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**ECONOMIC COMMISSION FOR EUROPE**

**COMMITTEE ON SUSTAINABLE ENERGY**

Ad Hoc Group of Experts on Coal Mine Methane  
First session, 6 December 2004

**REPORT**

**I. ATTENDANCE**

1. The first session of the Ad Hoc Group of Experts on Coal Mine Methane was held on 6 December 2004 and attended by representatives from the following UNECE member countries: Albania, Bulgaria, Czech Republic, Germany, Hungary, Kazakhstan, Poland, Romania, Russian Federation, Slovakia, Spain, Sweden, Switzerland, Ukraine, United Kingdom, and United States of America.
2. Representatives of Australia and Brazil participated under Article XI of the Commission's Terms of Reference.
3. The United Nations Development Programme (UNDP), Global Environmental Facility (GEF) was represented.
4. The following specialized agencies and intergovernmental organizations were in attendance: ASSOCARBONI, International Committee for Coal and Organic Petrology (ICCP) and the International Energy Agency Clean Coal Centre (IEACCC).

**II. ADOPTION OF THE AGENDA (Agenda Item 1)**

5. The provisional agenda as contained in document ENERGY/GE.4/2004/1 was adopted.

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Note: all documentation and presentations delivered at the meeting are available on the UNECE website at: <http://www.unece.org/ie/se/coal/cmm.html>

### **III. ELECTION OF OFFICERS (Agenda Item 2)**

6. The Bureau was elected as follows: Mr. Clark Talkington (United States of America) was elected Chairman and Mr. Yuriy Bobrov (Ukraine), Mr. Roland Mader (Germany), Mr. Oleg Pluzhnikov represented by alternate Mr. Vladimir Berdin (Russian Federation), Mr. Grigoriy Prezent (Kazakhstan) (not present during the session), Mr. Jacek Skiba (Poland), and Mr. Stanislav Zolotykh (Russian Federation) were elected Vice-Chairmen.

### **IV. TERMS OF REFERENCE (Agenda Item 3)**

7. The meeting reviewed the draft Terms of Reference of the Ad Hoc Group of Experts (Annex I to the Provisional Agenda for the first session of the Ad Hoc Group of Experts on Coal Mine Methane, ENERGY/GE.4/2004/1).

8. Two amendments to the draft Terms of Reference were discussed. The first concerned the term “coal mine methane” (CMM); it was proposed that this term should include methane recovery from abandoned mines since this is a significant source of methane in many countries and abandoned mine projects often co-exist with active mine methane projects. The second amendment focussed on the need to establish a clearer link between methane recovery and mine safety and that a special technical task force or working group should be created to specifically address this issue for the Group of Experts.

9. The meeting agreed that the Terms of Reference should be revised to reflect the amendments discussed and that the new text would be included as an Annex to the Report of the meeting and then presented at the next session for adoption. The revised draft Terms of Reference are annexed to this report.

### **V. RECENT ACTIVITIES AND PRIORITIES OF THE COMMITTEE ON SUSTAINABLE ENERGY (Agenda Item 4)**

#### Documentation:

(i) ECE/ENERGY/53: Report of the thirteenth session of the Committee on Sustainable Energy

10. Mr. George Kowalski, Director of the UNECE Industrial Restructuring, Energy and Enterprise Development Division (IREEDD), briefed the Ad Hoc Group on issues relating to the UNECE generally and more specifically to the Sustainable Energy Section of the IREEDD.

11. Mr. Kowalski offered the full commitment of the IREEDD to the successful implementation of the UNECE extrabudgetary project “Facilitating Development of Coal Mine Methane Projects in Central and Eastern Europe and the Commonwealth of Independent States (CIS)”, which was financed by a grant from the US Environmental Protection Agency (US EPA) with parallel financing from the UN Foundation.

12. He welcomed the recent launch of the International Methane to Markets Partnership, underlining the many synergies between this Partnership and the aims of the UNECE’s programme of work on CMM. The Methane to Markets Partnership is an action-oriented

initiative that will reduce global methane emissions to enhance economic growth, promote energy security, improve the environment, and reduce greenhouse gases.

13. In closing, Mr. Kowalski commended the Group of Experts on its aim to identify the challenges and opportunities to support capture and use of methane from coal mines as well as to seek to identify and facilitate removal of barriers to project development and financing.

14. The meeting noted the information provided.

**VI. PROJECT ON “DEVELOPMENT OF COAL MINE METHANE PROJECTS IN  
CENTRAL AND EASTERN EUROPE AND THE CIS”  
(Agenda Item 5)**

Documentation:

(i) ENERGY/GE.4/2004/2: Project on “Development of CMM Projects in Central and Eastern Europe and the CIS”.

15. Mr. Frederic Romig, Deputy Director of the IREED Division, provided an overview of the UNECE Energy Efficiency (EE21) Programme, which had undertaken activities to identify barriers to project finance.

16. The secretariat introduced the UNECE extrabudgetary three-year project “Development of CMM Projects in Central and Eastern Europe and the CIS”.

