											
22											
	The public reporting and recordkeeping burden for this collection of information is estimated to average 51 hours for each new response and 25 hours for subsequent responses. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.										
	Partner Info and ToC Dehydrator Vents Pneumatic Controllers Additional Activities references picklists +										

Draft Reporting Forms (subject to OMB approval): Dehydrator Vents – Default Calculation



Dehydrator Vents Return to Table of Contents											
Install Flash Tank Separators on Glycol Dehydrators											
Start Year	Eligible Sunset Years for this Activity	Automatically calculate sunsets?	End Year	Calculation Method: Default, Standard, or Other	Calculate Using Default			Calculate Using Standard Calculation			
					Number of Flash Tank Separators Installed	Average Gas Throughput (MMcf/yr)	Calculated Total Methane Emission Reduction Based on Default Values {{[Number of Flash Tank Separators Installed]x[Average Gas Throughput] x 170 scf/MMcf x 0.9] / 1000}}	TEG Circulation Rate (gal/hr)	Methane Entrainment Rate (scf/gal)	Hours of Operation (hrs/yr)	Calculated Total Methane Emission Reduction Based on Standard Calculation [Methane Entrainment Rate x Hours of Operation]
2017	10	Yes	2026	Default							

Draft Reporting Forms (subject to OMB approval): Dehydrator Vents – Standard Calculation



Dehydrator Vents Return to Table of Contents											
Install Flash Tank Separators on Glycol Dehydrators											
Start Year	Eligible Sunset Years for this Activity	Automatically calculate sunsets?	End Year	Calculation Method: Default, Standard, or Other	Calculate Using Default			Calculate Using Standard Calculation			
					Number of Flash Tank Separators Installed	Average Gas Throughput (MMcf/yr)	Calculated Total Methane Emission Reduction Based on Default Values {{[Number of Flash Tank Separators Installed]x[Average Gas Throughput] x 170 scf/MMcf x 0.9} / 1000}}	TEG Circulation Rate (gal/hr)	Methane Entrainment Rate (scf/gal)	Hours of Operation (hrs/yr)	Calculated Total Methane Emission Reduction Based on Standard Calculation {{[Methane Entrainment Rate] x [Hours of Operation] / 1000}}
2017	10	Yes	2026	Standard							

Draft Reporting Forms (subject to OMB approval): Dehydrator Vents – Other Calculation



	A	B	C	D	E	M	N	O	P
1	Dehydrator Vents								
2	<i>Install Flash Tank Separators on Glycol Dehydrators</i>								
3	Start Year	Eligible Sunset Years for this Activity	Automatically calculate sunsets?	End Year	Calculation Method: Default, Standard, or Other	Other Calculation		Provide additional comments or detail about how your company implemented this BMP	
Reduction [TEG] Units of						Total Methane Emission Reduction Based on Other Assumptions (Mcf/yr)	Explain Reduction Calculation Used		
4	2017	10	Yes	2026	Other				
5									
6									
7									
8									
9									
10									
11									

Draft Reporting Forms (subject to OMB approval): Pneumatic Controllers



Pneumatic Controllers Return to Table of Contents										
Convert high-bleed controllers to low-bleed; convert high-bleed or low-bleed controllers to zero-emitting controllers; remove controllers from service with no replacement										
Start Year	New or Ongoing?	Average Methane Content of Gas (enter as a decimal; leave blank to use default 82.1% methane)	Average annual operating hours (leave blank to use default 8760 hours)	Convert high-bleed to low-bleed		Convert high-bleed to zero-bleed/remove from service		Convert low-bleed to zero-bleed/remove from service		Provide additional comments or detail about how you implemented this BMP
				Number of controllers converted	Calculated Total Methane Emission Reductions (Mcf/yr)	Number of controllers converted/removed from service	Calculated Total Methane Emission Reductions (Mcf/yr)	Number of controllers converted/removed from service	Calculated Total Methane Emission Reductions (Mcf/yr)	

Draft Reporting Forms (subject to OMB approval): Pneumatic Controllers – Calculations



Pneumatic Controllers Return to Table of Contents										
Convert high-bleed controllers to low-bleed; convert high-bleed or low-bleed controllers to zero-emitting controllers; remove controllers from service with no replacement										
Start Year	New or Ongoing?	Average Methane Content of Gas (enter as a decimal; leave blank to use default 82.1% methane)	Average annual operating hours (leave blank to use default 8760 hours)	Convert high-bleed to low-bleed		Convert high-bleed to zero-bleed/remove from service		Convert low-bleed to zero-bleed/remove from service		Provide additional comments or detail about how you implemented this BMP
				Number of controllers converted	Calculated Total Methane Emission Reductions (Mcf/yr)	Number of controllers converted/removed from service	Calculated Total Methane Emission Reductions (Mcf/yr)	Number of controllers converted/removed from service	Calculated Total Methane Emission Reductions (Mcf/yr)	
2017	New	80%	8000	2	459.65	3	716.16	4	35.58	
2017	Ongoing			2	516.53	3	804.78	4	39.99	

