

Coal Mines Subcommittee  
23 July 2020  
Virtual Meeting

## **MEETING MINUTES**

### **Introduction**

The Global Methane Initiative (GMI) held its 29<sup>th</sup> Coal Mines Subcommittee meeting virtually on 23 July 2020. The meeting featured a panel discussion on the “Challenges and Opportunities for Capture and Use of Coal Mine Methane (CMM) in the COVID-19 World” and was held jointly with the unofficial [online meeting](#) of the 15<sup>th</sup> Session of the United Nations Economic Commission for Europe’s (UNECE) Group of Experts on Coal Mine Methane (GoE-CMM) from 22-23 July 2020.

### **15<sup>th</sup> Session of the UNECE GoE-CMM**

Discussions during the online meeting of the UNECE GoE-CMM primarily focused on the future of the Group. Observing that 80% of today’s primary energy is fossil-based and that the majority of the world’s population and national economies depend on fossil energy, the Group underlined the importance of maintaining a debate on the social, environmental, and economic aspects of fossil fuel usage. The Group confirmed its strong support for the efforts underway by UNECE and GMI to develop a resolution for the United Nations General Assembly for the declaration of a UN International Year or Decade of Methane Management. The Group also agreed to further explore the proposal made by the European Commission to jointly develop best practices on: (1) monitoring, reporting, and verifying methane emissions from the coal sector at the facility level, (2) monitoring methane emissions from surface mines, and (3) mine closures. Since the session was unofficial, the decisions and recommendations will be discussed and approved at the official 15<sup>th</sup> session of the Group that is scheduled to take place on 22-25 September 2020.

### **29<sup>th</sup> GMI Coal Mines Subcommittee Meeting**

The 29<sup>th</sup> meeting of the GMI Coal Mines Subcommittee meeting was attended by more than 70 participants (see Annex 1) and was held virtually from 11:30 to 13:00 UTC on 23 July. The meeting was opened by Mr. Raymond Pilcher, Chair of the UNECE GoE-CMM, and was followed by welcoming remarks by the GMI Coal Mines Subcommittee Co-Chairs, including Ms. Volha Roshchanka (United States), Mr. Rajiw Lochan (India, acting for Mr. Shekhar Saran), and Mr. Huang Shengchu (China). Ms. Roshchanka then provided introductory remarks followed by a review and approval of the meeting agenda (see Annex II).

All presentations and the meeting agenda can be found on the GMI website at [https://globalmethane.org/news-events/event\\_detailsbyID.aspx?eventid=547](https://globalmethane.org/news-events/event_detailsbyID.aspx?eventid=547).

### **GMI Secretariat News and Updates**

Following the opening remarks, Mr. Steve Michener, Project Manager, Tetra Tech, presented news and updates of the GMI Secretariat on behalf of Ms. Monica Shimamura, Director, GMI Secretariat. Many of the Secretariat’s recent activities have focused on the establishment of an Executive Task Force, which was formed in response to the postponement of the Global Methane Forum 2020 to gather input about the future of GMI and to facilitate discussion and decision-making. An invitation to participate in the Executive Task Force was extended to all of the GMI Subcommittee and Project Network members in an effort to engage a broad cross-section of the GMI community. The overall goal was to get feedback and recommendations on several key questions, such as:

- What objectives should GMI aim to achieve in the next 5 to 10 years?
- How long should the GMI charter, which expires in April 2021, be extended?
- How can GMI leverage the work of other international organizations, such as UNECE and the Climate and Clean Air Coalition?

The Executive Task Force included approximately 30 to 35 members representing all of the GMI Subcommittees. A series of five virtual meetings were held between May and July 2020, and the task force gathered valuable input on the future of GMI. Participants also discussed the impact of COVID-19 on methane mitigation projects and proposed suggestions for how GMI can advocate for methane mitigation as part of the global economic recovery process. With the completion of the five virtual meetings, the next step is to compile the recommendations from the calls and provide them to the GMI Steering Committee at a virtual meeting to be held in the fall of 2020.

Mr. Michener outlined the Secretariat's priorities for 2020, which include:

- Strengthening relationships with Partner organizations
- Enhancing the GMI website
- Promoting new tools and resources
- Spotlighting successful methane mitigation stories

Mr. Michener also noted that the Executive Task force discussed recommendations for improving GMI's Global Methane Challenge. The Challenge has had great overall support with 79 methane mitigation stories submitted to date from 23 countries, including 8 stories specific to the coal sector. He also informed the group that the [Global Methane Challenge](#) is still open and that submissions are encouraged, and that the Executive Task Force had recommended that the Challenge be extended beyond its original end date of December 2020.

