Global Methane Initiative Oil & Gas Subcommittee 10 December 2013 Teleconference

FINAL MEETING NOTES

Summary of Key Discussions

Approximately 23 participants from seven countries— Argentina, Canada, Colombia, Mexico, Norway, Russia, and United States attended the Global Methane Initiative (GMI) Oil & Gas Subcommittee Meeting. Attendees represented Partner Countries and Project Network members (e.g. oil and natural gas companies, service providers, academia, and non-governmental organizations).

The meeting largely focused on the Climate and Clean Air Coalition (CCAC) Oil & Gas Methane Partnership and member experiences developing Nationally Appropriate Mitigation Actions (NAMAs). The presenters and participants focused on the linkages between subcommittee work, advancing NAMAs development, and other relevant international initiatives and partnership. Member countries also provided a brief update on relevant activities in their country. The meeting attendees established the following main action items:

- The ASG and Subcommittee Co-Chairs are working to draft a Statement of Purpose. The draft will be circulated to all members for comment and discussion at the next meeting.
- The ASG is looking to develop a video and pamphlet to mark its 10th Anniversary and is seeking video footage that highlight GMI's accomplishments.

The <u>final meeting agenda</u> and a list of <u>subcommittee meeting participants</u> are included as Annex I and II respectively. The subcommittee meeting agenda and a recording of the meeting are posted on the <u>GMI website</u>.

Welcome Addresses and Adoption of Subcommittee Agenda

Mr. Henry Ferland with the Administrative Support Group (ASG) opened the meeting by thanking everyone for attending. Following the opening remarks, Mr. Michael Layer with Natural Resources led brief introductions of the meeting participants and reviewed the meeting agenda.

Update from the Administrative Support Group

Mr. Ferland provided an update on ASG activities. He noted that GMI conducted its third Expo in March 2013 in Vancouver, Canada. During discussions at the Expo, the GMI Steering Committee agreed to:

- Continue engagement with CCAC
- Continue to look at barriers and project implementation opportunities
- Organize the next opportunity to convene the global methane community
- Action Planning/Develop Country Action Plans

The Steering Committee adopted draft guidance for County Action Plans. The purpose of an action plan is to describe a country's current and future activities for methane reduction, help guide a country's climate strategy, communicate the country's goals and progress to the global community, and identify a country's needs and opportunities for methane reduction. ASG revised the action planning guidance in July 2013 and encourages all members to develop and/or update their action plans.

Mr. Ferland noted GMI will be celebrating the 10-year anniversary of its establishment in 2014. The ASG will be working to develop a video and pamphlet to highlight Initiative successes. In addition, there will be a partnership-wide meeting in October or November 2014. The ASG will announce the host site soon.

He also let everyone know that the ASG and Subcommittee Co-Chairs are working to develop a draft Statement of Purpose. The Statement of Purpose was drafted per the template developed by the Agriculture Sector. This will be circulated to all members for input after the first of the year. The Statement of Purpose will be discussed and finalized at the next meeting.

Next Oil and Gas Subcommittee Meeting

Mr. Ferland explained that the next Oil and Gas Subcommittee meeting will be held in conjunction with the Natural Gas STAR Annual Implementation Workshop, which will take place on 12 – 14 May 2014 at The Grand Hyatt in San Antonio, Texas. Mr. Ferland asked that agenda topics be sent via email to the ASG at asg@globalmethane.org. Additional meeting details are forthcoming.

Report on Climate and Clean Air Coalition

Ms. Carey Bylin of the United States Environmental Protection Agency (U.S. EPA) reported on the coalition recently launched by the United Nations Environment Programme (UNEP) to address short-lived climate pollutants including methane, black carbon, and hydro fluorocarbons. CCAC was launched in 2012 and there are currently 70 participating members of the coalition.

Ms. Bylin further reported on CCAC's Oil and Gas Methane Partnership that is designed to allow participating companies to fully understand their emissions, make reduction commitments for unmitigated sources and be recognized for their leadership. Working extensively with industry and complementary initiatives (GMI, Natural Gas STAR and the like), the framework for CCAC's O&G Methane Partnership is now final. CCAC is seeking participation commitments from their founding partners and expects to formally launch their O&G Methane Partnership in 2014. CCAC has an added level of structure/robustness as compared to the Natural Gas STAR, GMI or World Bank's Global Gas Flaring Reduction (GGFR) programs.

Nationally Appropriate Mitigation Actions Discussion

Mr. Layer presented/reported on their collaborative efforts with Colombia and Mexico to support the development of Oil and Gas NAMAs covering key upstream, midstream and downstream facilities. So far, the collaboration has spanned baseline activity determinations, quantification of emission reduction opportunities and business case development of significant "mitigation action" opportunities. This "bottom up" approach will allow for successful development of credible projects, sustainable programs and/or supportive policy promulgation; this complements the stated objectives for NAMA development. Some next steps identified by Mr. Layer include development of facility specific implementation plans, extrapolate (scale) facility results to draft a sector NAMAs and work with each country to register their NAMAs with the UNFCC.

Mr. Layer recognized the ongoing collaboration opportunities to advance NAMA development within the framework of GMI and CCAC. He further commented on the need to look for integration opportunities and functional relationships with all complementary programs.

Review of Oil and Gas Country-Specific Strategies and Activity Update

Mr. Ferland invited country delegates to provide brief country updates. Following the country updates, Mr. Layer invited other participants to report on their activities that support GMI strategic goals and charges to the Oil & Gas Subcommittee.

