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Approval of documents

Work Plan of the Group of Experts on Coal Mine Methane for 2022-2023

Prepared by the Group of Experts on Coal Mine Methane

I. Introduction

1. The mandate of the Group of Experts on Coal Mine Methane and Just Transition[1] (the Group of Experts) is to promote efficient transition of industries along the coal value chain ensuring the reduction of associated greenhouse gas (GHG) emissions and social equity of the process through substantive, results-oriented activities that may help the recovery and use of methane in order to reduce the risks of explosions in coal mines; mitigate climate change; and support sustainable development, and that may support communities, local economies and the environment in the just transition process.

2. The areas of work of the Group of Experts are:

(a) Recovery and use of methane from active, closed, and/or abandoned coal mines aimed at reducing the risks of explosions, mitigating climate change, and supporting sustainable development;

(b) For those countries or regions/states that choose to cease coal mining and related activities, offering support on request on preparation of coal mines and coal mining regions and communities for mine closure and reorientation of the local economies;

(c) Repurposing of mines and existing mining infrastructure and facilitating development of new profiles of economic activity and business models that preserve social cohesion and cultural heritage of the affected localities.

3. The Group of Experts requests the Committee on Sustainable Energy to renew its mandate until 31 December 2023, with the possibility of extension.

[1] The name of the Group of Experts indicated is the revised name recommended by the Group of Experts at its sixteenth session. Paragraphs 1 and 2 refer to the revised mandate and Terms of Reference recommended by the Group of Experts at its sixteenth session. All recommendations are subject to the approval of the Committee on Sustainable Energy and endorsement of the Executive Committee of the United Nations Economic Commission for Europe.

II. Substantive activities in 2022-2023

4. Taking account of the outcomes and lessons learned from implementation of its previous work plans, extensive consultations with as wide a range of stakeholders as possible, and the outcomes of the fifteenth and sixteenth sessions of the Group of Experts, the Group of Experts proposes to undertake the following activities in 2022 and 2023.

A. Disseminate and facilitate the application of best practices for effective methane recovery and use from active and abandoned coal mines through, among other means, activation of the existing and creation of new national and international centres of excellence on coal mine methane

Description:

5. Since 2005, the Group of Experts has collaborated with the Global Methane Initiative (GMI), a voluntary, multilateral partnership that aims to reduce global methane emissions and to advance the abatement, recovery and use of methane. In partnership with GMI, in 2010 the Group of Experts published and has since disseminated the "Best Practice Guidance for Effective Methane Drainage and Use in Coal Mines". In 2016, the Best Practice Guidance was revised, updated and supplemented by a number of new case studies. In 2019, the Group of Experts together with GMI, prepared and published the “Best Practice Guidance for Effective Methane Recovery and Use from Abandoned Coal Mines”. Both documents are to be promoted by the Group through dissemination activities in countries facing challenges with effective methane management in active mines, as well as in those encountering difficulties resulting from the gradual phaseout of coal and the ensuing mines closure. The work of the Group of Experts to deliver the above-mentioned activities is supported by an extension of the grant that the United Nations Economic Commission for Europe (ECE) received from the United States Environmental Protection Agency (U.S. EPA) to deliver the extrabudgetary project “Dissemination of best practices in the abatement, recovery, and use of methane; Phase II”.

Work to be undertaken:

(a) Plan, organize, and execute two capacity-building workshops, in a physical location or online, on best practices for effective methane recovery and use from active or abandoned coal mines, subject to availability of extrabudgetary resources;

(b) Continue collaboration with GMI, including through the extension of phase II of the extrabudgetary project on “Dissemination of best practices in the abatement, recovery, and use of methane", engagement in the Global Methane Challenge activities, and joint support to an International Decade for Methane Management, should one be declared.

Deliverables and Timeline:

(a) Two capacity-building workshops, in a physical location or online, on best practices for effective methane recovery and use from active or abandoned coal mines, by December 2023, subject to availability of extrabudgetary resources;

(b) A set of events focussing on coal mine methane (CMM) organized jointly by the Group of Experts and GMI within the framework of the Global Methane Challenge and any International Decade for Methane Management, should one be declared, throughout the biennium, subject to availability of extrabudgetary resources.

B. Launch and support the work of the International Centres of Excellence on Coal Mine Methane

Description:

6. An International Centre of Excellence on Coal Mine Methane (ICE-CMM) is a non-profit entity established in a United Nations Member State under the national laws of that

Member State that, under the auspices of and in close collaboration with the Group of Experts, supports capacity-building activities through the dissemination of best practices in economically-viable methane abatement and utilisation, socially-acceptable underground coal mine practices, and environmentally-responsible methane management. The Group of Experts seeks to establish a network of independent ICE-CMMs operating in different locations and collaborating with one another under the guidance and oversight of the Group. The first and second ICE-CMMs, located in Poland and China respectively, became operational in 2017.

