

# Annual Report 2015



## Distribution Sector

### Company Information

Company Name: \_\_\_\_\_

Contact: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip Code: \_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

### Annual Report Summary

- BMP 1: Directed inspection and maintenance at gate stations and surface facilities
- BMP 2: Identify and rehabilitate leaky distribution pipes
- Partner Reported Opportunities (*please specify*):

\_\_\_\_\_  
\_\_\_\_\_

Period covered by report: From: \_\_\_\_\_ To: \_\_\_\_\_

#### Partner Signature Required:

I hereby certify the accuracy of the data contained in this report. \_\_\_\_\_  
Date

- Because the implementation of some technologies reduces emissions for multiple years, Natural Gas STAR allows certain activities to count towards a company's emission reductions beyond the initial year of implementation. Natural Gas STAR designates the maximum length of time that these reductions may accrue as "sunset dates." The Appendix lists these sunset dates. Companies can report the corresponding methane emission reductions each year up to the allowable sunset date. Or, companies may wish to report reductions only once for the implementation year, and have EPA automatically apply the sunset date and count those emissions for the allowable number of years.
- In addition to reporting methane emissions reductions, you are welcome to include other information about your company's participation in Natural Gas STAR in the "Additional Program Accomplishments" section of this form. The Natural Gas STAR Program will use any information entered in this section to recognize the efforts and accomplishments of outstanding partners.



## BMP 1: Directed Inspection and Maintenance at Gate Stations and Surface Facilities

### Summary of Emission Reduction Activities

Please include aggregate information in this section for all locations. If multiple facilities/locations are represented, additional detail by specific facility/location can be provided in the table below.

**A. Facility/location identifier information:**

(If only one location note here, otherwise use table below.) \_\_\_\_\_

**B. Project summary:**

Number of surveys conducted at this facility for reporting period \_\_\_\_\_ surveys      Total number of leaks repaired: \_\_\_\_\_ leaks repaired

Total number of leaks found: \_\_\_\_\_ leaks found

**C. Cost summary:**

Total cost of surveys conducted: \$ \_\_\_\_\_      Total cost of leak repairs: \$ \_\_\_\_\_

**D. Methane emissions reduction:** \_\_\_\_\_ Mcf

\* BMP 1 must be reported on an annual basis according to actual survey activity.

**Please identify the basis for the emissions reduction estimate, using the space provided to show any calculations**

Actual field measurement       Other (please specify):

Calculation using default\*

*Methane emissions reduction = Average annual leak rate for facility (1,700 Mcf) × Reduction efficiency (70%)*

\* Important note: The default value is to be used only for above ground, high-pressure (>300 psig) inlet facilities at which the guidelines outlined in EPA's Lessons Learned: Directed Inspection and Maintenance at Gate Stations and Surface Facilities have been applied. In addition, partners should only report reductions once per year per facility **and** should verify that the default value is used only at facilities where leak repairs were performed.

**E. Total value of gas saved:** \$ \_\_\_\_\_

*Total value of gas saved = Methane emissions reduction (in Mcf) × Gas value (in \$/Mcf) [If not known, use default of \$3.50/Mcf]*

**F. Do you plan to survey this facility/location next year?**

\_\_\_\_\_ (Yes/No)

**Optional: Additional details by location**

Facility/Location identifier Information	Total Cost of Surveys (\$)	Total Cost of Repairs (\$)	Estimated Reductions (Mcf/yr)	Value of Gas Saved (\$)

**BMP 1 Comments:** Please use the back of the page for additional space if needed.



## BMP 2: Identify and Rehabilitate Leaky Distribution Pipes

### Summary of Emission Reduction Activities

*Please include aggregate information in this section for all locations. If multiple facilities/locations are represented, additional detail by specific facility/location can be provided in the table below.*

**A. Facility/location identifier information:**

*(If only one location note here, otherwise use table below.)* \_\_\_\_\_

**B. Replacement summary:**

Miles of distribution pipe replaced: \_\_\_\_\_ miles  
 Number of services replaced: \_\_\_\_\_  
 Total cost of pipe replacement: \$ \_\_\_\_\_

