

GLOBAL METHANE INITIATIVE OIL & GAS SUBCOMMITTEE MEETING

Oil & Gas Subcommittee 23 March 2022 Virtual Meeting

MEETING SUMMARY

The Global Methane Initiative (GMI) Oil & Gas Subcommittee Meeting was held virtually on 23 March 2022. The meeting was led by Mr. James Diamond of Environment and Climate Change Canada (ECCC) and Co-Chair of the GMI Oil & Gas Subcommittee. Participants from 23 Partner Countries attended, including Argentina, Australia, Canada, China, Colombia, the European Commission, Germany, Ghana, Indonesia, Israel, Italy, Jordan, Kazakhstan, Mexico, Mongolia, Nigeria, Norway, Russia, Saudi Arabia, Turkey, the Ukraine, United Kingdom, and the United States. Participants from Belgium, the Czech Republic, the Netherlands, and Switzerland also attended. A list of the participants is provided in Annex I.

The purpose of the meeting was to provide members of the Subcommittee with news about GMI and updates on the activities of the Subcommittee, including the draft 2022-2025 Action Plan of the Oil & Gas Subcommittee, and to hear from Partner Countries about their recent methane mitigation work. The meeting was held in conjunction with the <u>United Nations Economic Commission for Europe</u> (<u>UNECE</u>) 9th Session of the Group of Experts on Gas. The featured PowerPoint presentation for the GMI Oil & Gas Subcommittee meeting is available on the GMI website. The agenda is included in Annex II.

Welcome and Adoption of the Agenda

Mr. James Diamond, GMI Oil & Gas Subcommittee Co-Chair, ECCC (Canada), opened the meeting by welcoming participants and reviewing the agenda. He introduced Scott Foster, Director of Sustainable Energy at UNECE. Mr. Foster highlighted the success of GMI and UNECE's long-term partnership and noted two opportunities for further collaboration: 1) elaborating on previously developed best practices guidance for monitoring, reporting, and verification and 2) bringing together other organizations working on methane to enhance efforts. Mr. Francisco de la Flor García, Chair of the UNECE Group of Experts on Gas, gave an overview of the agenda for the forthcoming UNECE 9th Session of the Group of Experts on Gas. He welcomed GMI Oil & Gas Subcommittee member participation in the event.

GMI Secretariat Update

Ms. Monica Shimamura, Director, GMI Secretariat (United States), provided an update about the activities of GMI, noting the recent re-chartering of GMI through May 2031. She highlighted recent GMI accomplishments such as hosting <u>A Call to Action on Methane</u> and the development of a new Steering Committee leadership model. She also highlighted Steering Committee priorities for 2022, such as the Global Methane Forum planned for October 2022, and noted GMI's support of the Global Methane Pledge.

<u>Oil & Gas Subcommittee Business – Action Plan, Partner Country Updates, Subcommittee</u> <u>Engagement</u>

Action Plan Update

Mr. Diamond (Canada) gave an overview of the Oil & Gas Subcommittee's efforts to develop an Action Plan for 2022-2025. He highlighted that the Subcommittee has been gathering information from Partner Country delegates over the last few years to better understand their needs and how GMI can contribute to addressing them. He noted that GMI does not have a mechanism to transfer funding directly, explaining that projects are implemented through bilateral or multilateral exercises represented through the GMI. He walked through the Action Plan's proposed objectives and associated activities. Mr. Diamond noted that he had shared the plan with Subcommittee delegates and considered their feedback. Finally, he confirmed that the Action Plan would be finalized by 31 March and publicly available on the GMI website.

Partner Country Updates

Oil & Gas Subcommittee delegates from six GMI Partner Countries gave updates on their recent efforts to mitigate methane in the oil and gas sector.

United States. Ms. Sarah Menassian, U.S. Environmental Protection Agency (EPA), gave an overview of activities that will support US commitments under the Global Methane Pledge and a brief status update on the country's national greenhouse gas inventory and reporting program. She noted that the U.S. also has voluntary programs through which EPA works to help oil and gas operators reduce their emissions. This summer, the domestic-based Natural Gas STAR <u>Methane Challenge Program</u> will publish data on voluntary actions taken in 2020 to reduce emissions. Ms. Menassian also highlighted several U.S. EPA resources of interest to the oil and gas community:

- Natural Gas STAR Recommended Technologies library. This resource contains information on top oil and gas methane emission sources and mitigation options based on decades of Natural Gas STAR Partner company experiences. The resource will soon be updated to a dynamic, searchable database. She invited participants to share case studies for the library by emailing gasstar@epa.gov.
- On-Demand Technical Trainings. In support of GMI, the U.S. EPA plans to develop on-demand technical trainings. Ms. Menassian invited participates to share feedback on topics of interest via email to menassian.sarah@epa.gov.