7. The principal aims of each ICE-CMM are to: (i) disseminate and implement best practices in gas capture and use in coal mines based on the principles published in the Best Practice Guidance documents; (ii) serve as a repository of knowledge on gas control, gas drainage and gas use; (iii) raise awareness of benefits and challenges in the CMM sector; (iv) establish links with other ICE-CMMs and collaborate on key activities and in research; and (v) report to and support the work of the Group of Experts. The Centres are to deliver on those goals through the following activities: (i) collecting and summarizing information on modern technologies for the extraction, degassing and utilization of coalbed methane (CBM), including mining-related forms of CBM, e.g. CMM, ventilation air methane (VAM) and abandoned mine methane (AMM); (ii) integration and dissemination of information through various means of communications, including onsite events and online platforms; (iii) research and development in coordination with other ICE-CMMs; (iv) testing and experimentation of new technologies, methods, and equipment; (v) development of curriculum and delivery of trainings (online and in-person); (vi) analysis of the current legislation, standards, instructions, directives and other relevant regulations, and developing proposals for their improvement; and (vii) assessment and monitoring of methane resources according to the United Nations Framework Classification for Resources (UNFC).

8. The Bureau of the Group of Experts will engage in planning, delivering, and overseeing the activities of the existing ICE-CMMs. The Group of Experts will assist ICE-CMMs with organizing and delivering activities specified in their respective Work Plans, as well as providing oversight of their work. In terms of the latter, each Centre is required to submit an annual status report and work plan for the upcoming year to the Group of Experts for review and approval. The Bureau of the Group of Experts, together with the secretariat, will also encourage the Group of Experts' partners – Ukraine and the United States of America – to continue their work to establish Centres of Excellence in these countries, as well as seek opportunities to expand the network of ICE-CMMs worldwide. The Group of Experts will engage in a dialogue with the Russian Federation to strengthen the cooperation between the Group and the newly established Russian Centre for Problems of Methane and Gas-dynamic Phenomena in Coal and Ore Deposits.

Work to be undertaken:

(a) Assist the ICE-CMMs in Poland and China in carrying out their work, as requested or needed in accordance with the ICE-CMM's Terms of Reference;

(b) Support the Group's partners - Ukraine and the United States of America - to continue their work to establish ICE-CMMs in these countries;

(c) Engage in a dialogue with the Russian Federation to strengthen the cooperation between the Group and the Russian Centre for Problems of Methane and Gas-dynamic Phenomena in Coal and Ore Deposits;

(d) Should additional ICE-CMMs be established, assist the host institutions in carrying out the work of the Centres, as requested or needed in accordance with the ICE-CMMs' Terms of Reference;

(e) Organize quarterly coordination calls between the ICE-CMMs and the secretariat.

Deliverables and Timeline:

(a) One or two workshops or seminars, to be planned, organized and executed in cooperation with ICE-CMMs in a physical location or online, on best practices for effective

methane recovery and use from active or abandoned coal mines, by December 2023, subject to availability of extrabudgetary resources;

(b) Yearly status report on the activities of ICE-CMM Poland, to be delivered by ICE-CMM Poland for review and approval of the Group of Experts, at the annual sessions of the Group in 2022 and 2023;

(c) Yearly status report on the activities of ICE-CMM China, to be delivered by ICE-CMM China for review and approval of the Group of Experts, at the annual sessions of the Group in 2022 and 2023;

(d) Initial work plans for each new Centre, should new ICE-CMMs be established, including a list of expected deliverables, which are to be delivered in coordination with the Group of Experts, as requested by the host entities;

(e) Quarterly coordination calls between the Centres and the secretariat, starting in the first quarter of 2022.

C. Collect and disseminate case studies on the application of best practice guidance in specific coal mines in different regions of the world

Description:

9. Case studies are needed to demonstrate how the principles outlined in the Best Practice Guidance for Effective Methane Drainage and Recovery in Coal Mines and in the Best Practice Guidance for Effective Methane Recovery and Use from Abandoned Coal Mines can be implemented at, respectively, active and abandoned coal mines around the world. At its tenth session in 2015, the Group of Experts recommended that a case study library be developed to complement the Best Practice Guidance for Effective Methane Drainage and Recovery in Coal Mines. A library has been assembled in electronic format on the ECE coal mine methane website.[2] In 2020, an additional library of case studies dedicated to methane recovery and use from abandoned mines was established online as a supplement to the Best Practice Guidance for Effective Methane Recovery and Use from Abandoned Coal Mines.[3] Subject to extrabudgetary resources both case study libraries could be extended by elaborating concrete, in-depth case studies and analyses that demonstrate the benefits of applying the best practices developed by the Group.

