

**Global Methane Initiative  
Oil & Gas Subcommittee  
13 - 15 March 2013  
Vancouver, Canada**

**FINAL MEETING NOTES**

**Summary of Key Discussions**

Approximately 30 participants from six countries— Canada, China, Mexico, Norway, Sweden, United States, and Ukraine—and the European Union 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).

During the subcommittee portion of meeting, the attendees largely focused on linkages between subcommittee work and other relevant international initiatives and partnerships to include an update on Climate and Clean Air Coalition (CCAC). Member countries also provided a brief update on relevant activities in their country. The meeting attendees established the following main action items:

- Opportunities to support the European Union (EU) in the implementation of its Action Plan.
- The ASG is seeking thoughts on the next meeting location and platform (either face-to-face or webinar).

The [final meeting agenda](#) and a list of [subcommittee meeting participants](#) are included as Annex I and II respectively. The complete Methane Expo 2013 proceedings are available on the [GMI website](#).

**Technical and Policy Sessions**

The overall **Methane Expo 2013** event also included a site tour, technical breakout sessions, and demonstration of FLIR and OPGAL infrared cameras. The sessions addressed a variety of topics including:

- Corporate Experience in Addressing Methane Emissions
- Approaches to Methane Emission Detection and Measurement
- Panel Discussion on Collaborating with GMI to Identify and Measure Methane Emissions
- Best Practices for Capturing and Utilizing Methane Emissions in the Oil and Gas Industry
- Best Practices for Evaluating and Reducing Emissions from Oil and Associated Gas Production

The breakout sessions also included a policy-oriented presentation on British Columbia's policy framework and how to deliver emission reduction projects. In the technical and policy sessions, the presenters and participants discussed the importance of emission detection and measurement, accurate and verifiable emissions estimates, standardized and reproducible opportunities, implementation plans; leadership from international partnerships and finance brokers; capacity building; and delivering results in order to be credible.

### **Welcome Addresses and Adoption of Subcommittee Agenda**

Mr. Javier Bocanegra from Petroleos Mexicanos and Mr. Michael Layer with Natural Resources Canada opened the meeting by thanking everyone for attending. They recognized everyone for their efforts to travel to Vancouver and engage in the previous day's activities. Mr. Layer then led brief introductions of the meeting participants, review of the meeting goals, and adoption of the agenda.

### **Report on Climate and Clean Air Coalition (CCAC)**

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) and six countries on 16 February 2012 to address short-lived climate pollutants. CCAC's objectives are to address short lived climate pollutants by raising awareness of their impacts and mitigation opportunities; advancing country and regional specific actions; promoting and sharing best practices and successes; and improving the overall scientific understanding of short lived climate pollutants and mitigation opportunities. CCAC recognizes the progress being achieved under existing programs and seeks to accelerate and expand progress by serving as a convening agent and leveraging Ministerial-level support of the initiative.

In January of 2013, CCAC publically announced the launch of the CCAC Oil and Gas Initiative and issuance of a Ministers' Statement, signed by 13 CCAC Partner Ministers, indicating the need to focus on reducing venting, leakage, and flaring of natural gas from global oil and gas operations. Supported by Australia, Denmark, France, Italy, Nigeria, Norway, Sweden, US, UK, UNEP, and World Bank, the Oil and Gas Initiative seeks to 1) accelerate and expand global methane and black carbon emission reductions, building upon and scaling-up achievements of the Natural Gas STAR International Program, the Global Methane Initiative, and the Global Gas Flaring Reduction Partnership, and 2) showcase progress by companies in addressing short lived climate pollutants.

CCAC country representatives and oil and gas companies are currently working collaboratively to design a program that will accelerate and expand methane emission reductions from global oil and gas operations. The exact mechanisms are still to be finalized, but in order to expand on existing programs and add value with this new Initiative, some critical elements to the new program may include specific company-wide commitments to address methane emissions, and CEO-level engagement on the issue. Existing programs, such as GMI, will still be valuable and complementary in that they provide an opportunity for companies that are not ready to take on broader commitments to still undertake work to better understand and reduce their methane emissions.

Several meeting participants remarked on the importance and complementarities between the various voluntary programs and that no single program was all inclusive. It was suggested that CCAC and GMI maintain close communication and collaboration in order to leverage common engagement areas and collectively work to expand the issue of reducing methane emissions. Mr. Layer further recognized the importance of aligning GMI and its Oil & Gas Subcommittee synergies with other relevant programs (e.g., CCAC, World Bank's Global Gas Flaring Reduction [GGFR] public-private partnership), making GMI the "go-to" place for solutions.