**C. Leak summary:**

Total number of leaks repaired (excluding pipe replacement): \_\_\_\_\_ leaks repaired  
 Total cost of leak repairs: \$ \_\_\_\_\_

**D. Methane emissions reductions:** \_\_\_\_\_ Mcf

*\* BMP 2 must be reported on an annual basis according to actual survey activity.*

**Please identify the basis for methane emissions reductions estimate, using the space provided to show calculations**

- Actual field measurement
- Calculation using default [Methane emissions: Miles replaced x Leak rate conversion factor (Mcf/mile/year) or Number of services replaced x Leak rate conversion factor (Mcf/service/year)]

Type of Pipe Replaced	Main Replacement			Services Replacement		
	Miles Replaced	Leak Rate Conversion (Mcf/mile/year)	Methane Emissions	Number of Services Replaced	Leak Rate Conversion (Mcf/service/year)	Methane Emissions
Cast Iron	miles	239	Mcf			
Protected Steel	miles	3	Mcf	services	0.2	Mcf
Unprotected Steel	miles	110	Mcf	services	1.7	Mcf
Plastic	miles	12	Mcf	services	0.01	Mcf
Copper				services	0.3	Mcf
Not Available (Average)	miles	29	Mcf	services	0.3	Mcf
<b>Totals:</b>	miles		Mcf	services		Mcf

Other (please specify): \_\_\_\_\_

**E. Total value of natural gas saved:** \$ \_\_\_\_\_

*Total value of natural gas saved = Methane emissions reductions (in Mcf) x Gas value (in \$/Mcf) [If not known, use default of \$3.50/Mcf]*

**F. How many miles of pipe or number of services do you plan to replace next year?**

\_\_\_\_\_ miles  
 \_\_\_\_\_ services

**Optional: Additional details by location**

Facility/Location identifier Information	Miles of Pipe Replaced	# of Services Replaced	Total Cost of Replacements (\$)	# of Leaks Repaired	Total Cost of Repairs (\$)	Estimated Reductions (Mcf/yr)	Value of Gas Saved (\$)

**BMP 2 Comments:** Please use the back of the page for additional space if needed.



## Partner Reported Opportunities (PROs)

*For more details on PROs, visit [epa.gov/gasstar/tools/recommended.html](http://epa.gov/gasstar/tools/recommended.html)*

### Summary of Emission Reduction Activities

*Please include aggregate information in this section for all locations. If multiple facilities/locations are represented, additional detail by specific facility/location can be provided in the table below.*

**A. Facility/location identifier information:**

*(If only one location note here, otherwise use table below.)* \_\_\_\_\_

**B. Project description: Please provide a separate PRO reporting form for each activity reported. If reporting a DI&M activity, please use a separate page for each location/facility surveyed.**

Please specify the technology or practice that was implemented (choose from the list in the appendix or describe your own):

Please describe how your company implemented this activity:

**C. Level of Implementation** *(check one):*

- Number of units installed: \_\_\_\_\_ units
- Frequency of practice: \_\_\_\_\_ times/year

**D. Are emissions reductions a one-year reduction or a multi-year reduction?**  One-year  Multi-year

**If Multi-year:**

- Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration\*.
- Partner will report this activity annually up to allowed sunset date.

**E. Methane emissions reduction:** \_\_\_\_\_ Mcf

**F. Cost summary:** Estimated cost of implementing this practice/activity *(including equipment and labor)*: \$\_\_\_\_\_

***Please identify the basis for the emissions reduction estimate, using the space provided to show any calculations***

- Actual field measurement  Other *(please specify):*
- Calculation using manufacturer specifications/other source

**G. Total value of gas saved:** \$ \_\_\_\_\_

Total value of gas saved = Methane emissions reduction (in Mcf) x Gas value (in \$/Mcf) [If not known, use default of \$3.50/Mcf]

**H. To what extent do you expect to implement this practice next year?**

**Optional: Additional details by location**

Facility/Location identifier Information	Frequency of Practice/Activity/# of Installations	Total Cost of Practice/Activity (incl. equipment and labor) (\$)	Estimated Reductions (Mcf/yr)	Value of Gas Saved (\$)

**PRO Comments:** *Please use the back of the page for additional space if needed.*

\*Because the implementation of some technologies reduces emissions for multiple years, Natural Gas STAR allows certain activities to count towards a company's emission reductions beyond the initial year of implementation. Natural Gas STAR designates the maximum length of time that these reductions may accrue as "sunset dates." The Appendix lists these sunset dates. Companies can report the corresponding methane emission reductions each year up to the allowable sunset date. Or, companies may wish to report reductions only once for the implementation year, and have EPA automatically apply the sunset date and count those emissions for the allowable number of years.





