



CLIMATE AND CLEAN AIR COALITION
TO REDUCE SHORT-LIVED CLIMATE POLLUTANTS

CCAC Oil & Gas Methane Partnership

April 2015

Summary

- Starting point: Growing concern that methane emissions undermine net climate benefits of gas
- OGMP provides mechanism to help companies
 - Better understand their emissions
 - address emissions in a systematic manner
 - Demonstrate systematic approach to stakeholders
 - Provide high-level recognition of leadership

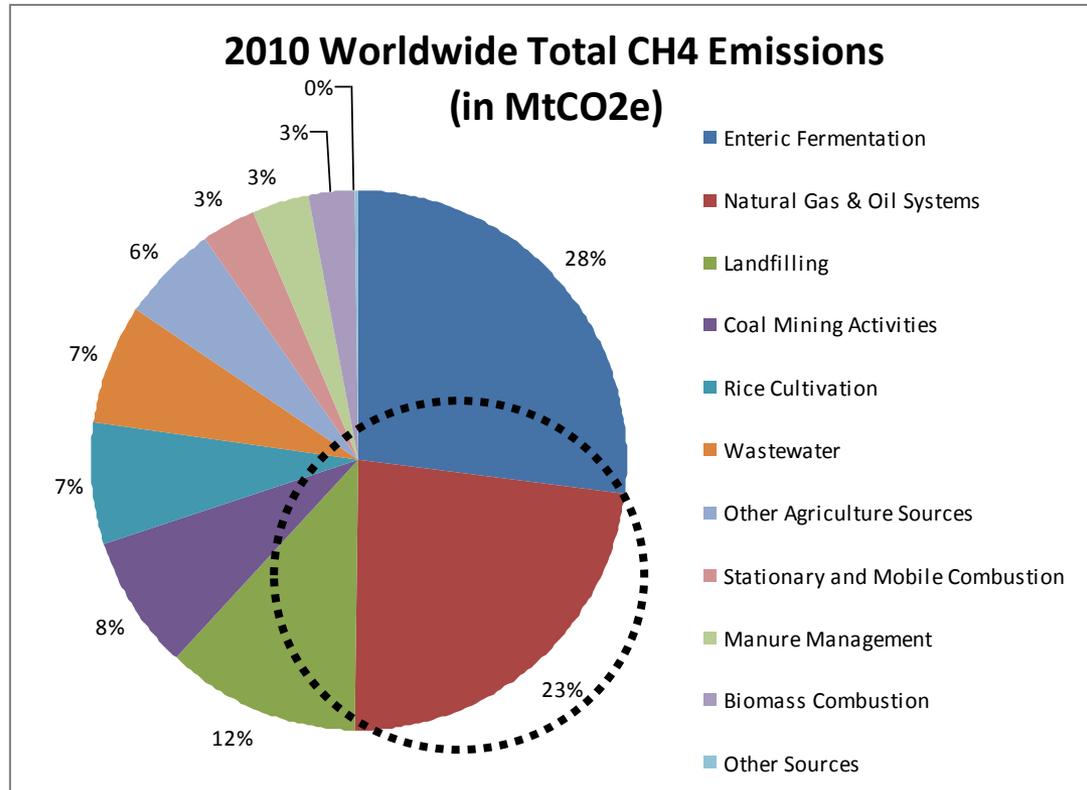


Climate and Clean Air Coalition

- OGMP one of several initiatives under CCAC
- High-level coalition founded Feb 2012
- Over 40 govts + inter-govt partners + NGOs
 - Incl. US, UK, Norway, France, Russia...
 - World Bank, UNEP, WHO, EDF
- Focus: short-lived climate pollutants
 - Minimising now > important impact in near term.

Methane

- 84 X more potent than CO₂ over 20-years
- Oil & gas sector largest human emitter after ag
- IEA: upstream methane emissions one of 4 key GHG opportunities in energy sector



CCAC Ministers Statement (January 25, 2013)

Signed by 13 CCAC Ministers:

- Australia
- Denmark
- France
- Italy
- Nigeria
- Norway (x2)
- Sweden (x2)
- United Kingdom
- United States (x2)
- UNEP

A mandate

Accelerating Cost-Effective Reductions of Short-Lived Climate Pollutants from Global Oil and Natural Gas Operations

As partners to the Climate and Clean Air Coalition,¹ we declare our support for substantially reducing venting, leakage, and flaring of natural gas from oil and gas operations worldwide, and invite oil and gas companies to join us in this effort.

