



Methane to Markets



Overview: Methane to Markets Partnership and Resources for Natural Gas Companies

Seminar with Russian Independent Oil and Gas Producers on Methane Mitigation Technologies and Strategies

October 4, 2010, Moscow, Russia

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Background: Methane to Markets

- The **Methane to Markets Partnership (M2M)** is an international initiative that advances cost-effective, near-term methane recovery and use as a clean energy source in four sectors:



Oil and Gas Systems



Coal Mines



Landfills

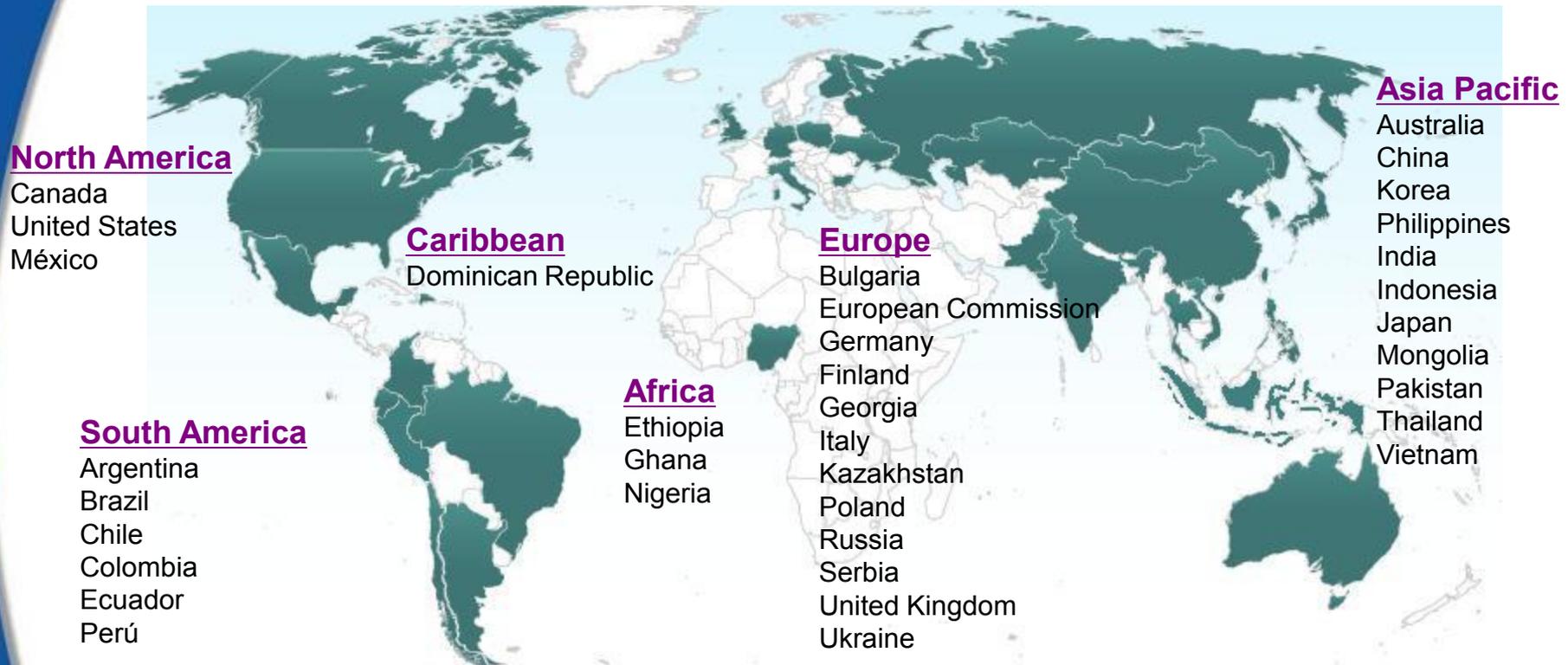


Agricultural Waste

- The goals of the Partnership are to reduce global methane emissions to:
 - Enhance economic growth
 - Improve air quality and industrial safety
 - Reduce emissions of greenhouse gases
 - Strengthen energy security

Methane to Markets Partner Governments

- Currently there are 35 Methane to Markets Partner Governments including the United States and Russia.



- Private companies, multilateral development banks and other relevant organizations participate by joining the **Project Network – over 900 organizations now participating**

Why focus on Methane

- Methane is the second most important greenhouse gas accounting for ~18% of total radiative (climate) forcing
- A primary component of natural gas and a valuable, clean-burning energy source
- Concentration of methane in the atmosphere has increased by 150% in the last 260 years
- Anthropogenic methane emissions are expected to rise 23% by 2020
- Methane reductions are critical and can be cost-effective

Methane Emissions from Oil and Gas Operations

- The majority of oil and gas methane emissions come from
 - Natural gas
 - Production
 - Processing
 - Transmission
 - Distribution
 - Oil production

- Methane emissions can be intentional or unintentional
 - Leaks
 - Process venting
 - System malfunctions



Background: Natural Gas STAR Program



- For over 15 years (since 1993), the U.S. EPA has worked with the U.S. oil and gas industry to promote proven, cost-effective, methane mitigation technologies and practices.
 - Collaborate with companies that produce, process, transmit and distribute natural gas to learn about innovative ways to reduce methane emissions;
 - Develop detailed technical information (currently on over 80 cost-effective mitigation options);
 - Facilitate the sharing of that information across the industry.
- In 2006, under Methane to Markets, EPA expanded the Program to include international operations



Oil and Gas Resources: Industry Wide

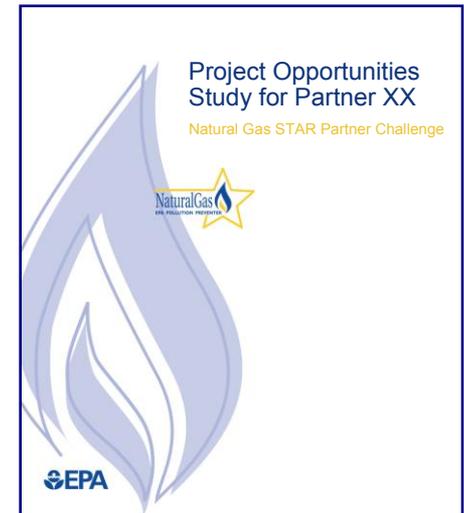
Resources to advance cost-effective oil & gas sector methane emission reductions:

- **General technology transfer, training, and capacity building:**
 - Technical documents and research outlining over 80 mitigation options, including analyses of economic, environmental and operational benefits, and
 - Workshops, conferences, and study tours
- All recommended technologies and practices are proven based on actual field implementation by partner companies.



Oil and Gas Resources: Company Specific

- **Individual technical assistance to help companies identify and assess cost-effective methane emission reduction opportunities**
 - Analysis of estimated methane emission sources and corresponding project opportunities
 - Pre-feasibility and feasibility studies
 - Leak detection and measurement studies



Contact Information

- **For more information, visit:**
 - www.methanetomarkets.org
 - <http://www.epa.gov/gasstar>
 - <http://www.epa.gov/gasstar/tools/recommended.html>

- **For further assistance, direct questions to:**

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