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**Economic Commission for Europe****Committee on Sustainable Energy****Thirty-second session**

Geneva, 13-15 September 2023

Item 9 (b) of the provisional agenda

**Looking ahead: Future work of the Committee on Sustainable Energy:****Approval of documents****Work Plan of the Group of Experts on Coal Mine Methane  
and Just Transition for 2024-2025****Prepared by the Group of Experts on Coal Mine Methane and Just  
Transition****I. Introduction**

1. At its eighteenth session held on 20-21 March 2023 in Geneva, Switzerland, the Group of Experts on Coal Mine Methane and Just Transition reviewed a draft of its work plan for 2024-2025 (ECE/ENERGY/GE.4/2023/3) prepared by the Bureau of the Group, and after holding a discussion on that matter it approved the document and requested the secretariat to submit the work plan for a review and approval of the Committee on Sustainable Energy, at the Committee's thirty second session (para. 22 of the Report from the Eighteenth session of the Group of Experts on Coal Mine Methane and Just Transition - ECE/ENERGY/GE.4/2023/2).

2. The mandate of the Group of Experts on Coal Mine Methane and Just Transition (the Group of Experts) is to promote the efficient and environmentally sustainable transition of industries along the coal value chain ensuring the reduction of associated greenhouse gas (GHG) emissions and social equity of the process. This is carried out 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 in the context of climate change mitigation and to contribute to sustainable development, including offering support to communities, local economies and the environment in the just transition process.

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

(a) Reduction and management of methane emissions through for example 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; and



(c) Environmentally sustainable transition and repurposing of coal mines and existing coal 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.

4. The Group of Experts requests the Committee on Sustainable Energy to renew its mandate until 31 December 2025, with the possibility of extension.

## II. Substantive activities in 2024-2025

5. Taking account of the outcomes and lessons learned from implementation of its previous work plans, extensive consultations with a wide range of stakeholders, and the outcomes of the seventeenth and eighteenth sessions of the Group of Experts, the Group of Experts proposes to undertake the following activities in 2024 and 2025.

### A. Disseminate and facilitate application of best practices for effective methane monitoring, recovery, and use from active and abandoned coal mines

#### Description:

6. 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 and in 2021, the Group of Experts together with GMI, prepared and published, respectively, the *Best Practice Guidance for Effective Methane Recovery and Use from Abandoned Coal Mines*, and the *Best Practice Guidance for Effective Management of Coal Mine Methane at National Level: Monitoring, Reporting, Verification and Mitigation*. All three 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 countries encountering difficulties resulting from gradual phaseout of coal and the ensuing mine closures.

#### 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 monitoring, recovery, and use from active or abandoned coal mines, subject to availability of extrabudgetary resources;

(b) Continue collaboration with the key partners operating in the field of methane from the coal sector, e.g., GMI and the International Methane Emissions Observatory (IMEO), including through potential joint extrabudgetary projects, as well as the Group of Experts' support to the Global Methane Pledge and the Metcoal Methane Partnership and its involvement in promotion of those initiatives among the non-signatory States;

(c) Deliver tasks identified for implementation throughout the biennium in the work plans of the Task Forces on (i) Methane Emissions Reduction and on (ii) Safe Operations and Closure of Coal Mines, subject to availability of necessary resources.

#### Deliverables and Timeline:

(a) Two capacity-building workshops, in a physical location or online, on best practices for effective methane monitoring, recovery and use from active or abandoned coal mines, by December 2025, subject to the targeted recipients' interest and availability of extrabudgetary resources;

(b) Engagement with representatives of the States non-signatories to the Global Methane Pledge to encourage and facilitate their participation in the initiative, by December 2025, subject to the targeted States' interest;

(c) Engagement with representatives of the coal industry to encourage and facilitate their participation in the Metcoal Methane Partnership, by December 2025, subject to the targeted industry representatives' interest;

(d) Tasks identified for implementation throughout biennium by the Task Forces on (i) Methane Emissions Reduction and on (ii) Safe Operations and Closure of Coal Mines in accordance with their respective work plans and subject to availability of necessary resources, by December 2025.

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

### **Description:**

7. 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 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 is working 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.

8. The principal aims of each ICE CMM are: (i) to 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), 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 Classification Framework for Resources (UNFC).

9. 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 delivery of activities specified in their respective Work Plans, as well as provide 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 engage with States interested in hosting ICE-CMMs to explore the possibility of establishing additional ICE-CMMs in those locations.

### **Work to be undertaken:**

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

(b) Assist the ICE-CMM in China in carrying out its work, as requested or needed, in accordance with the ICE-CMM's Terms of Reference;

(c) Should additional ICE-CMM(s) be established, assist the host institution(s) in carrying out work of the Centre(s), as requested or needed, in accordance with the ICE-CMM(s)' Terms of Reference.