### **Coal Mines Subcommittee Report**

Ms. Roshchanka presented the 2020 Coal Mines Subcommittee report to the participants, during which she provided an overview of the CMM Project Development online training course that is under development. The course introduces principles for assessing the feasibility of developing projects to capture and/or use CMM. Two modules have already been developed and are available on the [GMI website](#), with the remaining six modules expected to be released later in 2020. Ms. Roshchanka also discussed:

- 19th International CBM/CMM Symposium that was hosted by the China Coal Information Institute in December 2019. The event was attended by more than 150 participants and provided an excellent forum for exchange of CMM development lessons learned and best practices in CMM capture and use.
- EPA's participation in a study tour organized by the Yangquan Coal Group in the Shanxi Province, China to see its Ventilation Air Methane (VAM)-to-Power project at Mine #2 as well as a nearby CMM project.
- "Global Methane Emissions from Coal Mining to Continue Growing Even with Declining Coal Production" paper, co-authored by EPA in collaboration with the GMI and several other organizations, that presents projections of global methane emissions from coal mining under different coal extraction scenarios and with increasing mining depth through 2100.
- Update on the India Coalbed Methane (CBM)/CMM Clearinghouse that is facilitating the development of CBM and CMM projects in India, knowledge sharing, and student training. A CMM drainage project is planned for the recovery of methane from coal seams at the Moonidih UG Mine to enhance mine safety, utilization of recovered methane gas, and coal production.
- India CBM/CMM Clearinghouse's international workshop on "Optimum Utilization of CBM/CMM in India" that was conducted on 24 – 25 April 2019 in Ranchi, India.

### **Panel Discussion**

Mr. Clark Talkington, Vice President, Advanced Resources International, moderated the panel discussion, "Challenges and Opportunities for Capture and Use of CMM in the COVID-19 World." He began the session by

noting that COVID-19 has had significant impacts on the coal industries in many countries including China, India, Poland, and the United States. The mining industry globally has experienced supply chain disruptions and seen decreased demand for coal, and these wide-ranging impacts have led to mines idling and even potential mine closures in some cases. The following panelists provided updates on the impacts of COVID-19 on CMM projects in their countries:

- China – Selina Huang, Research Fellow and Project Manager, China National Coal Group Corporation
  - China is the largest coal producing country in the world, with an annual coal output of 3.75 billion tons in 2019.
  - Chinese government policies are encouraging coal mining companies and developers to recover and use methane from active coal mines and abandoned coal mines.
  - COVID-19's impact on national and regional CMM and abandoned mine methane (AMM) emissions is that methane emissions have decreased as coal production has decreased (or production has been suspended) from February to May 2020.
  - COVID-19's impact on CMM projects includes temporary mine closures or production stoppages in many provinces (and many projects are being postponed).
  - There are still good opportunities for new CMM and AMM projects due to encouraging policies in China.
- India – Rajiw Lochan, General Manager, Central Mine Planning & Design Institute (CMPDI)
  - Coal India Ltd (CIL) currently operates 352 coal mines.
  - CIL's coal offtake hit a 7-month low in April 2020 due to India's nationwide COVID-19 lockdown, and coal production hit a 6-month low during the lockdown.
  - The coal industry in India has been affected by COVID-19, but CIL is taking precautions and safety measures to ensure uninterrupted coal production.
  - New CMM/CBM development projects in CIL areas have been initiated by CMPDI and CIL's subsidiary production companies.
- United States – Michael Coté, President, Ruby Canyon Engineering
  - The number of operational underground coal mines in the United States was 236 as of 2018, and production has declined since 2017.
  - Due to reduced demand for electricity and exports as a result of COVID-19, the U.S. Energy Information Administration expects coal production to decrease by 29% in 2020 and rebound by 7% in 2021.
  - Any change in 2020 CMM emissions depends on activities at a limited number of mines, since approximately half of all U.S. CMM emissions comes from just 10 mines.
  - AMM emissions are expected to remain the same, although they could increase in the short term as the number of abandoned mines increases.
  - The future of CMM projects in the United States is driven by Appalachian coal mines.
  - AMM projects may be less affected by COVID-19, but could face delays in supply chains, the procurement of equipment and parts, and permitting.
- Poland – Jacek Skiba, Chief Specialist, Central Mining Institute of Katowice
  - Poland is conducting CMM-related projects, including a new project to develop a system to eliminate or minimize undesired and unplanned production stoppages due to increased gas emissions at coal faces through the use of an integrated production process, environmental monitoring, and control systems.
  - An advanced methane drainage strategy is being implemented at another project that uses an underground directional drilling technology for major risk prevention and mitigation of greenhouse gas emissions.
  - Projects in Poland have experienced an impact from COVID-19 as there is decreased demand for coal and related supply chain disruptions.