17. The meeting:

(i) Took note of the material provided; and

(ii) Agreed upon the importance of supporting and promoting the Project on “Development of CMM Projects in Central and Eastern Europe and the CIS”.

**VII. FACILITATING GLOBAL COOPERATION IN THE DEVELOPMENT AND  
IMPLEMENTATION OF PROFITABLE CMM PROJECTS  
(Agenda Item 6)**

(a) Part I: Cooperation and Collaboration

18. Mr. Cameron Davies (Alkane Energy, United Kingdom) delivered a presentation on “Perspectives on the UK CMM Industry”.

19. Mr. Cliff Mallett (CSIRO, Division of Exploration and Mining, Australia) provided an overview of the very proactive CMM industry in Australia in a presentation entitled “Coal Mine Methane Activities in Australia: Lessons Learned”.

20. Mr. Georges Takla (OKD, DPB a.s., Czech Republic) provided a presentation on the “State of CMM and Abandoned Mine Methane (AMM) Recovery and Utilization in the Czech Republic”.

21. Mr. Richard Mattus (MEGTEC Systems AB, Sweden) briefed the meeting on cost-effective and efficient solutions for CMM abatement, presenting a case study on proven technology,

notably a large-scale installation for coal mine ventilation air methane.

22. Mr. Alexei Sankovski (ICF Consulting, United States) provided an overview of “Host Country Project Stakeholders in NIS: Overview of Lessons Learned”.

23. The meeting:

(i) Took note with appreciation of the extensive material provided.

(b) Part II: Facilitating Financing of CMM Projects

24. Mr. John Palmisano (Energy and Environment Capital, United States) provided a presentation on “Financing CBM/CMM/AMM: Issues and Opportunities”.

25. Mr. Deltcho Vitchev (Renaissance Finance, United Kingdom) made a presentation on “Key Barriers to Financing CMM Projects: Finance Panel Discussion Issues”.

26. A dedicated expert finance panel, chaired by Mr. Cliff Mallett (CSIRO, Australia) and composed of Mr. John Palmisano (Energy and Environment Capital, United States), Mr. Raymond Pilcher (Raven Ridge Resources, United States), Mr. Karl Schultz (Energy Edge Limited), Mr. Oleg Tailakov (Uglemetan, Russian Federation) and Mr. Deltcho Vitchev (Renaissance Finance, United Kingdom), discussed in detail the obstacles to the development and financing of CMM projects, together with the incentives for profitable CMM recovery.

27. The debate focussed on the need for a clear set of regulations for the financing and promotion of bundled projects that could constitute an attractive portfolio more likely to be supported by financial institutions.

28. The panel encouraged the Group of Experts to benefit from the UNECE’s role and status to seek to secure policy and regulatory changes that would promote the bundling of projects. The panel also asked the secretariat to establish a list of CMM technologies on the UNECE website and for this to be sponsored by technology providers themselves.

29. The secretariat advised the meeting that it would not be practicable for the UNECE to host such a listing on its website. The secretariat further informed the meeting that a list of technology providers was available on the US EPA site (<http://www.epa.gov/coalbed>).

30. The meeting:

(ii) Noted with satisfaction the material provided during the presentations and the panel discussion; and

(iii) Agreed upon the importance of benefiting fully from what the UNECE can offer with regard to facilitating promotion of projects and in attracting investments for CMM activities.

## **VIII. INTERNATIONAL METHANE TO MARKETS PARTNERSHIP (Agenda Item 7)**

31. The representative of the United States (Mr. Clark Talkington, U.S. Environmental Protection Agency) presented an overview of the US-led initiative “International Methane to Markets Partnership”, which aims to develop and promote cooperation on the recovery and use of

methane. Full information on this Partnership is available on the dedicated website:  
<http://www.methanetomarkets.org/>.

32. Mr. Talkington updated the Group of Experts on the outcome of the Methane to Markets Ministerial meeting hosted by the United States in Washington D.C., 15-17 November 2004.
33. Discussions ensued following the presentation on potential synergies between the Ad Hoc Group of Experts and the Partnership.
34. The meeting:
  - (i) Agreed upon the importance of strengthened coordination with the International Methane to Markets Partnership initiative; and
  - (ii) Noted with satisfaction all the information provided during the presentation and the discussion.

#### **IX. ACTIVITIES OF AND COOPERATION WITH VARIOUS INTERGOVERNMENTAL AND NON-GOVERNMENTAL ORGANIZATIONS (Agenda Item 8)**

35. The Spanish representative (Mr. Roberto Martinez, Spanish Geological Survey - IGME) provided an overview of CMM activities in Spain.
36. The representative from Ukraine (Mr. Vladimir Kamyshan, Ecomethan) discussed the situation in Ukraine with regard to development of CMM activities and emphasized that for successful project development to occur the legislative, technological and financial framework would need to be improved.
37. The Romanian delegation presented a summary of the potential for production of methane from hard coal mines in Romania. It was concluded that a key requirement was to identify sources of finance sources to undertake studies regarding the recovery and utilization of methane from fan and degasification stations existing at mining units in operation as well as from abandoned mines.
38. Mr. Raymond Pilcher (Raven Ridge Resources, United States of America) discussed successful project development and the need to convince stakeholders that CMM is no longer an unconventional fuel source.
39. The meeting:
  - (i) Noted with appreciation the presentations provided.