## Additional Program Accomplishments

The Natural Gas STAR Program will use any information entered here to recognize the efforts and achievements of outstanding partners.

Please include any additional information you would like to share about your company's participation in Natural Gas STAR. Examples may include:

- Activities to strengthen your program (e.g., training/education, innovative technologies or activities, pilot projects, employee incentive programs).
- Efforts to communicate your participation and successes (e.g., internal newsletters, press releases, company website).
- Participation in Natural Gas STAR program activities (e.g., contributions to case studies, presentation at annual workshop).

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**Additional Accomplishments:**

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**Additional Accomplishments Comments:** *Please use the back of the page for additional space if needed.*



## Appendix

### Methane Emission Reduction Technologies & Practices— Distribution Sector

The list below describes a variety of methane emission reduction technologies that Natural Gas STAR partners in the distribution sector have implemented and reported to Natural Gas STAR. You may use this list as a guide when completing your annual report. **Sunset dates (i.e., the length of time a technology or practice can continue to accrue emission reductions after implemented) are one year in duration unless otherwise noted in parentheses.** An asterisk (\*) indicates that a technical document related to the technology or practice is available online at [epa.gov/gasstar/tools/recommended.html](http://epa.gov/gasstar/tools/recommended.html).

#### Compressors/Engines

- Eliminate unnecessary equipment and/or systems\*
- Install electric motor starters (10 years)\*
- Redesign blowdown/alter ESD practices\*
- Reduce natural gas venting with fewer compressor engine startups and improved engine ignition\*
- Replace compressor rod packing systems\*

#### Dehydrators

- Reroute dehydrator/tank vents to flare or station suction (10 years)\*

#### Directed Inspection and Maintenance

- DI&M at compressor stations (non-mainline transmission)\*
- DI&M at gate stations and surface facilities\*
- DI&M: increase frequency of leak surveys\*
- DI&M: survey and repair leaks\*
- Improve measurement systems to track gas loss

#### Pipelines

- Identify and rehabilitate leaky distribution pipes
- Insert gas main flexible liners (10 years)\*
- Reduce/downgrade system pressure
- Reduced emissions through third-party damage prevention
- Use hot taps for in-service pipeline connections\*
- Use no-blow insertion fittings
- Use pipeline pump-down techniques to lower gas line pressure before maintenance\*

#### Pneumatics/Controls

- Convert gas pneumatic controls to instrument air (10 years)\*
- Convert natural gas-driven chemical pumps (10 years)\*
- Convert pneumatic devices to mechanical/electronic (10 years)\*
- Identify and replace high-bleed pneumatic devices (7 years)\*
- Use add-on controls to reduce emissions from pneumatics (10 years)

#### Valves

- Install excess flow valves (10 years)\*
- Install overpressure protection system (10 years)
- Test and repair pressure safety valves\*
- Test gate station pressure relief valves with nitrogen

#### Other

- Convert natural gas-fired generator to solar power (10 years)
- Improve system design/operation
- Inject blowdown gas into low pressure mains or fuel gas system\*
- Install flares (10 years)\*
- Re-inject CNG cylinder test gas
- Retighten LNG pump seals
- Use automated systems to reduce pressure

**Mailing Information:**

Standard Mail:

The Natural Gas STAR Program  
U.S. EPA (6207J)  
1200 Pennsylvania Ave, NW  
Washington, DC 20460  
U.S.A.

Express/Overnight Mail:

The Natural Gas STAR Program  
U.S. EPA (6207J)  
1310 L Street, NW  
Washington, DC 20005  
U.S.

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