**Deliverables and Timeline:**

(a) Plan, organize, and execute in cooperation with the ICE-CMMs two workshops or seminars, in a physical location or online, on best practices for effective methane monitoring, recovery and use from active or abandoned coal mines, by December 2025, 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 the Group of Experts' review and approval, at the annual sessions of the Group in 2024 and 2025;

(c) Yearly status report on the activities of ICE-CMM China, to be delivered by ICE-CMM China for the Group of Experts' review and approval, at the annual sessions of the Group in 2024 and 2025;

(d) Should new ICE-CMM(s) be established, initial work plans for each new Centre with a list of deliverables which are to be delivered in coordination with the Group of Experts, when necessary, as requested by the host entities.

**C. Collect and disseminate case studies on the application of the best practices identified by the Group of Experts in specific coal mines in different regions of the world**

**Description:**

10. Case studies are needed to demonstrate how the principles outlined in the *Best Practice Guidance for Effective Methane Drainage and Recovery in Coal Mines*, the *Best Practice Guidance for Effective Methane Recovery and Use from Abandoned Coal Mines*, and the *Best Practice Guidance for Effective Management of Coal Mine Methane at National Level: Monitoring, Reporting, Verification and Mitigation* can be implemented at 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 form on the ECE coal mine methane website. 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*. Following publication of the *Best Practice Guidance for Effective Management of Coal Mine Methane at National Level: Monitoring, Reporting, Verification and Mitigation* a library containing case studies demonstrating application of various methane emission detection and monitoring practices and technologies could be developed. Subject to extrabudgetary resources all 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:**

(a) Develop, compile, and publish on the Group of Expert's official website case studies on effective methane monitoring and management in active and/or closed coal mines, subject to the interested Parties' readiness to provide the Group of Experts with extrabudgetary resources or in-kind contributions permitting the Group to effectively deliver on this task.

**Deliverables and Timeline:**

(a) Case studies on implementation of best practices in effective methane monitoring and management in active and/or closed coal mines, as they are received from the interested Parties. This process is an ongoing activity of the Group of Experts.

**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:**

11. In January 2015, the Group of Experts offered to contribute to the work on methane management in key energy-related extractive industries undertaken under the umbrella and leadership of the Committee on Sustainable Energy. If that work continues and the Group's involvement is requested by the Committee, the Group of Experts stands ready to continue to contribute, within the scope of its expertise, to any cross-cutting activities related to methane management in key energy-related extractive industries undertaken by the Sustainable Energy Subprogramme.

**Work to be undertaken:**

(a) Contribute, within the scope of the Group of Experts' expertise and upon the Committee on Sustainable Energy's request, to the work on methane management in key energy-related extractive industries undertaken under the umbrella and leadership of the Committee.

**Deliverables and Timeline:**

(a) Contribution, within the scope of the Group of Experts' expertise and upon the Committee on Sustainable Energy's request indicating the expected input, to the work on methane management in key energy-related extractive industries undertaken under the umbrella and leadership of the Committee, by December 2025 in accordance with the Committee's request.

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

**Description:**

12. In September 2022, the Committee on Sustainable Energy approved the expanded mandate of the Group of Experts on Coal Mine Methane and Just Transition to encompass activities aiming to ensure that the transition of the coal mining regions and communities is conducted in accordance with the principles of a just transition. A shift towards a green economy will have an enormous impact on the social strata, the wellbeing of which over the last decades has been associated with the existence and prosperity of legacy industries. To ensure social acceptance of the transition and the fairness of the process and its outcome, which are necessary for assuring sustainability of the proposed environmentally oriented reconstruction strategies, policies focused on alleviating the expected social shocks and providing protective measures for the affected communities must be developed in an inclusive manner and implemented gradually as the transition progresses. The Group of Experts also recognizes the recent increased interest in coal of a number of ECE member States and ongoing considerations to increase or resume domestic coal production as a result of the current global crisis and geopolitical upheavals juxtaposing states' environmental commitments and energy security concerns.

**Work to be undertaken:**

(a) Engage, in cooperation with other Groups of Experts and under the leadership of the Committee on Sustainable Energy, in work facilitating transformation and greening of ECE member States' industries along the coal value chain and of coal-dependent regions in accordance with the principles of just transition, subject to availability of extrabudgetary resources;

(b) Explore, in cooperation with other Groups of Experts and under the leadership of the Committee on Sustainable Energy, opportunities for development of a theoretical

framework for a model transition of coal mining regions, subject to availability of extrabudgetary resources;

(c) Deliver tasks identified for implementation throughout the biennium in the work plans of the Task Force on (i) Just Transition and on (ii) Safe Operations and Closure of Coal Mines, subject to availability of necessary resources;

(d) Facilitate a debate on the merits of temporarily increasing or resuming coal production to address energy security concerns and on available alternatives for efficient energy generation and consumption, and provide technical and regulatory expertise on best practices and technologies for limiting, to the maximum extent possible, the negative economic and environmental impact of such decisions by those ECE member States that choose coal-based power generation in response to the current energy crisis.