The panelists noted that there is still much unknown about the near- and long-term impacts of COVID-19 on CMM and AMM emissions and emission reduction projects. With mine production slowing, methane emissions from active coal mines are believed to be decreasing in 2020 compared to 2019, but this is mostly anecdotal as emissions data is generally not yet available. As mines restart and ramp up production, emissions are expected to increase. Project development of CMM projects may slow and financing may be more difficult to secure as project risk increases with uncertainty in the mining sector and in commodity pricing, whereas developers and investors may be more attracted to AMM projects which are not dependent on mining operations.

Following the panel discussion, an interactive poll was conducted to solicit input from meeting participants about how COVID-19 has impacted their countries. Below is a summary of the responses that were received:

<b>Has COVID-19 Affected CMM or AMM Projects in Your Country?</b>	
<b>Option</b>	<b>Number of Responses</b>
No, projects have not been affected.	4
Yes, existing projects are not able to operate as planned.	5
Yes, new projects have not been initiated as planned.	4
Not applicable.	4
<b>TOTAL</b>	<b>17</b>

<b>How Have Projects in Your Country Been Impacted?</b>	
<b>Option</b>	<b>Number of Responses</b>
Energy market prices	6
Equipment supply	6
Equipment operations & maintenance	5
Coordination/cooperation with mine owner/operator	5
Gas availability	4
Carbon market prices	3
Staffing	3
Other	4
<b>TOTAL</b>	<b>36</b>

<b>What Opportunities Do You See to Increase and Enhance CMM Mitigation in Your Country at this Time?</b>
<b>Response*</b>
The state energy administration is encouraging CMM and AMM projects.
Even though the coal industry is challenged, some new gassy mines are in planning or development. Opportunity to implement projects at start. Also AMM potential.
Potentially stricter emissions standards.
More CMM Drainage Projects to undertake in Mines. CMM Recovery Prior to Coal Mining.
Opportunities include making CMM capture and use part of the economic recovery projects from the government. There is a Safety Board of Inquiry ongoing after a recent underground methane gas explosion, which may have some opportunities.
<i>*Responses were received from the following participant countries: Australia, China, India, and the United States.</i>

### Close of the GMI Coal Mines Subcommittee meeting

Ms. Roshchanka provided closing remarks on behalf of GMI, and noted that upcoming Coal Mines Subcommittee activities included:

- Preparing remaining modules of the online CMM training course and other updated tools and resources.
- Encouraging partners to share information on existing or new CMM projects.
- Participating in conversations to discuss options for re-chartering GMI past April 2021.

She also encouraged participants to share details about upcoming meetings or to provide suggestions on potential future Coal Mines Subcommittee meeting topics. The GMI Coal Mines Subcommittee meeting was then officially closed by Mr. Pilcher.

## ANNEX I

### GMI Coal Mines Subcommittee Meeting Participants

Name	Organization
Clemens Backhaus	A-TEC Anlagentechnik GmbH
Vikrant Badve	
David Bonson-Hesener	
Patrick Booth	MeCee Solutions and University of Wollongong
Magdalena Chawula-Kos	World Bank
Michael Coté	Ruby Canyon Engineering
David Creedy	Sindicatum Sustainable Resources
Anwesa Das	Central Mine Planning and Design Institute
Ray Desjardins	Agriculture and Agri-Food Canada
Joe Donahue	Abt
Michal Drabik	UNECE
Ayman El-Maazawy	
Mohamed Farkouk Hussein	Egyptian Environmental Affairs Agency
Bobbie Foot	BHP
Beau Garrett	
Grace Howland	Environment and Climate Change Canada
Selina Huang	China National Coal Group Corp.
Shengchu Huang	China Coal Strategies Research Center
Lucas Janssen	RTD
Beau Jia	
Cevat Karacan	U.S. Geological Survey
Volodymyr Kasianov	Eco-Alliance, LLC
Piote Kasza	
Wael Keshk	
Phil Kong	Advanced Resources International
Clive Latcham	Advisor to Mining Industry
Alan Lau	Anglo Euro Developers
Rajiw Lochan	Central Mine Planning and Design Institute
Jason Massel	Environment and Climate Change Canada
Cathy McGirl	Tetra Tech
Raj Kumar Meena	Central Mine Planning and Design Institute
Christopher Messerich	Advanced Resources International
Steve Michener	Tetra Tech
Stefan Moellerherm	Technische Hochschule Georg Agricola
Dariusz Obracaj	AGH University of Science and Technology
Mnec Ochirsukh	
Mario Peiro	WMO
Ray Pilcher	UNECE
Burke Plater	
Icemr Ras	
Brian Ricketts	EURACOAL aisbl

