



Methane to Markets

GENEVA, SWITZERLAND
27-28 APRIL 2005

MEETING MINUTES

Summary of Key Discussion Points and Conclusions

The United Nations Economic Commission for Europe (UNECE) hosted the second session of the Coal Mine Subcommittee (CMS) of the Methane to Markets Partnership on 27-28 April 2005 at the Palais des Nations, the European headquarters of the United Nations located in Geneva, Switzerland. The meeting provided an open dialogue and discussion forum. The following Partner countries participated: Australia, China, Italy, Japan, Nigeria, Russia, Ukraine, United Kingdom, and the United States. Observer delegations from Germany, Czech Republic, Poland Romania and Slovakia also attended in addition to members of the Project Network from a broad range of countries. (See annex II for list of attendees)

The committee reviewed progress on the activities since their first meeting in November 2004, identified program needs, and drafted the CMS Action Plan. (see Annex 1 for a listing of activities in the draft Action Plan). The final Action Plan for the CMS will be submitted to the Methane to Markets Steering Committee prior to the next ministerial meeting to be held in November 2005.

Many of the Partner country profiles for coal mine methane (CMM) recovery and utilization had been completed. Based on these profiles and discussions among partner countries and the Project Network members mine safety, energy utilization, and applications to methane reduction strategies through market-based instruments continue to be priority focus areas for CMM projects. A number of key implementation issues and program needs emerged from the meeting discussion which helped to define and set activities for the Coal Subcommittee Action Plan. Following is a summary of each of these key discussion areas and the concrete activities identified in the Action Plan as a result of the discussion.

Information on global CMM project technologies, results, opportunities, and needs:

While the country profiles provide significant insight into CMM activities and projects, there was widespread recognition that there needs to be active mechanisms for transferring information on project summaries and results, technology descriptions, feasibility studies, financial opportunities, and project development needs. The draft Action Plan proposes a number of activities to begin to address these needs including:

- (i) a global overview of CMM opportunities;
- (ii) development of a comprehensive coal subcommittee website to facilitate access to available tools and clearinghouses;

- (iii) global and regional technical workshop planning;
- (iv) implementation of a proposed mechanism for Project Network members to submit project ideas; and
- (v) a workplan for a commercial-oriented ‘project exhibition’ or ‘prospect expo’ in 2006.

Also, the Administrative Support Group (ASG) has initiated an overarching outreach and communication plan that includes a re-developed and comprehensive Methane to Markets website that will facilitate dialogue and exchange of information among Partners and Project Network members.

Legal and legislative requirements surrounding ownership of CMM gas: Both country delegates and Project Network members expressed a need for more information and guidance on the legal principles and legislative procedures of ownership in each country. The committee recognized is the great diversity amongst countries in terms of gas ownership, emissions reduction credit ownership, mineral licensing, product royalties, contract procedures, and the basic legislative process for permitting and approving projects. This is a significant hurdle to overcome in some cases, and the discussion highlighted the need for a systematic review of permitting the requirements in each Partner country. Thus, as a part of the Action Plan, the committee agreed to develop a summary report on ownership issues in Partner countries; however, the committee members agreed that it should be left to each country to determine whether they will seek assistance in addressing any legal, policy, or market issues within their country.

Uniform technical standards and terminology: The group expressed a strong desire for a uniform set of technical definitions and measurement standards, with language translations. Practical experiences with non-uniform terminology and standards has resulted in difficulties in comparing CMM project results across countries and even within countries, in setting legal frameworks under which projects operate, and in reporting and describing project technologies and conditions. The committee agreed to convene an expert group to develop a guidance document on uniform technical standards and definitions as a part of the Action Plan. It is notable that some countries may not have the flexibility to alter the terminology, thus the committee agreed to the creation of a guidance document rather than binding standards. Several committee members and Project Network members also noted that such an endeavor require time and resources and requested that sufficient resources be committed to successfully complete the task. Based on its experience in developing the UN Framework Classification for Fossil Energy and Mineral Resources, the UNECE offered to lead this effort under the leadership of the UNECE Ad Hoc Group of Experts on Coal Mine Methane.