**Deliverables and Timeline:**

(a) A solid community of stakeholders involved in the work on various aspects on just transition within as well as outside of the UN system, by December 2025;

(b) A document outlining a theoretical framework for a model transition of coal mining regions, subject to availability of extrabudgetary resources, by December 2025;

(c) Selection, in cooperation with other Groups of Experts and under the leadership of the Committee on Sustainable Energy, as well as in cooperation with interested local authorities and/or site operators located in the ECE region, upon prior request and subject to availability of extrabudgetary resources, of a specific coal mining community or legacy industry site for implementation of a pilot project based on the developed theoretical framework for transition and serving as a basis for development of a replicable model for transition, by December 2025;

(d) A study on how development of hydrogen-based economy can help with facilitating the process of just transition towards the green economy of the regions currently dependent on legacy industries based on coal, subject to availability of extrabudgetary resources, by December 2025;

(e) A set of online or onsite meetings on expected consequences, costs, and benefits of the temporary increase or resumption of coal production in those ECE member States that decide to follow that path in response to the current energy crisis, including considerations of technical and regulatory measures that need to be undertaken to limit, to the maximum extent possible, the negative economic and environmental impact of such decisions, as well as analysis of available alternatives for efficient energy generation and consumption, subject to member States interest, by July 2024;

(f) A report summarizing the discussions held at the meetings on expected consequences, costs, and benefits of the temporary increase or resumption of coal production and on available alternatives for efficient energy generation and consumption, including conclusions and recommendations resulting from the debates, subject to States interest and availability of necessary resources, by December 2024;

(g) Tasks identified for implementation throughout biennium by the Task Forces on (i) Just Transition and on (ii) Safe Operations and Closure of Coal Mines in accordance with their respective work plans and subject to availability of necessary resources, by December 2025.

**F. Contribute, in cooperation with other Groups of Experts and under the leadership of the Committee on Sustainable Energy, to work on building resilient energy systems in the ECE region**

**Description:**

13. The challenges that the ECE region is currently facing provide a unique opportunity for member States to rethink the existing energy infrastructure and design resilient energy systems that provide access to affordable, reliable, sustainable, and modern energy for all (Sustainable Development Goal (SDG) 7) and that help to reduce GHG emissions and the

carbon footprint of the energy sector in the region. Resilient energy systems must be based on three pillars: (i) energy security, (ii) quality of life, and (iii) environmental sustainability. While each of these pillars contributes to attaining sustainable energy, none of them alone fully describes sustainable energy, which is a golden thread that underpins the delivery of all the SDGs. Finding a balance between the three pillars is a complex social, political, economic, and technological challenge. A dialogue that has recently started under the leadership of the Committee on Sustainable Energy is conceived as a vehicle enabling member States to work jointly on addressing that challenge in a coordinated and effective manner.

**Work to be undertaken:**

(a) Contribute, as requested by the Committee on Sustainable Energy and within the scope of the Group of Experts' expertise, to work on building resilient energy systems in the ECE region.

**Deliverables and Timeline:**

(a) Contribution, within the scope of the Group of Experts' expertise and upon the Committee on Sustainable Energy's request indicating the expected input, to the work on building resilient energy systems in the ECE region undertaken under the umbrella and leadership of the Committee, by December 2025 in accordance with the Committee's request;

(b) Established working engagement with the other Group of Experts operating under the umbrella of the Committee on Sustainable Energy ensuring that the just transition angle is properly reflected in their respective work on building resilient energy systems in the ECE region, by December 2025.

**G. 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:**

14. 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) to be effectively applied to and manage coal-associated gas resources.

**Work to be undertaken:**

(a) 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:**

(a) 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.

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

**Description:**

15. In line with the objectives of SDG 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.

16. The Group of Experts is also to pay due attention to proper youth engagement in its work, in particular on just transition. In the spirit of inclusiveness, it is necessary to make the voice of the young generation heard in a debate on the future of the coal mining regions. In accordance with the Group's approach to redesigning those localities for and with their inhabitants, it is of crucial importance to include the opinion of the latter in the process of developing strategies that are to determine the direction and the scope of the planned transitions.

**Work to be undertaken:**

(a) 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 world views – can bring to entities operating in the sector;

(b) Engage with the young generation of inhabitants of the coal mining communities, as well as of professionals working in the field of energy and just transition to include their opinions, concerns, needs, and ambitions in the process of developing socially, environmentally, and economically sound and sustainable strategies for transformation of the coal mining regions.

**Deliverables and Timeline:**

(a) 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 world views can bring to entities operating in the sector at one or more of the events organized by the Group of Experts, by December 2025;

(b) A solid community of young stakeholders involved in the Group's work on a just transition of coal mining regions, by December 2025;

(c) A session promoting the value of youth engagement in the just transition of the coal mining sector and the regions that depend on it, and allowing the younger generation to express its opinions, concerns, needs, and ambitions related to that process at one or more of the events organized by the Group of Experts, by December 2025.

**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:**

17. 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:**

(a) Continue to liaise with the above-mentioned and similar organizations and actively solicit 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) 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 targeted partners.

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