While recognizing existing efforts, new impetus is today needed to accelerate action. It is estimated that over 8 percent of total worldwide natural gas production is lost annually to venting, leakage, and flaring. In addition to U.S. \$27 to \$63 billion in energy and economic losses, these activities result in nearly two gigatons of CO₂ equivalent of greenhouse gas emissions per year, over 80 percent of which are methane emissions – making oil and gas operations the second-largest source of global anthropogenic methane emissions behind agriculture. Flaring also releases substantial amounts of black carbon, which is particularly harmful to human health and areas like the Arctic.

These emissions can be readily and cost-effectively addressed with existing technologies and practices. In fact, a significant portion of leaked and vented methane can be reduced at zero net cost. Emerging technologies are also making it increasingly possible to profitably recover, rather than flare, the valuable light hydrocarbon liquids that are often found in flare streams and that contribute most significantly to black carbon emissions.

We are inviting oil and natural gas companies to work with the Climate and Clean Air Coalition to collaboratively design mechanisms and voluntary commitments to achieve substantial global methane and black carbon emission reductions. Such reductions would increase the volume of hydrocarbons going to productive use, improve operational efficiencies, and lead to substantial climate and health benefits.

We aim to help companies accelerate and expand voluntary emission reductions where there are cost-effective opportunities to do so, and to showcase progress by companies that are already taking significant action. This effort will build upon and scale-up the achievements of the Natural Gas STAR International Program, the Global Methane Initiative, and the Global Gas Flaring Reduction Partnership.

The Coalition stands ready to mobilize needed technical and policy capacity-building, and to provide forums and opportunities to recognize efforts by leading companies.

¹ The Coalition (www.unep.org/CCAC) was launched in February 2012 with the goal of working collaboratively with countries, companies, financial institutions, and others to accelerate major, near-term reductions of methane, black carbon, and hydrofluorocarbon (HFC) emissions. These short-lived pollutants are responsible for a substantial fraction of current global warming and extensive health and environmental impacts. Since February, the Coalition has grown to more than 50 partners, established a Science Advisory Panel to ensure efforts are guided by cutting-edge science, and launched multiple initiatives to quickly reduce these emissions worldwide.

How created

- Goal: To create a mechanism robust enough to meet needs of critics – and implementable by companies
- Developed w/ GMI, Natural Gas Star, GGFR colleagues
- Consultations in workshops and individually
 - oil & gas companies
 - NGOs, investor groups, reporting initiatives, governments
- Launched at UN Climate Summit, September 2014
 - 7 Partner companies: BG-Group, ENI, Pemex, Southwestern, Statoil, PTT, Total

Core sources

Technology Application Approach → 9 core emission sources*

- Natural gas driven pneumatic devices, pumps
- Centrifugal compressors with wet (oil) seals
- Glycol dehydrators
- Well venting of liquids unloading
- Casinghead gas venting
- Fugitive equipment and process leaks
- Reciprocating compressor rod seal/packing
- Hydrocarbon liquid storage tanks
- Well venting/flaring during well completion for hydraulically fractured wells

Identified through NGS experience and company consultations to account for large proportion of methane emissions upstream

Focus is on processes for gas already intended for use

Participating companies agree to survey and address these 9 core sources in their participating fields/assets

Summary of commitments (MoU)

- Implementation Plan after 6 months (confidential)
 - Participating assets, expected pace
- Survey (mapping) participating assets: 9 core sources
- For un-mitigated sources discovered
 - Calculation emissions (measure/estimate)
 - Evaluate cost-effective control options (ref. TGDs)
 - Implement control opportunities that are “feasible”
- Annual report to CCAC (confidential)
- Public company-specific report on CCAC website

Important features

- Provides up-front flexibility
 - Company decides operations participating
 - Company decides pace of implementation
 - Reporting – following first year
- Platform for learning
- Recognises prior actions
- Confidentiality
- Reporting format can evolve
- Any changes to OGMP are by consensus
- No membership fee

Provided by CCAC

- Technical support/capacity building in site surveys, emissions calculations, evaluating reduction opportunities (building on NGS)
- High-level opportunities for recognizing efforts
 - SG's Climate summit
 - Advocate with investor groups, NGOs and public

Next steps

- Task Forces formed, now working
 - Technical Guidance Documents
 - Reporting
 - Recruitment
- Expand Partnership among peers
- Create new standard in methane management



THANK YOU

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www.unep.org/ccac