Business planning and investor guidance for CMM projects: Project Network participants expressed a need for tools that help to connect project developers, investors, and resource owning companies. Pre-feasibility study guidance that provides “rules of thumb” through basic financial models or checklists was suggested as a way to help prepare first-stage business portfolios to build investor confidence in a project. The possibility of establishing project criteria to define a project in terms of qualitative and

quantitative measures was also raised. A number of countries offered to share the results of feasibility studies and demonstration studies to help build reference points for financial planning guidance. For the Action Plan, the committee agreed that a global report on financing considerations and investor profiles for individual countries should be developed. Members of the Project Network agreed to lead this activity in coordination with Partner country representatives.

Quantitative emission reduction goals for CMS programs and/or projects:

There was much discussion concerning the need for and feasibility of setting emission reduction goals for both the CMS work program as a whole, and as part of individual project criteria. While there was general agreement regarding the importance of setting quantitative goals, there was no clear consensus among Partner countries on what amount and whether quantitative goals for the CMS are practical at this point in time. Suggestions ranged from setting only qualitative goals, to setting progressive reduction targets in the out years. Citing the early stages of CMS project development, the absence of defined project criteria, and the lack of assigned resources dedicated to project development at this point, a number of participants felt that it may be premature at this stage to set quantified reduction goals. For the short term, it was decided that a framework discussion paper on setting quantitative and qualitative CMS goals, with consideration to the need for CMS project criteria, would be included in the Action Plan.

In addition to the specific items addressed above, Partner countries agreed to actively recruit members for the Project Network in their own countries. It was recognized that the Project Network is a vital source for project ideas, technology solutions, business development, and communication and outreach. The agenda dedicated a significant amount of time to an open dialogue with Project Network participants which resulted in important ideas and contributions to the Action Plan, particularly in the area of developing commercially viable projects.

The following sections provide more details of the meeting discussion and each of the main topic areas that were considered in the agenda.

Opening Remarks and Introductions

Co-Chair Clark Talkington of the US, and Vice Chair Huang Shengchu of China, acting as Co-Chair in place of India which was absent, called the meeting to order at 10:00 on 27 April 2005 in Salle VII at the United Nation's Palais des Nations in Geneva, Switzerland. The meeting was hosted by the United Nations Economic Commission for Europe. The List of Attendees is included as Annex II to this report.

Mr. George Kowalski, Director of the United Nations Economic Commission for Europe, Industrial Restructuring, Energy and Enterprise Development Division (UNECE IREEDD) delivered opening remarks. Mr. Kowalski commented on how the Methane to Market Partnership's goal of recovery and usage of coal mine methane is synergistic with UNECE's similar goals of sustainable energy development. Mr. Kowalski described the UNECE's

program for coal mine methane that was launched in 2004. The UNECE program is focused on facilitating the development of coal mine methane projects in Eastern and Central Europe and in the Commonwealth of Independent States. The UNECE program includes the formation of an ad-hoc group of experts in the coal mine methane field, which recently met in December of 2004. Also, the program focuses on mine safety issues, and a task force has been formed to address this issue with an upcoming meeting scheduled for April 29, 2005. In closing, Mr. Kowalski emphasized how the Methane to Markets and the UNECE programs share the goals to make mines safer and to recover methane gas for the benefits of local communities and national governments and that UNECE looks forward to supporting the efforts of the CMS.

Introductions by each attendee highlighted the range of applications, based on national circumstances, for CMM project consideration and pointed to topic areas that would be addressed later in the meeting. The areas of interest included: drainage technology, energy utilization technologies, mine safety, commercial viability and profitability, investment and finance mechanisms, integration with flexible mechanism options under the Kyoto Protocol, and technology transfer.

After adoption of the meeting agenda by the CMS participants, Mr. Talkington emphasized how this meeting was designed to allow an open dialogue and discussion forum from which an action plan and associated program of work can be established. Mr. Talkington stated that the formal Action Plan for the CMS is to be submitted to the Methane to Markets Steering Committee before November, 2005, the scheduled timeframe for the next ministerial and CMS meetings.

