# Implementation Plan



## Transmission Sector

Partner Address Label Here

If the information provided above is incorrect, please make corrections below.

Company Name:	
Gas Star Contact:	
Position:	
Address:	
City, State, Zip Code:	
Telephone:	
Fax:	
Email:	

### **Implementation Plan Elements**

### **ELEMENT 1** Best Management Practices (BMPs)

The following BMPs have been identified as significant opportunities to cost effectively reduce methane emissions from the transmission sector. They were selected based on their applicability to the industry, economic feasibility, and cost-effectiveness. There are three core BMPs for the transmission sector:

**BMP 1** Directed inspection and maintenance at compressor stations

**BMP 2** Use of turbines at compressor stations

**BMP 3** Identify and replace high-bleed pneumatic devices

For detailed information on these BMPs, please refer to the *Lessons Learned* publications on the Natural Gas STAR website: *epa.gov/gasstar/tools/recommended.html*.

#### **ELEMENT 2** Partner Reported Opportunities (PROs)

Current partners have reported many processes and technologies that are considered "other Best Management Practices" by the program. New partners are encouraged to evaluate and report current and new practices or technologies that cost effectively reduce methane emissions. PROs are made available to all partners, and can be viewed at: epa.gov/gasstar/tools/recommended.html.

### **ELEMENT 3** Inventory Past Reductions

Partners are encouraged to report past methane emission reductions back to 1990. Accounting for these historical reductions will create a permanent record of your company's methane emission reduction efforts. In addition, reviewing past activities will help guide companies' participation in Natural Gas STAR by creating a base of understanding of current activities to facilitate planning of future activities.

The Implementation Plan is designed to be a dynamic tool for Natural Gas STAR Partners to plan their program activities. As company priorities and plans shift over time, the Implementation Plan may be revised or updated by submitting a new form to the program.

### ELEMENT 1 Best Management Practices

### BMP<sub>1</sub> **Implement Directed Inspection and Maintenance** at Compressor Stations A DI&M program is a system for performing routine leak detection and repair where **Estimated Reduction** Potential leak measurement data from previous inspections are used to guide subsequent inspections and direct maintenance to those leaks that are cost effective to repair. 8,540 Mcf per station Will you be implementing this BMP? Yes ☐ No If no, why? Not cost effective May consider at a later date Other \_\_\_\_\_ please describe: If yes, at what scale will you be implementing this BMP? Company Wide Pilot Project Other \_\_\_\_\_ Please describe: **Activity Summary** Total number of compressor stations? Total number of compressor stations at which DI&M will take place? **Inspection Schedule** Stations will be inspected: quarterly annually biannually other Please list in detail the number of compressor stations that will implement BMP 31 in upcoming years. Year \_\_\_\_\_ Number of compressor stations \_\_\_\_\_ Year \_\_\_\_\_ Number of compressor stations \_\_\_\_\_ Year Number of compressor stations \_\_\_\_\_ Year \_\_\_\_\_ Number of compressor stations \_\_\_\_\_ **Additional Information on Anticipated Plans and Projects**

If additional space is needed, please continue on the back.

BMP 2 Use of Turbines at Compressor Stations					
Reciprocating engines used to drive compressors throughout transmission systems release significant amounts of methane in their exhaust. Replacing these engines with turbines can reduce a large portion of these methane emissions.			ust. Replacing these	Estimated Reduction Potential 0.234 Mcf/hp/hr per replacement	
Will you be implementing this BMP?					
If yes, at what scale will you be implementing this BMP?  Company Wide Pilot Project Other Please describe:					
		Activity Summ	nary		
Please fill out the table below to show the total number of engines selected for BMP 2.					
	Reciprocating Engines in Operation	Reciprocating Engines to be Retired	Turbines to Replace Retired Reciprocating Engines	New Turbine Installations (i.e., not Replacing Retired Engines)	
Number					
Horsepower					
Fuel use (e.g., MMcf/year)					
Installation Schedule					
Total number of turbines installed by the end of:					
Year 1: Year 2: Year 3: Year 4:					
Total number of reciprocating engines retired by the end of:					
Year 1: Year 2: Year 3: Year 4:					
	Additional In	formation on Anticipa	ated Plans and Projec	ts	

If additional space is needed, please continue on the back.

### BMP 3 **Identify and Replace High-Bleed Pneumatic Devices** Pneumatic devices used in the transmission sector actuate isolation valves and regulate Estimated gas flow and pressure at compressor stations, pipelines, and storage facilities. In the Reduction Potential distribution sector they are used on meter runs at gate stations for regulating flow and pressure. Replacing high-bleed pneumatic devices with low- or no-bleed devices reduces 124 Mcf/yr/device or eliminates emissions and improves safety. ☐ Yes □ No Will you be implementing this BMP? If no, why? Not cost effective May consider at a later date Have already implemented Other \_\_\_\_\_ please describe: If yes, at what scale will you be implementing this BMP? Company Wide Pilot Project Other \_\_\_\_\_ Please describe: **Activity Summary** Number of high-bleed pneumatic devices in system? Number of high-bleed pneumatic devices to be replaced? **Replacement Schedule** Number of high-bleed pneumatic devices to be replaced by the end of: Year 1: Year 2: Year 3: \_\_\_\_\_ Year 4: \_\_\_\_\_ **Additional Information on Anticipated Plans and Projects**

If additional space is needed, please continue on the back.

OMB Control No. 2060-0328 Expires 09/30/2018

# **ELEMENT 2**Partner Reported Opportunities

PROs (Partner Reported Opportunities)				
reported to Natural Gas STAR as PROs. Following is a	ogies or practices to reduce methane emissions. These can be list of some of the PROs that have been reported by other your operations (for more information on these PROs, please			
<ul> <li>Use pipeline pump-down techniques to lower gas line</li> <li>Use composite wrap repair</li> <li>Install electric compressors</li> <li>Use hot taps for in-service pipeline connections</li> <li>Replace wet compressor seals with dry seals</li> </ul>	e pressure before maintenance			
PROs you will be implementing	Please describe			
PRO				
PRO				
PRO At what scale will this PRO be implemented?  Company Wide Pilot Project Other				
PRO				
PROAt what scale will this PRO be implemented?  Company Wide Pilot Project Other				

### **ELEMENT 3 Inventory Past Reductions**

An inventory of past reductions will help to create a permanent record of your past efforts.			
As a first step, many new partners find it useful to inventory and document past methane emission reduction efforts. The inventory process helps companies quantify the success of their past activities and target future methane emission reduction efforts. Historical methane emission reductions identified as part of the inventory process can be reported to the Natural Gas STAR Program.			
Will you inventory past activities to include in your annual report?			
If yes, please describe your company's plans for reviewing past methane emission reduction activities.			

The Natural Gas STAR Program thanks you for your time.

Please send completed forms to:

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

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

Questions? Please call Jerome Blackman: (202) 343-9630 or Fax (202) 343-2202

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