

Background: Global Methane Initiative and Natural Gas STAR International

The **Global Methane Initiative** (originally the “Methane to Markets Partnership”) is an international country-level initiative that advances the cost-effective, voluntary recovery of methane for use as a clean energy source. Global Methane Initiative was launched in November 2004 when 14 national governments signed on as partners. The Initiative has since grown to include 40 nations and the European Commission. Additionally, more than 900 companies, development banks and other organizations participate in the Global Methane Initiative Project Network.

Under this framework, the United States Environmental Protection Agency (U.S. EPA) launched **Natural Gas STAR International**, to expand on the success of its domestic program to promote methane emission mitigation activities in oil and natural gas operations worldwide. Started in 1993, the domestic Natural Gas STAR Program is a voluntary partnership with oil and natural gas companies that promotes cost-effective methane emission reduction technologies and practices among all sectors of the oil and natural gas industry. Through 18 years of collaboration with oil and natural gas companies in the United States, U.S. EPA has built a comprehensive suite of technical information on methane mitigation activities that have been successfully implemented by these companies. The Natural Gas STAR Program to date has more than 130 oil and natural gas corporate partners (14 of which are international partners) and has achieved methane emissions reductions of 994.2 billion cubic feet.

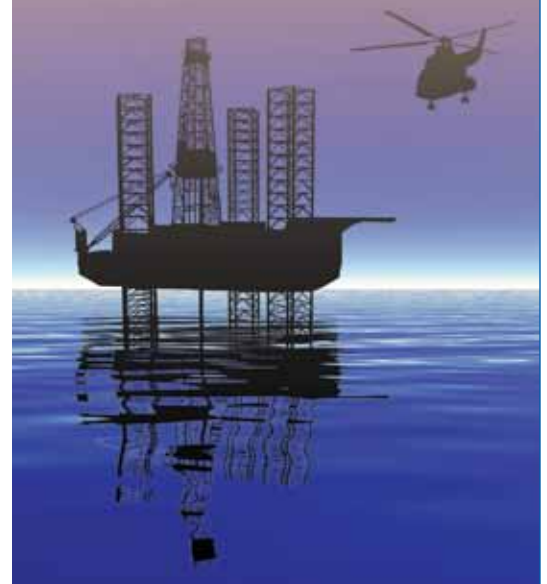
U.S. EPA Services

Under these programs, U.S. EPA seeks collaboration with international oil and natural gas companies in order to promote voluntary implementation of technologies and practices that have been proven to reduce methane emissions from oil and natural gas operations. Technology transfer is achieved when partner companies share information on their methane mitigation activities such that U.S. EPA can learn from their successes. In all cases, U.S. EPA seeks to maximize not only environmental benefits of activities, but also economic and operational benefits through increased revenue or cost savings, operational efficiencies and enhanced safety. To accomplish these goals, U.S. EPA provides the following services and resources to partner oil and natural gas companies.

- **Technical documents** describing more than 150 technologies and practices that can achieve cost-effective reductions in methane emissions from all sectors of oil and natural gas operations. The technical

Additional Information

- Recommended Technologies and Practices: epa.gov/gasstar/tools/recommended.html
- Natural Gas STAR International Program: epa.gov/gasstar/international
- Global Methane Initiative: globalmethane.org/gmi/



documents provide detailed emission reduction, economic, and other relevant data on proven, commercial technologies that have been implemented in the oil and natural gas industry.

- **Technical workshops** to raise awareness about the sources and volumes of methane emissions, as well as available technologies to identify, measure and reduce emissions. Targeted to environmental, operations, maintenance, and engineering staff, workshops provide technical detail on recommended technologies and practices, including operational considerations, economic analyses, environmental benefits and case studies from companies who have implemented the target activities.
- **International Partner Challenge Service** for partner companies interested in targeted assistance in analyzing profitable methane reduction opportunities. This type of assistance can range from desktop assessments, to estimating key emission sources and reduction opportunities, to leak surveys and measurements studies, to quantifying actual emissions. U.S. EPA has resources to develop estimated methane emission inventories, identify potential projects, perform pre-feasibility and feasibility studies, and conduct onsite measurement studies. U.S. EPA provides specific technical recommendations, including anticipated emissions reductions and full economic cost-benefit analyses. In cases where economic value of gas savings are low, U.S. EPA seeks opportunities to maximize economic return to the company (e.g., using natural gas to replace a more expensive fuel for electricity generation, identifying potential carbon market values of emission savings, etc.).

Partner Company Costs and Obligations

The first step of this collaboration is for interested oil and natural gas companies to join Natural Gas STAR International, which involves 1) signing a voluntary, one-page Memorandum of Understanding, 2) evaluating current and future voluntary activities that reduce methane emissions, and 3) reporting these activities, along with corresponding methane emission reductions, to U.S. EPA on an annual basis. Note that companies can report activities that they are already undertaking, as well as any new activities. Companies can participate at the level they choose, evaluating company-wide, site-specific or pilot projects.

For Natural Gas STAR partner companies, these resources and services are provided free of charge by U.S. EPA. While partner companies are in no way obligated to implement U.S. EPA's recommendations, project implementation feasibility and demonstrated company commitment to methane mitigation are key factors in determining the type of projects U.S. EPA supports.

Resource requirements of partner companies collaborating with U.S. EPA would include employee time dedicated to promoting the Program within the company, communicating with U.S. EPA to provide annual reports of emission reduction activities, and gathering and providing operational information necessary to conduct project analyses if the company chooses to do so.

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For all other oil and natural gas inquires related to Global Methane Initiative countries not listed here, please contact Carey Bylin.