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Economic Commission for Europe

Committee on Sustainable Energy

Ad Hoc* Group of Experts on Coal Mine Methane*Seventh session**

Krakow, 11 October 2011

Report of the *Ad Hoc* Group of Experts on Coal Mine Methane on its Seventh session**Introduction**

1. The Seventh session of the *Ad Hoc* Group of Experts on Coal Mine Methane was held on 11 October 2011 in Krakow, Poland. Additional information and presentations from the session are available on ECE website: <http://www.unece.org/energy/se/cmm.html>.

Attendance

2. The session was attended by 22 experts. Representatives of the following ECE member States were present: Canada, Poland, the Russian Federation, Sweden, Ukraine, the United Kingdom of Great Britain and Northern Ireland, and the United States of America.

3. In addition, representatives of Australia and India participated under Article 11 of the Commission's Terms of Reference. Representatives of the United Nations Framework Convention on Climate Change and the Global Methane Initiative were also present.

Adoption of the Agenda (agenda item 1)**Documentation:** ECE/ENERGY/GE.4/2011/1

4. The provisional agenda was adopted without amendment.

Election of Officers (agenda item 2)

5. The *Ad Hoc* Group of Experts re-elected the existing Bureau, which will continue to serve in 2012-2013: Mr. Pilcher (the United States of America) as the Chair, and Mr. Bobrov (Ukraine), Mr. Creedy (the United Kingdom), Mr. Davies (United Kingdom), Ms. Franklin (the United States of America), Mr. Mader (Germany), Mr. Skiba (Poland), Mr. Shumkov (Russian Federation) and Mr. Yashchenko (Ukraine) as Vice Chairs.

Opening remarks from the Chairman (agenda item 3)

6. The Chairman welcomed the participants and thanked the Bureau for its work. He expressed his continuous commitment to serve in the next term. He stressed that ever since its inception in 2004, the *Ad Hoc* Group of Experts strived to work on exploring the economic advantages of coal mine methane projects while emphasizing safe practices. He urged the *Ad Hoc* Group of Experts to continue to look at CMM management in the context of the three pillars of sustainable development--environmental, economic and social. Such interdependent activities would not only provide added income, but also increase mine safety and reduce methane emissions. Working in such a way, the *Ad Hoc* Group of Experts would help create a virtual cycle that would spiral upward, so that the benefits resulting from coal mine methane utilization projects would accrue to the miners as well as mine owners and operators.

Activities and priorities of the Committee on Sustainable Energy and any matters for consideration by the *Ad Hoc* Group of Experts (agenda item 4)

7. The secretariat provided an overview of recent activities within the programme of work of the Committee on Sustainable Energy (ECE/ENERGY/84) following its 19th session in November 2010. At its Sixth session in October 2010, the *Ad Hoc* Group of Experts requested from the Committee that the "*Ad Hoc*" attribute be dropped from its name, reflecting a more permanent nature of the Group. The Committee endorsed this request and passed the recommendation to the Executive Committee of the Economic Commission for Europe. However, the Executive Committee did not approve the proposal for purely financial reasons, that is, because of the cost associated with translating all documents into the three official languages of the Economic Commission for Europe.

8. The secretariat also informed the *Ad Hoc* Group of Experts that in July 2011 UNECE proposed to its parent body, the Economic and Social Council (ECOSOC), to consider adopting a resolution or decision that would recommend "Best Practice Guidance for Effective Methane Drainage and Use in Coal Mines" as a global standard for best practices in coal mine safety. According to unofficially received information by the day of the session, such a resolution was adopted. Once the resolution becomes officially confirmed, the secretariat will inform the *Ad Hoc* Group of Experts, who will then decide how to capitalize on this development and use the ECOSOC resolution to leverage its activities in coal mine safety, in the ECE region and beyond.

***Tour de table* (agenda item 5)**

9. The *Ad Hoc* Group of Experts members reviewed in brief the activities on CMM management and utilization in their respective countries or organizations. Some of the outlined activities and projects include: small-scale CMM projects in Mexico; utilization of regenerative thermal oxidation (RTO) technology for destruction of VAM emissions; and demo- and large-scale VAM abatement projects in Australia, China, and the United States.

10. The host country, Poland, gave a more detailed presentation on CMM status in the country. Poland produces 90% of its electricity from coal. The presentation focused on methane emissions from coal mines, both through drainage (30% of total emissions) and VAM (70%). Of 834.9 million m³ of methane released during mining operations only 30% was being captured by drainage systems, and around 2/3 of the capture drainage gas was

utilized or destroyed. Since 70% of methane released during mining operations was ventilated to the atmosphere, there is a significant potential for VAM projects in Poland.