Draft Reporting Forms (subject to OMB approval): Additional Activities



1	Additional Production Activities		Return to Table of Contents						
2	Start Year	Select the Activity	Eligible Sunset Years for this Activity	Automatically calculate sunsets (if Sunset Years >1)?	End Year	Total Methane Emission Reduction (Mcf/yr)	Basis for Emission Reduction Estimate	Explain Reduction Calculation Used	Describe how your company im units installed or c
3									
4									
5									
6									
7									
8									
9									
10									

Draft Reporting Forms (subject to OMB approval): Additional Activities – Selecting Activities



Additional Production Activities		Return to Table of Contents						
Start Year	Select the Activity	Eligible Sunset Years for this Activity	Automatically calculate sunsets (if Sunset Years >1)?	End Year	Total Methane Emission Reduction (Mcf/yr)	Basis for Emission Reduction Estimate	Explain Reduction Calculation Used	Describe how your company im units installed or c
2017	Artificial lift: install velocity tubing strings	10		2017				
	<ul style="list-style-type: none"> Artificial lift: gas lift Artificial lift: install plunger lifts Artificial lift: install pumpjacks or rod pumps on gas wells Artificial lift: install smart lift automated systems on gas wells <li style="background-color: #e1ecf4;">Artificial lift: install velocity tubing strings Artificial lift: pressure swabbing Artificial lift: use capillary strings Artificial lift: use compression 							

Draft Reporting Forms (subject to OMB approval): Additional Activities – Calculating Sunsets



1	Additional Production Activities		Return to Table of Contents						
2	Start Year	Select the Activity	Eligible Sunset Years for this Activity	Automatically calculate sunsets (if Sunset Years >1)?	End Year	Total Methane Emission Reduction (Mcf/yr)	Basis for Emission Reduction Estimate	Explain Reduction Calculation Used	Describe how your company im units installed or c
3	2017	Artificial lift: install velocity tubing strings	10	Yes	2026				
4				<div style="border: 1px solid black; padding: 2px;"> Yes No N/A </div>					
5									
6									
7									
8									
9									
10									

Draft Reporting Forms (subject to OMB approval): References



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	This sheet summarizes values used in calculations in this workbook. If you have questions on any of the values used, please contact EPA at GasSTAR@epa.gov														
2															
3	Install Flash Tank Separators on Glycol Dehydrators														
4	Default Values														
5	Emission Factor ¹	170	scf/MMcfd												
6	Efficiency ²	0.9	percent (expressed as decimal)												
7															
8	Pneumatic Controllers														
9	Emission Factors	<i>Source: 40 CFR 98, Table W-1A (Population Emission Factors, Gas Service)</i>													
10	Low Continuous Bleed Pneumatic Device Vents	1.39	scf whole gas / hr / device												
11	High Continuous Bleed Pneumatic Device Vents	37.3	scf whole gas / hr / device												
12															
13	Default Values														
14	Operating hours	8760	Assumes 24/7 operation all year												
15	Methane content of natural gas	82.1%	Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016, Annex 3.6 (Table 3.6-3), https://www.epa.gov/sites/production/files/2018-04/2018_ghgi_natural_gas_systems_annex_tables.xlsx												
16															
17															
18															
19	Notes:														
20	¹ Derived from "Methane Emissions from the Natural Gas Industry," Volume 14, Glycol Dehydrators, co-sponsored by the Gas Research Institute and EPA, June 1996.														
21	² Derived from "Optimize Glycol Circulation And Install Flash Tank Separators In Glycol Dehydrators" Lessons Learned document, EPA, October 2006.														
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29															

For More Information



- Additional information is included in the Federal Register Notice on the Regulations.gov website
- Specific feedback should be submitted to the ICR docket by March 25, 2019

Enter the ICR renewal number “1736.08” in the Search box on <https://www.regulations.gov/>

Use the “Comment Now” button to submit a comment



Agency Information Collection Activities; Proposals, Submissions, and Approvals: Natural Gas STAR Program

Comment Now!

Due Mar 25, 2019 11:59 PM ET

- Document Contents : ...request (ICR), EPA's Natural Gas STAR Program (EPA ICR No. **1736.08**, OMB Control No. 2060-0328) to the Office of Management and Budget...

[Open Docket Folder](#)

Notice by EPA on 02/22/2019

ID: EPA-HQ-OAR-2004-0082-0035



Any Questions?





Upcoming Webinars

- Data and Analytics Webinar Series

Later this Year

- All Partnership Conference (location TBD, anticipated in Fall 2019)

Check Out the New Look and Feel of our Website!



The screenshot shows the EPA website's navigation bar with links for Environmental Topics, Laws & Regulations, and About EPA. The main heading is "EPA's Voluntary Methane Programs for the Oil and Natural Gas Industry". Below this, there are sections for "Events" (with a link to a 2018 workshop), "Methane Challenge", "Natural Gas STAR", "Outreach and Events", and "Oil & Gas Industry". A sidebar on the right includes "Technologies", "Presentations", and "Technical presentations".

<https://www.epa.gov/natural-gas-star-program>

- Thank you for participating and your continued support of the Natural Gas STAR Program!
- Please complete the poll questions to provide feedback and input on future topics.
 - Jerome Blackman: (202) 343-9630 or blackman.jerome@epa.gov
 - Sarah Menassian: (202) 343-9165 or menassian.sarah@epa.gov