Canada. Ms. Diane De Kerckhove, ECCC, noted that methane reduction is essential to Canada's plan to reach net zero emissions by 2050. The country's oil and gas regulations aim to achieve a 40-45% reduction in emissions from 2021 levels by 2025. Canada more recently committed to reduce emissions by 75% from the oil and gas sector by 2030 and will be seeking stakeholder feedback to inform the design of these more stringent regulations. Canada signed the Global Methane Pledge and is developing a plan to reduce methane across all economic sectors. Ms. De Kerckhove also noted that forthcoming technical advances include the establishment of a center of excellence to share expertise in methane mitigation and publication of a new greenhouse gas (GHG) calculator tool for organic waste management. Canada is also contributing an additional \$10 million to the Climate and Clean Air Coalition (CCAC), as well as an additional \$2 million over the next few years to support methane reduction and capacity building projects in developing countries.

United Kingdom. Ms. Jane Durling, UK Environment Agency, gave a brief overview of the onshore oil and gas sector in England. She noted that UK Environment Agency is the main regulator of oil and gas

exploration and production sites in England. The sector came under scrutiny when the government supported exploration for shale gas from 2012 onwards; this exploration ended in November 2018. The exploration raised the profile of existing sites, where England has been focused on reducing methane. They have required operators to review gas management at sites as part of an improvement condition within permits. Operators must follow guidance that the UK Environment Agency produced or an equivalent approach to determine best available techniques for gas management. This is a requirement of industrial emissions directive of the European Union, whose principles England continues to follow. She highlighted the importance of liaising with regulators from other countries in regulatory work.

Turkey. Mr. Emre Özgür, Turkish Ministry of Energy and Natural Resources, gave a brief overview of the upstream petroleum sector of Turkey, including cubic meters of methane flared and vented and associated hotspots. He noted that while crude oil production is increasing, there is a decreasing trend in flared gas in Turkey's upstream petroleum sector because of utilization of gas as feedstock in new small power plants. He also noted that the methane emissions in Turkey are low due to the production level and characteristics of crude oil.

Indonesia. Ms. Chitra Ria Ariska, Ministry of Energy and Mineral Resources, noted that Indonesia is a signatory of the Global Methane Pledge. Ms. Ariska explained that fossil energy, particularly coal, dominates Indonesia's energy sector and renewable energy is still in its early stages in the country. Indonesia is focused on building a reliable GHG (including methane) database. Ms. Ariska noted that Indonesia is open to collaborating with international initiatives, including GMI and CCAC to achieve reductions. In the post-pandemic era, the energy sector will be important for boosting national development and supporting economic recovery. Indonesia acknowledges the need for strong international collaboration to meet their targets, with possibilities including building a national GHG monitoring network, capacity, and cooperative research initiatives.

Saudi Arabia. Mr. Hamoud AlOtaibi, Ministry of Energy, noted that methane management is central to climate work in Saudi Arabia. Saudi Arabia is a Global Methane Pledge signatory and will cooperate with other members to reduce emissions. Mr. AlOtaibi said that Saudi Arabia updated its Nationally Determined Contributions prior to COP26 with new actions aimed at reducing, avoiding, and removing GHG emissions by 278 million tons of CO₂ equivalent by 2030. He explained that Saudi Arabia is developing and implementing several policies and programs to address GHG emissions, including methane, at the national, regional, and global scale; for example, Saudi Arabia joined the Net Zero Producers Forum last year. Saudi Aramco is a member of the Oil & Gas Climate Initiative (OGCI) and has a flaring minimization program to monitor corporate flaring on a real-time basis, which allows the country to quantify emissions from methane flaring. Mr. Adel Ghamdi, Saudi Aramco, noted that these real-time flaring monitoring efforts have allowed them to deploy mitigation measures for higher combustion efficiency.

Enhancing Subcommittee Participation.

Mr. Diamond thanked the Partner Country delegates for providing updates. He encouraged delegates on the call to consider whether GMI could assist with any anticipated projects or efforts under the 2022-2025 Action Plan. Finally, Mr. Diamond also noted that the Subcommittee is seeking new Co-Chairs. Mr. Diamond introduced Ms. Lina María Castaño Luján to present on Colombia's recent efforts in the sector.

Advances in the Management of Fugitive Emissions in the Colombian Oil and Gas Sector - Lina María Castaño Luján

Ms. Lina María Castaño Luján gave an overview of Colombia's regulatory efforts in the oil and gas sector. Ms. Luján provided background on Colombia's actions on methane, noting that Colombia is highly vulnerable to the impacts of climate change. The presentation focused on Colombia's efforts as the first South American country to regulate methane from the oil and gas sector. In 2022, Colombia finalized a regulation by which technical requirements are established for the detection and repair of leaks, and the use, burning, and venting of natural gas during exploration and exploitation activities. The aim of these regulations is to reduce natural gas waste and contribute to climate change mitigation measures by reducing GHG emissions caused by leaks, burning, and venting. Next steps will focus on implementation of this national regulation.