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

Following the report on CCAC, Mr. Layer led the update from member countries. The update reports mainly focused on activities in support of the GMI strategic goals and charges to the Oil & Gas Subcommittee; specifically, those activities not presented during the Technical Sessions.

#### *Norway*

Representatives of Statoil reported on their companies' efforts to manage methane emissions and set emission reduction targets. Furthermore, Statoil discussed their no flaring and venting policy.

#### *Ukraine*

A representative of the Ukraine Ministry of Ecology and Natural Resources explained their efforts to exploit unconventional natural gas resources and plans to become a major player in the energy market.

#### *European Union*

Ms. Marion Wilde of the EU reported on their efforts to develop a new action plan covering environmental and safety considerations. The EU will update the subcommittee at future meetings, but suggested that GMI collaborate on the implementation of the plan. Mr. Layer offered GMI's support and encouraged everyone to collaborate as much as possible.

It is noted that several countries gave presentations that focused on activities in support of GMI strategic goals during the technical sessions, to include:

#### *Canada*

Various teaming partners of Natural Resources Canada presented/reported on their collaborative efforts. The presentations broadly covered greenhouse gas reductions via flaring and venting mitigation, approaches to estimating emissions, and flaring as a source of short lived climate forces.

#### *China*

Mr. Li Bo of the China National Offshore Oil Corporation presented on the efforts of their Energy Conservation & Pollution Reduction Monitoring Center or EPMC. The center was founded in December 2007 and is responsible for greenhouse gas monitoring, energy monitoring

and evaluation, energy efficiency, and environmental evaluations. The presentation included a case study overview of their gas re-injection storage technology implemented to reduce emissions, improve oil recovery, and increase operational efficiencies.

### *Colombia*

Mr. Jorge Sahica from Ecopetrol provided an update on activities with GMI and their strategic alignment with Ecopetrol's overall objectives to mitigate or eliminate emissions. (Follow the [link](#) to view Mr. Sahica's presentation.)

### *Indonesia*

Mr. Syifail Ramadhana a Field Engineer with Star Energy provided an update on the measurement studies conducted to date and the proposed process improvements identified as a result of these studies. Star Energy also reported on their support of various GMI and Natural Gas STAR workshops and efforts to co-host the Second Asia Pacific GMI workshop. (Follow the [link](#) to view his presentation.)

### *Thailand*

Mr. Pipit Hongjinda, Executive Vice President, Organization Effectiveness, from PTT (the Thai state-owned oil and gas company) provided an overview of their company and reported on their sustainability efforts. The company is the newest member of the Natural Gas STAR International program, which the US EPA administers as a contribution to GMI. (Follow the [link](#) to view Mr. Hongjinda's presentation.)

### *Mexico*

Mr. Bocanegra reported on the status of PEMEX's collaboration with GMI and anticipated next steps to include continuing capacity building on the use of measurement equipment, conducting field measurement campaigns using trained PEMEX staff, and advancing efforts with other relevant initiatives. (Follow the [link](#) to view his presentation.)

## **General Discussion of On-going Subcommittee Business/Action Items for the Year**

In the spirit of time, Mr. Layer asked everyone to share their thoughts and ideas for the next meeting via email to the Administrative Support Group (ASG) at [asg@globalmethane.org](mailto:asg@globalmethane.org). Following the GMI meeting, the U.S. EPA offered to host the next meeting. Specifically, the U.S. EPA is offering to hold the meeting in conjunction with the Natural Gas STAR Annual Implementation Workshop, which will take place fall 2013 in San Antonio, Texas. The workshop will feature an exhibitor area and facility tours highlighting methane emissions detection, measurement, and reduction methods.

## **Summary of Action Items Discussed at this Meeting**

The meeting attendees established the following action items:

- The Oil & Gas Subcommittee and Project Network members will look at opportunities to support the EU in the implementation of its Action Plan. This will be an agenda topic at the next meeting.
- Subcommittee and Project Network members should send the ASG thoughts on the next meeting location and platform (either face-to-face or webinar). Pending the response, the ASG will provide feedback to the Subcommittee members.

As appropriate, the ASG and U.S. EPA will work with the subcommittee over the next few months to complete these action items in anticipation of the next subcommittee meeting (to be announced).

The co-chairs thanked everyone for their contributions to the meeting and continued support to the GMI. The meeting was adjourned.