Work to be undertaken:

10. Develop, compile and publish on the ECE CMM website case studies on effective methane management in active and/or closed coal mines, subject to availability of extrabudgetary resources.

Deliverables and Timeline:

11. Case studies on implementation of best practices in effective methane management in active and/or closed coal mines, subject to availability of extrabudgetary resources. This process is an ongoing activity of the Group of Experts. Case studies to be reviewed and approved as they are received.

D. Contribute, in cooperation with other Groups of Experts and under the leadership of the Committee on Sustainable Energy, to the work on integrated methane management in the context of sustainable development

Description:

12. In January 2015, the Group of Experts offered to participate in the Task Force on Methane Management in Extractive Industries that reports to the Bureau of the Committee

[2] https://unece.org/sustainable-energycoal-mine-methane/case-studies.

[3] https://unece.org/amm.

on Sustainable Energy. The Group of Experts will continue to contribute, within the scope of its expertise, to the work on methane management in key energy-related extractive industries undertaken jointly by various Groups of Experts operating under the umbrella and leadership of the Committee. The Group of Experts will review existing practices in measuring, monitoring, reporting and verifying methane emissions from the coal sector in selected countries of the ECE region and beyond, and will attempt to identify unified best practices in those areas.

Work to be undertaken:

13. Review existing practices in measuring, monitoring, reporting and verifying methane emissions from the coal sector in selected countries of the ECE region and beyond, and identify unified best practices in those areas.

Deliverables and Timeline:

(a) Report reviewing existing practices in measuring, monitoring, reporting and verifying methane emissions from the coal sector in selected countries of the ECE region and beyond, by the second quarter of 2022;

(b) Set of physical or online consultation meetings with stakeholders in key coal mining countries in the ECE Region, by December 2022;

(c) Publication, in print and/or electronic, identifying best practices in measuring, monitoring, reporting and verifying methane emissions from the coal sector, by December 2022.

E. Further engage, in cooperation with other groups of experts and under the leadership of the Committee on Sustainable Energy, in the work on the transition of the fossil fuels-based industries in the ECE region

Description:

14. In November 2015, the Committee on Sustainable Energy at its twenty-fourth session mandated the Group of Experts on Coal Mine Methane to make a proposal on how to expand the current mandate of the Group of Experts to encompass work on the transition of traditional mining companies to become integrated energy providers and service companies and to explore the impact this transition might have on energy for sustainable development. In September 2017, at the twenty-sixth session of the Committee, the Group of Experts presented its proposal and recommendations. In accordance with the recommendations made to the Committee, the Group of Experts stands ready to further engage in the work on the transition of the fossil fuels-based energy sector in the ECE region.

Work to be undertaken:

15. Engage, in cooperation with other groups of experts and under the leadership of the Committee on Sustainable Energy, in work facilitating ECE member States' transition of industries along the coal value chain and coal-dependent regions, subject to availability of extrabudgetary resources.

Deliverables and Timeline:

(a) A set of coal sector transition consultation meetings, whether in a physical location or online, with stakeholders in various countries across the ECE region, throughout the biennium, subject to member States' interest;

(b) Guidelines on mine closure with special focus on gassy mines, by December 2023, subject to availability of extrabudgetary resources;

(c) A document outlining principles on managing the social aspects and impact of the transition of industries along the coal value chain and coal-dependent regions, by December 2023;

(d) Case studies on techno-economic opportunities for emission reductions from coal-utilizing industrial plants in interested ECE member States, by December 2023, subject

to the identification of suitable candidate countries and availability of extrabudgetary resources.

F. Contribute to the work of the Expert Group on Resource Management on United Nations Framework Classification for Resources and United Nations Resource Management System specifications and guidelines for coal-associated gas resources

Description:

16. Continue contributing, within the scope of the Group's expertise, to the work of the Expert Group on Resource Management on development of documentation allowing the United Nations Framework Classification for Resources (UNFC) and the United Nations Resource Management System (UNRMS), under development, to be effectively applied to and manage coal-associated gas resources.

Work to be undertaken:

17. Provide advice, as requested by the Expert Group on Resource Management and within the scope of the Group of Experts' expertise, on developing specifications and guidelines for application of UNFC and UNRMS to manage coal-associated gas resources.

Deliverables and Timeline:

18. Input to specifications and guidelines for application of UNFC and UNRMS to manage coal-associated gas resources developed by the Expert Group on Resource Management, subject to progress on the topic and upon request by the Expert Group on Resource Management.