The Global Methane Tracker 2022 - Tomás Bredariol

Mr. Tomás Bredariol introduced the International Energy Agency's (IEA) Global Methane Tracker and highlighted IEA's recent work on methane. Mr. Bredariol explained that the Global Methane Tracker provides a complete set of country-level estimates for methane emissions from the energy sector. He highlighted several insights on methane emission globally, including: 1) national inventories likely underreport methane emissions, 2) satellites are boosting transparency and understanding of emissions, and 3) significant reductions in global methane emissions from oil and gas operations are possible through implementing tried and tested policies. Mr. Bredariol also highlighted the importance of the Global Methane Pledge and the urgency of broadening this coalition, given that 43% of global methane emissions are from non-participating countries. He also mentioned two IEA reports that may be of interest to the Subcommittee: <u>Curtailing Methane Emissions from Fossil Fuel Operations</u> and the <u>Driving Down Methane Leaks from the Oil and Gas Industry: A Regulatory Roadmap and Toolkit</u>.

Global Methane Forum 2022

Mr. Diamond gave a brief overview of the Global Methane Forum planned for October 2022 in Washington, D.C. He shared tentative plans for the structure of the meeting and asked participants to send any suggestions for speakers and/or topics to the GMI Secretariat at secretariat@globalmethane.org.

Wrap Up and Next Steps

Mr. Diamond closed the meeting by thanking participants for joining. He emphasized that the IEA presentation demonstrated that ambitious reductions are possible with concerted international effort. He also confirmed that the Secretariat would prepare a meeting summary which will be made available on the GMI website. He thanked the participants, encouraged members to attend the UNECE Ninth Session of the Group of Experts on Gas, and adjourned the meeting.

ANNEX I

Meeting Participants

Name	Affiliation	Country
Abdurrahman, Abiodun	Nigerian Upstream Petroleum Regulatory Authority	Nigeria
Al Hourani, Ahmed	Synergy the Sustainability Lab	Jordan
Alexeyev, Evgeny	Aqueria Energy	Kazakhstan
Alghamdi, Adel	Saudi Aramco	Saudi Arabia
Ammon, Greg	Northern Natural Gas	United States
Anderson, Kevin	Azota Gas Processing	United States
Ariska, Chitra Ria	DGOG-MEMR	Indonesia
Bakane, Rohan	AECOM	United States
Barlow, Brenna	Radicle	Canada
Benjamin Caulfied Cornish, Oliver		United Kingdom
Bilgen, Barış	Turkey Ministry of Energy and Natural Resources	Turkey
Blackband, Jessica	Tetra Tech, Inc.	United States
Bobrov, Iurii	Association of Donbass Mining Towns	Ukraine
Borgulev, Miron	Rosatom State Atomic Energy Corporation	Russia
Burhan, Younus	Tetra Tech, Inc.	United States
Chikatamarla, Laxmi	LARA Energy Pty Ltd	Australia
Chisholm, Bruce	PPI Inc	Canada
Choi, Eric	GHGSat Inc.	Canada
Cook, Ronnie	SureFire	United States
Coomes, Brandon	Boardwalk Pipelines	United States
Cotier, Lucie	ENGIE Global Markets SAS	Belgium
De Kerckhove, Diane	Environment and Climate Change Canada	Canada
De la Flor García, Francisco	Enagas	Spain
De Oliveira Bredariol, Tomás	IEA	France
Devlin, Brendan	European Commission	Belgium
Diamond, James	Environment and Climate Change Canada	Canada
Dobler, Jeremy	Spectral Sensor Solutions	United States
Durling, Jane	Environment Agency	United Kingdom
Eichelman, Emma	Tetra Tech, Inc.	United States
Esparza, Ángel	GHGSat Inc	United States
Essandoh-Yeddu, Joseph	Ghana NDC Action Project, EPA	Ghana
Fermepin, Marcelo	Air Liquide E&C Global Solutions	Argentina
Fine, Christa	Iroquois Gas	United States
Foster, Scott	United Nations Economic Commission for Europe	Switzerland
Galsan, Surakhbayar	R&D Center for Climate Change and Sustainable Development	Mongolia
Gyasi, Aba Amissah	Tema Oil Refinery (TOR) Limited	Ghana
Hackworth, Matthew	Booz Allen Hamilton	United States