**Annex I**

**Oil & Gas Technical and Policy Sessions/Subcommittee Meeting Agenda**

**Wednesday, 13 March 2013**

**13:30 – 15:30 Corporate Experience in Addressing Methane Emissions**

**Reduction on Methane Emission - China National Offshore Oil in Action**  
*Li Bo, CNOOC*

**Implementing Innovative Pipeline Repair Methods in Ukraine to Avoid Methane Emissions from Venting**  
*Oleh Kostenko, Ukrtransgas*

15:30 – 16:00 Break

**16:00 – 18:00 Approaches to Methane Emissions Detection and Measurement**

**Advanced Mobile Technologies for the Identification, Attribution, Quantification, and Visualization of Fugitive Methane Emissions from Natural Gas Production**  
*Chris Rella, Picarro*

**Flaring as a Source of Short-Lived Climate Forcers: Field Measurements of Black Carbon Emissions using Sky-LOSA**  
*Matthew Johnson, Carleton University*

**A Novel Remote GHG Emission Monitoring System**  
*David Picard, Clearstone Engineering Ltd.*

**GHG Reductions Via Flaring & Venting Mitigation in Western Canada**  
*Matthew Johnson, Carleton University*

18:00 Adjournment

**Thursday, 14 March 2013**

**11:00 – 12:00 Panel Session: Collaborating with the Global Methane Initiative to Identify and Measure Oil and Gas Methane Emissions**

Panelists include representatives from the following organizations: *STAR Energy, Indonesia; Ecopetrol, Colombia; PEMEX, Mexico; and PTT, Thailand*

**12:00 – 12:30 Demonstration of the FLIR GF Series and OPGAL EyeCGas Infrared Cameras**

12:30 – 13:30 Lunch

**13:30 – 15:30 Best Practices for Capturing and Utilizing Methane Emissions in the Oil and Gas Industry**

**An Overview of PTAC's R&D Work on Reducing Methane Emissions, Recovery and Field Usage**

*Soheil Asgarpour, Petroleum Technology Alliance Canada*

**Best Practices for Reduction of Methane Emissions from Arctic Oil and Gas Production**

*Stephanie Saunier, Carbon Limits*

**Profitable Use of Vented Emissions in Gas and Oil Production**

*Howard Malm, REM Technology and Andrea Lamond, Encana*

15:30 – 16:00 Break

**16:00 – 17:30 Best Practices for Capturing and Utilizing Methane Emissions in the Oil and Gas Industry (cont.)**

**Management of Flashing Losses from Condensate Tanks at Compressor Stations**

*David Picard, Clearstone Engineering Ltd.*

**Gas-to-Liquid Technologies for Carbon Capture**

*Omar Hurtado, SNC-Lavalin Environment*

**Funding Methane Reduction Projects via Carbon Offset Credit Generation**

*Michael D'Antoni, Pacific Carbon Trust*

**17:30 – 18:30 Oil & Gas Subcommittee Meeting**

17:30 – 17:40 **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

17:40 – 17:55 **Climate and Clean Air Coalition (CCAC) Update**

*Carey Bylin, U.S. EPA*

- General update

17:55 – 18:25 **General Discussion of On-going Subcommittee Business/Action Items for the Year**

*Subcommittee Co-Chairs*

- Subcommittee goals and possible next steps
- Areas for subcommittee engagement
- Brief updates on sector-specific activities within each country in support of the GMI strategic goals and charge to the Subcommittee (Specifically, those activities not presented during the Technical Sessions)

**18:25 – 18:30 Summary of Action Items Discussed at this Meeting**

*Subcommittee Co-Chairs*

- Meeting action items
- Specific tasks meeting participants agree to accomplish and report on by next meeting
- Possible agenda topics for the next subcommittee meeting
- Confirmation of meeting location

18:30 Adjournment

**Friday, 15 March 2013**

**08:00 – 10:30 Best Practices for Evaluating and Reducing Emissions from Oil and Associated Gas Production**

*Moderated by Mauricio Rios, World Bank Global Gas Flaring Reduction (GGFR) Partnership*

**An Evaluation of Flare Gas Reduction Opportunities**

*Bent Svensson, World Bank GGFR Partnership*

**Estimating GHG emissions for Hydraulically-Fractured Wells in Western Canada**

*David Tyner, Carleton University*

**Evaluation of Casing Gas Recovery Options**

*David Picard, Clearstone Engineering Ltd.*

**Measurement of Emissions from Oil Storage Tank**

*David Picard, Clearstone Engineering Ltd.*

**Progress Toward a New Approach for Detecting and Quantifying Sources of Fugitive Emissions in Industrial Facilities**

*Matthew Johnson, Carleton University*



**Annex II**  
**Subcommittee Meeting Participants**

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