11. The representative of the US Environmental Protection Agency outlined their recent and planned activities in supporting global coal mine methane emission reductions. US CMM industry was robust, with 80% of methane from coal mine degasification systems recovered and utilized. For comparison, in 1993 only 25% of methane was recovered. US EPA, as the leading US agency for Global Methane Initiative, has identified over 300 CMM projects in 13 countries and provided more than \$4 million over past 4 years for projects in China, India, Mongolia, Poland, Russia, and Turkey.

Update on the extra-budgetary project on methane capture and use: "Best Practice Guidance on Effective Methane Drainage and Use in Coal Mines" (agenda item 6)

12. The main purpose of this extra-budgetary project is to promote the 2010 publication *Best Practice Guidance for Effective Methane Drainage and Use in Coal Mines* (ECE Energy Series no. 31) through a series of regional workshops. The secretariat informed the group that since the previous session of the *Ad Hoc* Group of Experts, three workshops were held: in Beijing, China (October 2010), Karaganda, Kazakhstan (May 2011), and Donetsk, Ukraine (September 2011). More details about these workshops can be found in separate reports, available at UNECE CMM website.

Activities of the *Ad Hoc* Group of Experts with respect to mine safety (agenda item 7)

13. The secretariat informed participants that it had received a proposal from the Russian Federation to fund an extra-budgetary project that would focus on coal mine safety and life support systems. According to preliminary submitted project proposal, drafted by the secretariat, the project would produce a virtual "coal mine safety bookshelf", or a collection of multimedia material on coal mine safety and the use of life support systems. The *Ad Hoc* Group of Experts on Coal Mine Methane discussed this proposal in detail and agreed to establish a Steering Committee of 6 members of AHGE on CMM to decide on implementation details. Mr. Creedy, Ms. Franklin, Mr. Gryadushchyy, Mr. Pilcher, Mr. Skiba, and Mr. Shumkov accepted to serve on the Steering Committee. It was agreed that the Steering Committee would discuss the project and come back to the *Ad Hoc* Group of Experts with its recommendations by the end of January 2012.

UNFCCC update on activities related to Coal Mine Methane (CMM) Projects (agenda item 8)

14. ACM0008 is a consolidated methodology, adopted in 2005, for coal bed methane, coal mine methane and ventilation air methane capture and use for power and heat, or destruction through flaring. The representative of UNFCCC explained the issuance of certified emission reductions (CER) and the role on CMM in clean development mechanism (CDM) projects. According to her, there were 50 CMM projects registered, representing 25,210,059 CER, mostly in China (one in Mexico).

15. UNFCCC stressed that ACM0008 was not meant to encourage unsafe mining practices of working with methane-air mixtures that are too close to methane's explosive range. In order to implement an improvement of ACM0008, UNFCCC invited the *Ad Hoc*

Group of Experts to submit revision requests and its comments to its online system (<http://cdm.unfccc.int/methodologies/PAMethodologies/approved>).

CMM drainage and utilization in Poland (agenda item 10)

16. The representatives of Jastrzebska Coal Company (JSW) and Dart Energy presented Polish best practices in efficient CMM drainage and VAM utilization. About 39 % of CMM released during mining operations is captured to methane drainage pipelines and about 61% of methane is disposed from underground excavations via the ventilation system. Cogeneration and tri-generation systems that use gas-fired engines fuelled with methane from drainage systems are a cost-efficient solution that significantly affects efficiency of power consumption at JSW coal mines.

Programme of work for 2012–2013 (agenda item 12)

17. Though an interactive discussion that involved all experts, *Ad Hoc* Group of Experts reached a consensus regarding the priorities in its programme of work for 2012–2013. The proposed activities to be undertaken during this period are to:

- a. Expand, if sources of funding could be secured, some technical fields of *Best Practice Guidance*, such as, e.g., best practice drilling, or low concentration drainage.
- b. Establish a Steering Committee for the implementation of the extra-budgetary project “Coal Mine Safety and Life Support Systems”.
- c. Explore the possibilities to mobilize additional funding needed to organize more workshops to promote *Best Practice Guidance*.
- d. Continue its collaboration with UNFCCC, related to improvements of ACM0008.

In general, *Ad Hoc* Group of Experts agreed that the above listed activities are not in conflict and that could be pursued in parallel.

18. The *Ad Hoc* Group of Experts was informed about the recently signed Memorandum of Understanding between the US Department of Energy and the Russian Ministry of Energy, according to which CMM was identified as one of the fields of this bilateral cooperation. The *Ad Hoc* Group of Experts took note of this encouraging development and asked the experts from the two countries to inform their respective ministries about the *Ad Hoc* Group of Experts willingness to assist this cooperation in its field of work.

Other business (agenda item 13)

19. The Eighth session of the *Ad Hoc* Group of Experts on Coal Mine Methane is tentatively scheduled for 10–11 October 2012 in Geneva. The *Ad Hoc* Group of Experts instructed the secretariat to explore the possibility to hold the session in November 2012, during the "Energy Week", in conjunction with the 21st session of the Committee on Sustainable Energy.

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