Name	Affiliation	Country
Harrower, Dougie	Tetra Tech, Inc.	United States
Harter, Sarah	Range Resources	United States
Hashem, Ali	Clean Development Mechanism Designated National Authority	Saudi Arabia
Herrera Zapata, Martha Yolanda	Ecopetrol S.A	Colombia
Herrera, Katherine	American Gas Association	United States
Hesselbarth, Thomas P	Energy Strategy Consultants	Switzerland
Hoerndl-Seestaller, Sylvia	EagleBurgmann	
Hoerning, Sebastian	The University of Queensland	Australia
Huppertz, Robert	Orbio	
Jančík, Jan	Ministry of Industry and Trade	Czech Republic
Jansen, Bjørn Ove	Equinor	Norway
Johnson, Kailyn N	Environmental Management and Safety	United States
Kapuga, Amy	Consumers Energy Company	United States
Kuhlmann, Sonja	EagleBurgmann	Germany
Lacey, Pam	American Gas Association	United States
Lapeña Martinez, Laura	Enagas	Spain
Lariviere, Lauren	ERG	United States
Latinovic, Smilja	Krieg & Fischer Ingenieure GmbH	Germany
Lewnard, Jack	DOE ARPA-E	United States
Luján, Lina Maria Castaño	Ministry of Mines and Energy	Colombia
MacKay, Katlyn	Environmental Defense Fund	Canada
Mantilla, Juan	UNAL	Colombia
Mascarenhas, Audrey	Questor Technology Inc.	Canada
McGirl, Cathy	Tetra Tech, Inc.	United States
Meluch, Andrew	U.S. Environmental Protection Agency	United States
Menassian, Sarah	U.S. Environmental Protection Agency	United States
Mercer, Sean	Imperial Oil Limited	Canada
Moreno Carrero, Carlos	Enagas	Spain
Mulholland, Denise	UN Economic Commission for Europe	Switzerland
Nickel, David	Boardwalk Pipelines	United States
Olczak, Maria	FSR	Italy
Otaibi, Hamoud R	Ministry of Energy	Saudi Arabia
Özgür, Emre	Ministry of Energy and Natural Resources	Turkey
Pocengal, Anthony	Solar Turbines	United States
Quaini, Adrian	PLUSPETROL	Argentina
Raji, Kabiru F.	Nigerian National Petroleum Corporation	Nigeria
Reyes, Abel Clemente	Asociación Mexicana de Biomasa y Biogás, A.C.	Mexico
Risk, Dave	St. Francis Xavier University	Canada
Rivera, Andres	Kairos Aerospace	United States
Roshchanka, Volha	U.S. Environmental Protection Agency	United States
Ruiz, Felicia	Clean Air Task Force	United States

Name	Affiliation	Country
Samambayeva, Anara	EY	Kazakhstan
Sandy, Paul	Diversified Energy	United States
Schwarz-Schutte, Leopold	Orbio	Germany
Seymour, Scott	Environmental Defense Fund	United States
Shimamura, Monica	U.S. Environmental Protection Agency	United States
Smith, Leslie	Eastern Research Group	United States
Smith, Sean	Environment and Climate Change Canada	Canada
Sofrony, Jorge	Universidad Nacional de Colombia	Colombia
Stimatz, Beth	NorthWestern Energy	United States
Suardana, Putu	DGOG-MEMR	Indonesia
Torres, Andrés Guevara	Universidad Técnica de Ambato	Ecuador
Tuskin, Jeffrey	Montrose Environmental	United States
Wach, Grant	Dalhouise University Basin and Reservoir Lab	Canada
Wayner, Mark	Range Resources - Appalachia, LLC	United States
Wehnert, Paul	Heath Consultants Incorporated	United States
Xue, Ming	CNPC Research Institute of Safety and Environmental Technology	China
Ziegler, Robert	European Commission Joint Research Center	Belgium

ANNEX II

GMI Oil & Gas Subcommittee 23 March 2022

Virtual Meeting 8:00 - 10:00 am EDT

AGENDA

8:00 – 8:10 am	Welcome and Opening of the Meeting; Adoption of the Agenda Preview of UNECE Ninth Session of the Group of Experts on Gas James Diamond, Co-Chair, Oil & Gas Subcommittee, ECCC Scott Foster, UNECE Francisco de la Flor García, UNECE Group of Experts on Gas
8:10 am – 8:15 am	GMI Secretariat Update Monica Shimamura, Director, GMI Secretariat
8:15 am – 9:10 am	Oil & Gas Subcommittee Business (Action Plan, Partner Country Updates, and Enhancing Subcommittee Participation)
9:10 am – 9:30 am	Advances in the Management of Fugitive Emissions in the Oil & Gas Sector of Colombia Lina María Castaño Luján, Colombia Ministry of Mines and Energy
9:30 am – 9:40 am	IEA Methane Tracker Update Tomás Bredariol, International Energy Agency (IEA)
9:40 am – 9:55 am	Planning for the Global Methane Forum 2022 James Diamond
9:55 am – 10:00 am	Wrap-Up and Next Steps James Diamond
10:00 am	Adjourn