

Introduction

Established in 1993, the Natural Gas STAR program is a voluntary partnership between the U.S. EPA and the oil and natural gas industry designed to cost-effectively reduce methane emissions from oil and natural gas operations. Methane is a potent greenhouse gas 21 times stronger than carbon dioxide. As the primary component of natural gas, methane is also a valuable clean energy source, and reducing emissions to the atmosphere improves partner companies' bottom line while adding to domestic natural gas supply. Natural Gas STAR partners share information on technologies and practices they have found to cost-effectively reduce methane emissions and improve operational efficiency. By working together to prevent gas losses, EPA and the oil and natural gas industry are successfully protecting the environment and improving profitability.

Natural Gas STAR industry partners have operations in all of the major industry sectors (production, processing, transmission, and distribution) and represent 56% of the natural gas industry in the U.S., including 23 of the top 25 U.S. natural gas production companies. Today, the Program has over 110 partner companies and is endorsed by nearly 20 major industry trade associations.

Natural Gas STAR Launches Natural Gas STAR International

In September 2006, Natural Gas STAR launched Natural Gas STAR International. Gas STAR International expands the scope of the domestic Program to promote and recognize partners' methane emission reduction activities at operations outside of the U.S. Natural Gas STAR International aims to combine expertise and experience from domestic U.S. partners, international operations of U.S. companies, and non-U.S. oil and gas companies. The following companies were recognized as founding partners of the Natural Gas STAR International Program at a signing ceremony on September 26, 2006:

- ConocoPhillips Canada
- Devon Energy Corporation
- Enbridge, Inc.
- ExxonMobil Corporation
- Marathon Oil Corporation
- Occidental Oil & Gas Corporation
- TransCanada

Welcome New Partners and Endorsers!

In 2005/2006, Natural Gas STAR welcomed seven new partners and eight new endorsers.

New Partners

CDX Gas (Production)

Enbridge, Inc. (Transmission)

Enterprise Products Operating L.P. (Processing)

Panhandle Eastern Pipeline (a Southern Union Gas Company) (Transmission)

Sea Robin Pipeline (a Southern Union Gas Company) (Transmission)

Targa Resources (Processing)

Trunkline Gas (a Southern Union Gas Company) (Transmission)

New Endorsers

Air & Waste Management Association (A&WMA) American Institute of Chemical Engineers (AIChE) Institute for

Sustainability

Colorado Oil and Gas Association (COGA)

Independent Petroleum Association of America (IPAA)

Northeast Gas Association (NGA)

Petroleum Association of Wyoming (PAW)

Petroleum Technology Transfer Council

Texas Alliance of Energy Producers



2005: A Record Year

Emissions Reductions

Now in its 14th year, the Natural Gas STAR Program has achieved significant success. Natural Gas STAR partners have eliminated nearly 471 billion cubic feet (Bcf) of methane emissions through the implementation of over 80 cost-effective technologies and practices. For calendar year 2005, Natural Gas STAR partners reported emissions reductions of approximately 74.6 Bcf, making it a record year for the Program. These emission reductions, voluntarily undertaken by Natural Gas STAR partner companies, have cross-cutting benefits on domestic energy supply, industrial efficiency, revenue generation and greenhouse gas emission reductions. The 2005 voluntary emissions reductions are equivalent to:

- The global warming equivalent of removing approximately 5.5 million cars from the road for one year or the carbon sequestered by approximately 8.2 million acres of forest in one year.
- Additional revenue of more than \$560 million in natural gas sales (assumes 2005 average gas price of \$7.51 per thousand cubic feet).
- Increased domestic natural gas supply equating to the amount of gas used to heat approximately 1.1 million homes for one year.

Natural Gas STAR Reporting

Reporting is an integral part of the Natural Gas STAR program. In 2005, approximately 80 percent of partners submitted emissions

Natural Gas STAR Emissions Reductions
Annual Reductions
Cumulative Reductions Since 1990



2005 Emissions Reductions by Sector (74.6 Bcf)



reductions reports as compared to approximately 72 percent in 2004. Additionally, 2005 saw an increase in the number of partners that reported in all industry sectors. Specifically, approximately 60 percent of production partners reported; 60 percent of processing partners reported; 96 percent of transmission partners reported; and 93 percent of distribution partners reported.

Technology Transfer Activities

In 2006, Gas STAR held nine Technology Transfer workshops, including one webcast and an international workshop in Villahermosa, Mexico. Workshops covered much of the U.S. oil and gas producing regions, with events in Wyoming, New Mexico, Alaska and Texas. Co-sponsored by industry partners, these workshops provide an opportunity for participants to engage in a peer-based exchange of technical and economic information related to cost-effective methane reduction technologies and practices and other best practices by Gas STAR Program partners. More information on these workshops can be found on the Gas STAR Web site at www.epa.gov/gasstar/ workshops/tt_workshops.htm.

Thanks to our 2006 Technology Transfer Workshop Sponsors:

- ConocoPhillips
- Devon Energy Corporation
- Gas Processors Association
- New Mexico Oil and Gas Association
- Occidental Oil & Gas Corporation
- Petroleum Association of Wyoming
- Petroleum Technology Transfer Council
- Targa Resources
- Western Gas Resources



Production Sector Accomplishments

Production Partners reported approximately 42 Bcf of methane emissions reductions in 2005—and a total of more than 257 Bcf since 1990. The top ten technologies and practices employed by production sector partners include:

Top 10 Technologies Since 1990: 257.8 Bcf

Top 10 Technologies in 2005: 42.0 Bcf



Detailed information on these technologies and practices can be found at: http://www.epa.gov/gasstar/techprac.htm

Processing Sector Accomplishments

Processing Partners reported 5.4 Bcf of methane emissions reductions in 2005—and a total of 18.4 Bcf since 1990. The top ten technologies and practices employed by processing sector partners include:



Detailed information on these technologies and practices can be found at: http://www.epa.gov/gasstar/techprac.htm



Transmission Sector Accomplishments

Transmission Partners reported more than 25 Bcf of reductions in 2005 - and a total of approximately 161 Bcf since 1993. The top ten technologies and practices employed by transmission sector partners include:



Detailed information on these technologies and practices can be found at: http://www.epa.gov/gasstar/techprac.htm

Distribution Sector Accomplishments

Distribution Partners reported more than 2 Bcf of reductions in 2005 - and a total of approximately 34 Bcf since 1993. The top ten technologies and practices employed by distribution sector partners include:



Detailed information on these technologies and practices can be found at: http://www.epa.gov/gasstar/techprac.htm