

**Global Methane Initiative
Oil & Gas Subcommittee
12 May 2014**

FINAL MEETING NOTES

Summary of Key Discussions

Approximately 25 participants from oil and natural gas companies, service providers, academia, and non-governmental organizations attended the Global Methane Initiative (GMI) Oil & Gas Subcommittee Meeting. The meeting largely focused on GMI and sector-specific activities, the launch of the Climate and Clean Air Coalition (CCAC) Oil & Gas Methane Partnership and on-going discussion of member experiences while developing Nationally Appropriate Mitigation Actions (NAMAs). All the presenters and participants focused on the linkages between subcommittee work, advancing NAMAs development, and other complementary international initiatives and partnerships. The subcommittee collectively reviewed and adopted the Statement of Purpose. Lastly, as appropriate, participants provided a brief update on relevant activities in their company and/or country. The meeting attendees established the following main action item:

- The subcommittee adopted the Statement of Purpose provided that the “global warming potential” is changed from 28 to 25 and non-technical barriers are added as a focus.

The [final meeting agenda](#) and a list of [subcommittee meeting participants](#) are included as Annex I and II respectively. The subcommittee meeting agenda and proceedings of the meeting are posted on the GMI website.

Welcome Addresses and Adoption of Subcommittee Agenda

Mr. Javier Bocanegra with PEMEX opened the meeting by thanking everyone for attending. Mr. Joseph Odhiambo with Environment Canada then led a brief review of the meeting agenda and overall objectives. He asked attendees if there were any additions or modifications to the meeting agenda needed. There were none, so the agenda was formally adopted. This was followed by an introduction of meeting participants.

Update from the Administrative Support Group

Mr. Henry Ferland of the Administrative Support Group (ASG) [provided](#) an overview of the GMI ASG and updates on ASG activities. The ASG activities discussed included:

- Working on 10-year celebration (e.g., all Partnership meeting), with 2015 date and location to be determined.
- All-sector GMI video, which will also have coal, oil and gas, and biogas video modules that are more technical in nature.

- Infographic pamphlet about methane and GMI's role in reducing emissions that will be a visual description of GMI activities and accomplishments.
- GMI website updates
 - New map will show GMI projects worldwide.
 - Goal is to release map in next couple of months.
- Marketing the GMI brand through social media (e.g., Facebook, LinkedIn).
 - GMI posts ~10 articles/week about methane
- *Methane International* newsletter
 - Issued quarterly.
 - Goal is to help inform delegates and Partners.
 - Topics include:
 - New projects and activities.
 - Subcommittee updates.
 - Upcoming events.

Mr. Ferland encouraged attendees to share story ideas and information through ASG email address: asg@globalmethane.org.

Climate and Clean Air Coalition

Mr. Odhiambo opened the discussion by introducing Mr. David Turk of the United States Department of State. Mr. Turk gave a [presentation](#) that provided background on the recent launch of the Oil and Gas (O&G) Methane Partnership that is designed to allow participating companies to fully understand their emissions, make reduction commitments for (at least) core emission sources and be recognized for their leadership. He reported that the O&G Methane Partnership was developed hand-in-hand with GMI, Natural Gas Star and World Bank's Global Gas Flaring Reductions (GGFR) subject matter experts, and further, that the time is ripe for the O&G Methane Partnership as institutional investors are focusing on methane emissions from the sector. Companies can join by signing a memorandum of understanding and several companies are in the process of joining. CCAC is looking for other companies to become founding partners. Mr. Turk remarked that CCAC acknowledged challenges companies may have with respect to other reporting obligations and further hoped that reporting could be synchronized in time. A formal launch of the O&G Methane Partnership is expected at the United Nations Secretary General's Leadership Level September Climate Summit.

Several attendees expressed support for the CCAC, GMI, Natural Gas Star and World Bank's GGFR initiatives and the value in each initiative. Mr. Odhiambo wrapped up the discussion with a short presentation that provided background on Canada's CCAC participation and efforts related to Short-lived Climate Pollutants (SLCPs) that focuses on black carbon, methane and some HFCs. The CCAC value added proposition is in funding a Technology Demonstration and Evaluation Component which supports activities for measurement, mapping and monitoring, commercial deployment of emerging technologies, a portal to share information on policy and technical tools for emerging technologies, best practices and approaches and, public and private sector investment for scaled-up emission reductions.