Canada

Mr. Layer reported on behalf of Canada. He commented on the success of the 2013 Methane Expo hosted by Canada in Vancouver. Its success is a great lead into the 10-year anniversary celebration and GMI Partnership-Wide meeting in 2014. Canada continues to collaborate with CCAC on methane and black carbon. The research portion of Natural Resource Canada is furthering its work with Carlton University to advance continuous sources emissions detection, quantification of black carbon and liquid recovery using micro condensation technology.

Mexico

Mr. Bocanegra reported on the status of their collaboration with Canada to develop NAMAs and to develop a set of action plans to reduce flaring in support of Mexico's emissions reductions target. Further, he reported that PEMEX continues to support the goal and objectives of GMI.

United States

Mr. Scott Bartos of the U.S. EPA reported on the United States continuing outreach and promotional trips to the Middle East, China, Indonesia, Uruguay, Russia and Ukraine, completion of the first field measurement campaigns with PTT (Thailand) and VICO (Indonesia), and developing implementation plan with GAIL (India). The Natural Gas STAR Program (domestic and international) hosted several Technology Transfer Workshops that focused on methane emissions reductions. Additional workshops are expected in 2014. Lastly, he reported that U.S. oil and gas partner companies reduced methane emissions by approximately 66 Bcf in 2012 and International partner companies reduced methane emissions by 7.6 Bcf in 2012.

Colombia

Mr. Eduardo Sanchez of the Colombia Ministry of Mines & Energy reported that his country is supportive of the GMI objectives. The Ministry is collaborating with in-country companies to develop their first policy plan to cover energy management, information management (emissions), and energy efficiency.

Russia

Mr. Leonid Tverdokhlebor of the Ministry of Natural Resources and Environment reported on behalf of Russia. He reported that Russia has recently passed regulations that encourage companies to reduce emissions. Further, he reported that Russia is collaborating with EPA and GMI and that GMI is serious in their pursuit of emissions reduction. He hopes that Russia will play an active role in the Partnership.

Following Mr. Tverdokhlebor's update, Project Network members were invited to report on their activities to support GMI. Mr. Paul Hoskins of John Crane inquired about the market opportunities for technological advances in replacing wet seals with dry seals in compressors. Ms. Bylin commented that this technology has been successfully implemented by PEMEX and Gazprom and further that, Gas STAR partners have reported success with the routing centrifugal compressor seal oil degassing emissions to fuel gas as an alternative to installing dry seals.

Mr. Layer remarked that we are on the verge of a step change with regard to this technology and that we need to maintain on-going research and document technological advances for continuing improvement.

Summary of Action Items Discussed at this Meeting

The meeting attendees established the following action items:

- The ASG and Subcommittee Co-Chairs are working to draft a Statement of Purpose.
 The draft will be circulated to all members for comment and discussion at the next meeting.
- The ASG is looking to develop a video and pamphlet to mark its 10th Anniversary and is seeking video footage that highlight GMI's accomplishments.

As appropriate, the ASG, U.S. EPA and the Co-Chairs will work with the subcommittee over the next few months.

The co-chairs thanked everyone for their time and input and adjourned the meeting.

Annex I

Oil & Gas Subcommittee Meeting Agenda

Teleconference

10 December 2013 at 16:00 — Subcommittee Meeting

Final Agenda

10 Minutes Welcome and Introductions

Javier Bocanegra (Mexico) and Michael Layer (Canada), Subcommittee Co-Chairs

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

30 Minutes Update from the Administrative Support Group (ASG) Update

Henry Ferland, ASG

The ASG will provide an update of the following:

- Outcomes from Vancouver
- Upcoming Subcommittee meeting in San Antonio, Texas and possible agenda topics for the meeting
- GMI 10-year Anniversary report/video
- Subcommittee statement of purpose to provide additional guidance on future direction and work

30 Minutes Climate and Clean Air Coalition (CCAC) Update

Carey Bylin, U.S.EPA

Update on launch of the CCAC Oil and Gas Initiative.

20 Minutes Nationally Appropriate Mitigation Action (NAMA)

Michael Layer, Subcommittee Co-Chair

We will discuss and seek participation from Subcommittee members on current NAMA-related activities (development and registration).

30 Minutes Review of Oil and Gas Country-Specific Strategies and Activity Update

Subcommittee Co-Chairs

Brief updates on sector-specific activities within each country in support of the GMI strategic goals and charge to the Subcommittee.

5 Minutes Adjournment

Annex II Subcommittee Meeting Participants

Scott Bartos U.S. EPA Allison Berkowitz ERG

JavierBocanegraPetróleos MexicanosBrianBoyerCOMM Engineering

Carey Bylin EPA Bruce Chisholm PPI Inc

JamesDiamondEnvironment CanadaAndrewEilU.S. Department of State

Henry Ferland EPA

Stephane Germain GHGSat Inc.

Sarah Greenberg ERG
Paul Hosking John Crane
Lauren Lariviere ERG

Michael Layer Natural Resources Canada

Anastasia Mishustina ICF

Giselle Moritan Secretariat of Energy

Magdalena Muir IEELS Naomi Neustadt ERG Geir Rortveit Statoil

Eduardo Sanchez Ministry of Mines & Energy

Monica Shimamura GMI Seth Snyder Argonne

Leonid Tverdokhlebor Ministry of Natural Resources

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