Name	Organization
Volha Roshchanka	U.S Environmental Protection Agency
Mohamed Saad	Ministry of Industry and Infrastructure Development
Daulet Sagzhanov	Central Mine Planning and Design Institute
Shekhar Saran	Resource Enterprises
Jeff Schwoebel	The University of Queensland
Mogaleadi Seabela	Gulf Coast Environmental Systems
Victor Sepulveda	U.S Environmental Protection Agency
Corina Sheridan	Central Mining Institute of Katowice
Monica Shimamura	IEA Clean Coal Center
Jason Shure	Advanced Resources International
Jacek Skiba	Central Mine Planning and Design Institute
Lesley Sloss	Tetra Tech
Noah Sprent	Aum Energy
Justyna Swolkien	Central Mine Planning and Design Institute
Soha Taher	Dalhousie University
Clark Talkington	Central Mine Planning and Design Institute
Vaibhav Thakre	Shanxi Coking Coal Group
Sam Tremaine	
Rohit Vedhara	
Anubhav Verma	
Grant Wach	
Shuang Xu	
Ravi Shankar Yadav	
Jin Zhixin	

## ANNEX II

### GMI Coal Mines Subcommittee Meeting Agenda 23 July 2020

11:30-11:35 UTC (view <a href="#">other time zone information</a> )	<b>Welcome, Tips for Using Teams Platform, and Review of Agenda</b> <ul style="list-style-type: none"><li>• <i>Mr. Raymond Pilcher, Chair, UNECE Group of Experts on CMM</i></li><li>• <i>Subcommittee Co-Chairs</i><ul style="list-style-type: none"><li>• <i>Mr. Rajiw Lochan (India, acting for Mr. Shekhar Saran)</i></li><li>• <i>Ms. Volha Roshchanka (United States)</i></li><li>• <i>Mr. Huang Shengchu (China)</i></li></ul></li></ul>
11:35-11:40 UTC	<b>GMI Secretariat Updates</b> <ul style="list-style-type: none"><li>• <i>GMI Secretariat</i><ul style="list-style-type: none"><li>• <i>Mr. Steve Michener, Tetra Tech on behalf of Monica Shimamura, Director, GMI Secretariat</i></li></ul></li></ul>
11:40-11:50 UTC	<b>Report on Subcommittee Activities</b> <ul style="list-style-type: none"><li>• <i>Ms. Volha Roshchanka,</i></li></ul>
11:50-12:50 UTC	<b>Panel Discussion: Challenges and Opportunities for Capture and Use of Coal Mine Methane in the COVID-19 World</b> <i>Moderator: Mr. Clark Talkington, Advanced Resources International</i>  <i>Panelists:</i> <ul style="list-style-type: none"><li>• <i>Ms. Selina Huang, Project Manager, China National Coal Group Corporation (China)</i></li><li>• <i>Mr. Rajiw Lochan, General Manager, Central Mine Planning and Design Institute, Coal India Ltd (India)</i></li><li>• <i>Mr. Michael Coté, President, Ruby Canyon Engineering (United States)</i></li><li>• <i>Mr. Jacek Skiba, Chief Specialist, Central Mining Institute of Katowice (Poland)</i></li></ul>
12:50-13:00 UTC	<b>Summary of Action Items and Adjourn</b> <ul style="list-style-type: none"><li>• <i>Subcommittee Co-Chairs</i></li><li>• <i>Mr. Raymond Pilcher, Chair, UNECE Group of Experts on CMM</i></li></ul>