CCAC is delivering real projects; reducing venting and flaring of methane VOC rich methane from oil and natural gas production by recovering readily condensable and valuable natural gas liquids. The results and outcomes are reported through existing forums such as GMI, the World Bank's GGFR and complementary industry workshops, conferences, meetings and webinars.

Finalizing Oil & Gas Statement of Purpose

Mr. Bocanegra presented/reported on collaborative efforts to support the development of the Statement of Purpose. It was recommended that the Statement of Purpose be adopted with the understanding that it could be modified in the future. Mr. Bocanegra recognized two comments. Specifically, the "global warming potential" should be changed from 28 to 25 and that non-technical barriers are added as a focus. There were no further comments, so the Statement of Purpose was adopted.

During this discussion, it was generally recognized that member countries not in attendance were making great strides to reduce emissions and promote GMI goals and objectives.

Recognizing Prijo Hutomo

Mr. Scott Bartos of the United States Environmental Protection Agency (U.S. EPA) recognized the efforts and achievements of Mr. Hutomo of STAR Energy. This special recognition was based on Mr. Hutomo's tireless support of Natural Gas STAR International and GMI objectives, outreach to peer companies and methane emission reductions achieved.

Nationally Appropriate Mitigation Actions Discussion

Mr. Odhiambo gave a presentation that was prepared jointly with Mr. Michael Layer of Natural Resources Canada. The presentation provided an overview of a NAMA and their engagement with Colombia and Mexico to support the development of an Oil and Gas NAMA. This facilitated "bottom up" approach will allow for successful development of credible projects, sustainable programs and/or supportive policy promulgation; this complements Canada's objectives for NAMA development in other sectors (housing, transportation, landfill, water, etc.).

Coming out of this experience, Ecopetrol and PEMEX are familiar with measurement equipment, methodologies, implementable emissions reduction technologies and practices, and service providers. Some next steps identified by Mr. Odhiambo include extrapolating results to identify and compare other sector specific emission reduction opportunities, enable development of projects to implement cost effective opportunities and evaluate the potential for additional revenue from these capital projects. Throughout the presentation, Mr. Odhiambo recognized the complementary benefits of NAMA development with respect to GMI.

Mr. Edgar Yañez of Ecopetrol and Mr. Bocanegra each commented on their collaboration with Canada and the overall benefit with respect to quantifying emission sources, identifying mitigation priorities, advancing the transfer of knowledge as well as using the information gained from this experience as a "business case" to inform corporate and governmental discussions. Mr. Ferland recognized their efforts to champion NAMAs.

Update on Sector Specific Strategies and Activities

Mr. Ferland invited participants to provide brief updates on sector-specific activities in support of the GMI strategic goals and charge to the subcommittee.

Ecopetrol

Mr. Yañez reported on behalf of Ecopetrol efforts to support GMI objectives. He reported that Colombia is collaborating with in-country companies to develop an emissions inventory. The inventory will inform the Ministry of Mines & Energy policy to energy management, information management (emissions), and energy efficiency.

Ecopetrol has a comprehensive greenhouse gas emissions inventory and has set an internal emissions reduction goal. To achieve their goal, Ecopetrol has identified (recovery and mitigation) projects to reduce carbon dioxide and methane emissions. Ecopetrol is touting their achievement internally and externally via corporate sustainability reporting.

India's Oil and Natural Gas Corporation Ltd.

Mr. Narain Lal of Oil and Natural Gas Corporation (ONGC) India gave a presentation on their efforts to support GMI. The presentation included an overview of their umbrella national plans and directives. ONGC continues to integrate emissions management as part of other activities (business planning, safety and technical).

STAR Energy

Mr. Hutomo reported on STAR Energy's GMI and GGFR involvement and efforts to reduce to achieve their emissions reduction goals. He noted that many US-based companies doing business in Indonesia are implementing technologies and practices that support GMI/Natural Gas STAR International goals but have not formally joined these efforts.

