

# Annual Report 2008



## Distribution Sector

### Company Information

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

Gas STAR 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, Gas STAR allows certain activities to count towards a company's emission reductions beyond the initial year of implementation. 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.



# Distribution Sector Annual Report

OMB Control No. 2060-0328  
Expires 7/31/2011

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

### Current Year Activities

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

(Note: Please use a separate page for each facility surveyed) \_\_\_\_\_

**B. Leak 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 aboveground, 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.*

*For assistance quantifying the methane emission reductions achieved by BMP 1, please refer to the Gas STAR Emission Reduction Quantification Reference Guide, available on the Gas STAR Web site at: [epa.gov/gasstar/documents/xls/quantifying\\_ngs\\_methane\\_reductions.xls](http://epa.gov/gasstar/documents/xls/quantifying_ngs_methane_reductions.xls).*

**E. 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 \$7.00/Mcf]*

**F. Do you plan to survey this facility/location next year?** \_\_\_\_\_ (Yes/No)

### Previous Years' Activities

*Use the table below to report any past activities implemented, but not previously reported to the Natural Gas STAR Program*

Year	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.



# Distribution Sector Annual Report

OMB Control No. 2060-0328  
Expires 7/31/2011

## BMP 2: Identify and Rehabilitate Leaky Distribution Pipes

### Current Year Activities

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

**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.*

**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
Totals:	miles		Mcf	services		Mcf

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

*For assistance quantifying the methane emissions reductions achieved by BMP 2, please refer to the Natural Gas STAR Emission Reduction Quantification Reference Guide, available on the Natural Gas STAR Web site at: [epa.gov/gasstar/documents/xls/quantifying\\_ngs\\_methane\\_reductions.xls](http://epa.gov/gasstar/documents/xls/quantifying_ngs_methane_reductions.xls).*

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

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

Total value of natural gas saved = Methane emissions reductions (in Mcf) x Gas value (in \$/Mcf) [If not known, use default of \$7.00/Mcf]

### Previous Years' Activities

*Use the table below to report any past activities implemented, but not previously reported to the Natural Gas STAR Program*

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

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



# Distribution Sector Annual Report

OMB Control No. 2060-0328  
Expires 7/31/2011

## Partner Reported Opportunities (PROs)

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

### Current Year Activities

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

**B. Activity 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 provided, using the space provided to show any calculations**

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

For assistance quantifying the methane emission reductions achieved by a particular technology or practice, please refer to the Gas STAR Emission Reduction Quantification Reference Guide, available on the Gas STAR Web site at: [epa.gov/gasstar/documents/xls/quantifying\\_ngo\\_methane\\_reductions.xls](http://epa.gov/gasstar/documents/xls/quantifying_ngo_methane_reductions.xls).

**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 \$7.00/Mcf]*

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

### Previous Years' Activities

Use the table below to report any past implementation of this PRO, but not previously reported to Natural Gas STAR

Year	Frequency of Practice/Activity or # 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, Gas STAR allows certain activities to count towards a company's emission reductions beyond the initial year of implementation. 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.



## Distribution Sector Annual Report

OMB Control No. 2060-0328  
Expires 7/31/2011

### 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 Web site).
- Participation in Natural Gas STAR program activities (e.g., contributions to case studies, presentation at annual workshop).

---

**Additional Accomplishments:**

---

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



# Distribution Sector Annual Report

OMB Control No. 2060-0328  
Expires 7/31/2011

## 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 starters (10 years)\*
- Redesign blowdown systems and alter ESD practices\*
- Reduce the frequency of engine starts with gas\*
- Reducing methane emissions from compressor rod packing systems\*
- Replace ignition - reduce false starts\*

#### Directed Inspection and Maintenance

- DI&M at compressor stations\* (non-mainline transmission)
- DI&M: survey and repair leaks
- Improve measurement systems to track gas loss
- Increase walking survey from a 5-to 3-year basis\*

#### Pipelines

- Inject blowdown gas into low pressure mains\*
- Insert gas main flexible liners (10 years)\*
- Reduce/downgrade system pressure
- Reduced emissions through third-party damage prevention
- Use no-blow insertion fittings
- Using hot taps for in-service pipeline connections\*
- Using pipeline pumpdown techniques to lower gas line pressure before maintenance\*

#### Pneumatics/Controls

- Convert gas pneumatic controls to instrument air (10 years)\*
- Convert gas-driven chemical pumps to instrument air (10 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
- Install flares (10 years)\*
- Re-inject CNG cylinder test gas
- Replace aged heaters with new efficient gas fired heaters (10 years)
- Retighten LNG pumps seals
- Use automated systems to reduce pressure

The public reporting and recordkeeping burden for this collection of information is estimated to average 60 hours for each new response and 27 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.