#### **X. PROGRAMME OF WORK AND CALENDAR OF MEETINGS (Agenda Item 9)**

40. The secretariat summarized the discussions on the key activities for the Ad Hoc Group of Experts to focus on in its programme of work:

- (i) The UNECE secretariat will commence work on the extrabudgetary project “Development of Coal Mine Methane Projects in Central and Eastern Europe and the Commonwealth of Independent States”, directed at encouraging investment in CMM utilization projects;
- (ii) The Group of Experts, to the extent possible, will coordinate activities with the International Methane to Markets Partnership when opportunities arise offering useful synergies for both parties;
- (iii) To begin to address the issue of ownership, which was raised as one of the most significant barriers to further development of CMM activities/projects, a brief Ownership questionnaire will be prepared for countries to respond to;
- (iv) A technical task force/working group will be established to focus on methane drainage issues, including understanding the key technical barriers and possible responses to overcome those barriers. This task force will report to the Group of Experts;
- (v) The secretariat will explore the availability of extrabudgetary funding to finance the preparation of a CD-ROM to promote the benefits of investing in CMM projects. During the meeting it was highlighted that the CD-ROMs previously prepared for the Energy Efficiency 21 Project are very attractive and effective tools for conveying the benefits of this type of programme;
- (vi) The secretariat will explore opportunities to organise CMM-related workshops in 2005/2006 following the offers from Poland and Ukraine to host events in 2005/2006.

41. The meeting:

- (i) Agreed that its programme of work for the coming year should seek to focus on the key activities highlighted by the secretariat, notably those related to developing the capacity of the mining industry and others to understand and apply the financial engineering necessary to develop bankable CMM projects, whilst also identifying and seeking to overcome the regulatory and technical barriers; and
- (ii) Noted that the second session of the Ad Hoc Group of Experts on CMM is scheduled to be held in Geneva, 15-16 November 2005.

## **XI. OTHER BUSINESS (Agenda Item 10)**

42. The secretariat advised the meeting that the documentation for the session had been posted to the website and presentations made during the meeting would become available shortly on the UNECE website at: <http://www.unece.org/ie/se/coal/cmm.html>.

## **XII. ADOPTION OF THE REPORT OF THE FIRST SESSION (Agenda Item 11)**

43. It was agreed that a concise report of the session focusing on the conclusions and recommendations would be prepared by the secretariat and circulated to the Bureau of the Meeting for approval, upon which it would be circulated to member countries.

**ANNEX**

**AD HOC GROUP OF EXPERTS ON COAL MINE METHANE**

**DRAFT TERMS OF REFERENCE**

(revised 6 December 2004)

The Ad Hoc Group of Experts on Coal Mine Methane, an intergovernmental body launched in December 2004 to specifically support the activities of the Ad Hoc Group of Experts on Coal in Sustainable Development in the area of coal mine methane (CMM), is established for a period of two years by the Committee on Sustainable Energy. The Ad Hoc Group of Experts will carry out, under the Committee's guidance, activities related to development and profitable recovery and use of CMM and abandoned mine methane (AMM), with a specific focus on the three pillars of sustainable development: economic, social and environmental – recovery and use of CMM otherwise emitted mitigates climate change, improves mine safety and productivity, and generates revenues and cost savings.

The tasks of the Ad Hoc Group of Experts are:

- (a) to promote and provide support where applicable to the UNECE extrabudgetary project on “Development of Coal Mine Methane Projects in Central and Eastern Europe and the Commonwealth of Independent States (CIS)”. This project, which is financed by the United States Environmental Protection Agency (US EPA) and the UN Foundation, will run for three years commencing in 2005;
- (b) to seek to facilitate financing of CMM projects in Central and Eastern Europe and the CIS, including through actively engaging in a dialogue with the international finance community to understand their needs and the barriers to funding of CMM projects in this region;
- (c) to provide a forum for exchange of information and experience on ongoing activities in the area of CMM development and for enhanced collaboration and cooperation thereof;
- (d) to identify and seek to mitigate the problems associated with the creation of incentives for CMM recovery;
- (e) to establish a clear link between the economic benefits and the mining of gassy coal seams based on the safe drainage and use of the gas, and to facilitate this through the establishment of a dedicated Task Force with membership from the technical, business and regulatory communities;
- (f) to explore opportunities for the CMM sector, in particular in UNECE member States with economies in transition, to participate in and benefit from the various public and private greenhouse gas emissions markets;
- (g) to identify any significant new developments affecting CMM, in particular in UNECE member countries; and
- (h) to seek to strengthen inter-agency cooperation and to cooperate and collaborate with all stakeholders, including other governmental and non-governmental organizations and the business community/private sector, in order to realise the above objectives.