PEMEX

Mr. Bocanegra reported on PEMEX's collaboration with GMI and the identification of several new projects to manage emissions coming from storage tanks. PEMEX's efforts with GMI and Environment Canada all support Mexico's energy reform and further, position PEMEX strategically for an open, competitive market place.

Statoil

Mr. Geir Rortveit of Statoil reported that Statoil is a large offshore producer as a result has been focussing to reduce their emissions intensity per barrel. Statoil is bringing several new offshore fields on line. The new fields leverage all energy sources. Statoil continues to refine emissions factors and manage their methane emission via a multi-year leak detection and repair program (LDAR).

Saudi Aramco

Mr. Saeed Alalloush of the Ministry of Petroleum and Mineral Resources gave a [presentation](#) on efforts to reduce emission through a flaring mitigation program using real time monitoring, zero discharge technology at drilling and well work over sites and LDAR efforts utilizing the FLIR infrared camera. Saudi Aramco, the Kingdom's state owned oil company, has reduced flaring by 50% and as a result, has received a certificate of excellence from GGFR. It is their overarching goal to protect the environment and nurture the Kingdom's natural resources.

U.S. EPA

Mr. Scott Bartos of the U.S. EPA [presented](#) on the United States continuing outreach and promotional trips. Natural Gas STAR International Program is welcoming the following new partners: Odessagaz, Cairn India Ltd., Kuwait Oil Company and Surtigas S.A. U.S. EPA collaboration highlights include:

- ONGC - hosted the first all India Natural Gas STAR International workshop in 2013 with another workshop planned for later this year which shall be organized by Gail India and Cairn India.
- PTT - completed their first emission measurement study of onshore production and natural gas vehicle fueling assets in September 2013. A follow up study to include field training is planned for later this year.
- Kuwait Oil Company and Odessagaz - each conducting a desktop study for estimating emissions.
- Outreach activities:
 - GMI Outreach Kazakhstan Workshop with Carbon Limits - 2014
 - EPA and LEMIGAS will jointly conduct the 3rd Asia-Pacific GMI Oil & Gas Workshop – September 2014
 - Regional Workshop in the Middle East – September 2014

Russian Federation Chamber of Commerce

Mr. Leonid Tverdokhlebov of the Russian Federation (RF) Chamber of Commerce gave a presentation on their legislative and regulatory framework for emissions reductions in the RF. A key initiative for the RF is controlling and limiting flaring. The RF is looking at Canada's management of associated petroleum gas (APG) flaring/utilization for benchmark for their efforts to manage APG. The RF is also attempting to minimize losses from blow out wells on fire. At the conclusion of the presentation, the O&G delegate recognized the support of GMI and in particular, the support of Mr. Bartos and Mr. Donald Robinson of ICF International.

Next Oil and Gas Subcommittee Meeting

Mr. Ferland explained that the next in-person Oil and Gas Subcommittee meeting will likely be held in conjunction with the all Partnership meeting which will take place in 2015. In the meantime, he encouraged the subcommittee to meet via teleconference. The ASG will work with the Co-Chairs to set up a teleconference. Additional teleconference details will be forthcoming.

Summary of Action Items Discussed at this Meeting

The meeting attendees established the following action items:

- The subcommittee adopted the Statement of Purpose provided that the “global warming potential” is changed from 28 to 25 and that non-technical barriers are noted as a focus.

Mr. Bocanegra thanked everyone for their time and input and adjourned the meeting.