G. Contribute, in cooperation with other Groups of Experts and under the leadership of the Committee on Sustainable Energy, to the project "Enhancing the understanding of the implications and opportunities of moving to carbon neutrality in the ECE region across the power and energy intensive industries by 2050" (Carbon Neutrality Project)

Description:

19. "Carbon neutrality" refers to achieving net zero CO_2 emissions by balancing carbon emissions with carbon removal or simply by eliminating carbon emissions altogether (the transition to a "post-carbon economy"). Many countries have started to shift efforts towards carbon neutrality. As fossil fuels are likely to continue to play an important role for ECE member States in the short and medium term, achieving carbon neutrality will require deployment of carbon capture and storage (CCS) technologies and other compensating technologies and measures, such as increasing the absorptive capacity of forests and peatlands.

20. The Carbon Neutrality Project is being implemented under the auspices of the Group of Experts on Cleaner Electricity Systems. It explores not only environmental implications but also the economic, social, and resource dimensions of various technologies. For its purposes, carbon neutrality refers to the whole energy system including transport, industry, and buildings.

21. At its twenty-ninth session (25-27 November 2020, Geneva), the Committee on Sustainable Energy requested the secretariat, with the support of the groups of experts, to draft a position paper for ECE on carbon neutrality to be considered at the thirtieth session of the Committee.

22. The Group of Experts stands ready to contribute, within the scope of its expertise, to the above-mentioned position paper.

Work to be undertaken:

23. Contribute, as requested by the Committee on Sustainable Energy and within the scope of the Group of Experts' expertise, to the position paper for ECE on carbon neutrality.

Deliverables and Timetable:

24. Input to the position paper for ECE on carbon neutrality, upon request by the secretariat or the Group of Experts on Cleaner Electricity Systems that leads the work on the Carbon Neutrality Project.

H. Promote broader inclusiveness of the Group of Experts, giving due attention to gender equality

Description:

25. In line with the objectives of Sustainable Development Goal 5 "Achieve gender equality and empower all women and girls", the Group of Experts undertakes necessary steps to assure full inclusiveness in its membership and work and to promote the value of diversity. The Group of Experts gives due attention to gender matters in all of its activities, striving to identify barriers that prevent greater involvement of women in the mining industry, and highlighting the benefits that diversity of staff and the resulting multiplicity of experiences and worldviews can bring to entities operating in the sector.

Work to be undertaken:

26. Continue to promote the value of diversity, identify barriers that prevent greater involvement of women in the mining industry, and highlight the benefits that diversity of the staff and the resulting multiplicity of experiences and worldviews can bring to entities operating in the sector.

Deliverables and Timeline:

27. A session promoting the value of diversity, identifying barriers that prevent greater involvement of women in the mining industry, and highlighting the benefits that diversity of the staff and the resulting multiplicity of experiences and worldviews can bring to entities operating in the sector at one or more of the events organized by the Group of Experts, by December 2023.

I. Continue to provide advice on coal mine methane related standards to the United Nations Framework Convention on Climate Change (UNFCCC), the International Organization for Standardization (ISO), and other international, national and regional market-based coal mine methane emission reduction mechanisms. Engage and develop robust professional ties with the recognized expert entities operating in the field of fossil-based energy

Description:

28. In the past, the Group of Experts advised UNFCCC on matters related to methane standards and methodologies, namely ACM0008 (Consolidated methodology for coalbed methane, coal mine methane and ventilation air methane capture and use for power (electrical or motive) and heat and/or destruction through flaring or flameless oxidation). The Group of Experts also provides comments on other international, national and regional market-based coal mine methane emission reduction mechanisms, such as the California Air Resources Board Mine Methane Capture Protocol or the ISO Technical Committee 263 Coalbed methane (CBM). To increase the efficiency and visibility of its work, the Group of Experts seeks to establish professional ties with recognized expert entities operating in the field of fossil-based energy. In order to change the negative and generalized image of the coal industry predominant among multilateral and bilateral financial institutions, which has become a barrier to financing and implementing coal mine methane capture and use projects,

the Group of Experts seeks to engage with such institutions in order to educate them on the benefits deriving from efficient CMM management.

Work to be undertaken:

29. Continue to liaise with the above-mentioned and similar organizations and actively offer the Group of Experts' advice and services. To establish professional ties with the recognized expert entities operating in the field of fossil-based energy. To change the negative and generalized image of the coal industry predominant among multilateral and bilateral financial institutions and educate such institutions on the benefits deriving from efficient coal mine methane management.

Deliverables and Timeline:

(a) Advice and comments, upon request, on coal mine methane related standards, as requested;

(b) Establish professional ties with the recognized expert entities operating in the field of fossil-based energy, throughout the biennium, subject to the interest of the targeted partners;

(c) Continue exploring opportunities for engagement with multilateral and bilateral financial institutions, with the goal to change the negative and generalized image of the coal industry, and to raise extrabudgetary funds to support the current and future activities of the Group of Experts, throughout the biennium, subject to the interest of the targeted partners.