Annex I

Oil & Gas Subcommittee Meeting Agenda 12 May 2014

08:00 – 08:10 Welcome and Introductions

*Javier Bocanegra, (Mexico) Subcommittee Co-Chair and Joseph Odhiambo, (Canada)
Environment Canada*

- Brief introduction of meeting participants
- Review of meeting goals/adoption of agenda

08:10 – 08:40 Update from the Administrative Support Group (ASG)

Henry Ferland, ASG

- Upcoming Partnership-wide meeting
 - How can subcommittee support this meeting?
 - Ideas for general strategies to encourage attendance and participation in the meeting
 - Strategic communications for promoting meeting, as well as GMI in general (to include attendance at key conferences)
 - Linkages to other Partnership programs
- GMI 10-year Anniversary report/video

08:40 – 09:25 Climate and Clean Air Coalition (CCAC)

David Turk, U.S. Department of State

Update on launch of the CCAC Oil and Gas Methane Partnership which was developed through a year-long consultation with a variety of oil and gas companies, and several key CCAC partners. The Oil and Gas Partnership aims to work with participating companies to more fully understand and reduce companies' methane emissions. The Partnership will be launched in 2014.

09:25 – 09:45 Finalizing Oil & Gas Statement of Purpose

Javier Bocanegra, Subcommittee Co-Chair

The subcommittee statement of purpose is intended to provide additional guidance on future direction and work. Collectively, review and adopt the Statement of Purpose.

09:45 – 10:15 Break

10:15 – 11:15 Oil & Gas Sector Nationally Appropriate Mitigation Action (NAMA) Plan Development

Joseph Odhiambo, Environment Canada

Why NAMAs are important and how companies are using NAMAs to inform policy discussions and access the financial assistance that industrialized countries (including many GMI Partner Countries) have mobilized. All members are encouraged to share their experiences in support of NAMAs.

11:15 – 11:45 Update on Sector Specific Strategies and Activities

Javier Bocanegra, Subcommittee Co-Chair

Brief updates on sector-specific activities in support of GMI strategic goals and charge to the subcommittee. (Specifically, those activities not presented during the workshop- and Study Tour-related sessions.)

11:45 – 12:00 Discussion of Ongoing Subcommittee Business/Action Items for the Year

Javier Bocanegra, Subcommittee Co-Chair

Subcommittee Co-Chairs

- Specific tasks meeting participants agree to accomplish and report on by next meeting
- Possible agenda topics for the next subcommittee meeting; Partnership-wide meeting

12:00 Adjournment

Annex II Subcommittee Meeting Participants

Saeed	Alaloush	Ministry of Petroleum and Minerals Resources	saeed.alloush@aramco.com.sa
Esam Babatunde	Al-Sayid Anifowose	Ministry of Petroleum Coventry University	khalifemesam@yahoo.com ab2035@coventry.ac.uk
Scott Allison	Bartos Berkowitz	U.S. EPA ERG	bartos.scott@epa.gov allison.berkowitz@erg.com
Javier Henry	Bocanegra Ferland	Petróleos Mexicanos EPA	javier.bocanegra@pemex.com ferland.henry@epa.gov
Leonardo	Franco Sandoval	Ecopetrol	Leonardo.franco@ecopetrol.com.co
Martha Thomas	Herrera Hutchinson	Ecopetrol Kinder Morgan	martha.herrera@ecopetrol.com.co thomas_hutchins@kindermorgan.com
Prijo	Hutomo	STAR Energy	prijo.hutomo@starenergy.co.id
Narin	Lal	ONGC	34216@ongc.co.in
Casey	MacQueen	ERG	casey.macqueen@erg.com
Tarang	Mehta	ICF	tarang.mehta@icfi.com
Anastasia	Mishustina	ICF	Anastasia.Mishustina@icfi.com
Braden	Murphy	Atlantic Motor Labs, Inc.	bmurphy@motorlabs.ca
Julfrida	Nababan	VICO	julfrida.nababan@vico.co.id
Joseph	Odhiambo	Environment Canada	joseph.odhiambo@ec.gc.ca
Larry	Richards	Hy-Bon	jrogers@hy-bon.com
Donald	Robinson	ICF	donald.robinson@icfi.com
Geir	Rortveit	Statoil	gjr@statoil.com
Sudhir Kumar	Singh	ONGC	95606@ongc.co.in
Abhishek	Tripathi	ONGC	96499@ongc.co.in
Leonid	Tverdokhlebov	Chamber of Commerce	leonid@tverd.co
Inayat	Virani	Hy-Bon	jrogers@hy-bon.com
Edgar	Eduardo Yanez	Ecopetrol	edgar.yanez@ecopetrol.com.co