Methane to Markets Partnership Update

Erin Birgfeld, head of the Methane to Markets Administrative Support Group (ASG), provided an update on activities since the last CMS and Methane to Markets Ministerial meetings held in November 2004. Since that meeting subcommittees have been established for all sectors. The number of Partner countries has grown to a total of 15 at present with South Korea recently joining, and there has been interest expressed by other countries to join the Partnership. The next Steering committee meeting will be held in Buenos Aires, Argentina, 2-4 November 2005. The technical subcommittees will also meet during this time.

Ms. Birgfeld re-stated the Steering Committee's charge to the technical subcommittees from the November 2004 meeting which was to develop a sector specific Action Plan for the next ministerial meeting. Subcommittees are also charged with preparing progress reports on activities, reporting on milestones, and contributing to technical outreach activities.

An update on the Outreach and Communication Plan was also provided. The plan is a partnership-wide plan and is centered on a comprehensive, web-based platform. The website will contain fact sheets, quarterly updates, meeting reports, links to pertinent tools and resources, reports and database products resulting from subcommittee Action Plans, and the newly proposed Project Network input mechanism. The United States has proposed a mechanism for the technical subcommittees to solicit and receive project ideas from Project Network members. Project Network members can submit a project proposal form which will be made available on

the web site. The proposal form gives Project Network members an avenue from which to suggest new project ideas, and to increase communication with other Subcommittee members who may be interested in pursuing new project development. This mechanism will be implemented on a provisional basis until the next Steering Committee meeting in November 2005 at which time the Committee can review the utility of this mechanism and recommend changes as necessary.

Review of the Year 1 Program of Work

The committee reviewed the past year's activities. The discussion was organized around the following focus areas defined previously in the 1st CMS meeting: (i) gas ownership; (ii) incentives to spur use of CMM; (iii) carbon markets and transactions; (iv) development of uniform technical standards and terminology for CMM projects; (v) identification of successful CMM projects in member countries and dissemination of the lessons learned; and (vi) at least one technology transfer/policy symposium.

Gas ownership, and the related legal and legislative principles that define it, was a topic of high interest to both country delegates and Project Network members. While not a problem in all countries, the question of who owns the coal, and in turn, the potential GHG reduction credits and energy offsets can create real hurdles to project development.

It was generally recognized that legal definitions and legislative procedures are inherently different from country-to-country and that the goal of the CMS should be to collect information on each country's ownership systems to better prepare project developers and investors. Suggestions for communicating this information included a summary of 'lessons learned', example pitfalls to project development, standard operating procedures for a given country, and investment guidebooks. Also, it was suggested that each Partner country can respond to possible hurdles by initiating dialogue and considering changes within their country, possibly through workshops and raising awareness to their legislatures.

It was decided to table the discussion on "incentives to spur CMM" due to the complexity and diversity of these programs. As they are very much a function of each country's unique situations, further consideration of incentives will require more information on the details of each type of program and the circumstances surrounding their use. This was identified as a long-term activity for the CMS.

The topic of carbon markets and transactions was discussed in the framework of developing CDM and JI projects. Project network members pointed to carbon credits as one of the most important leverage points in project proposals, and that a significant portion of CMM projects will be tied to the carbon market. However, experience of some of the Project Network members has shown delays in the registering and processing procedures for CDM and JI projects. These delays have created uncertainty in the investment community for some CMM projects. A suggested action item for countries participating in the Kyoto Protocol was to raise this issue with the CDM board. A related issue is the interface between Methane to Markets and the Kyoto Protocol. Specifically, many committee and PN members wanted to know whether US participation in Methane to Markets and possible support of project development through the

Partnership would preclude those CMM projects and activities from being CDM or JI projects. The US delegation responded that US-supported projects and activities could still participate in Kyoto markets as part of a larger financing portfolio, but that the US would not be entering the Kyoto and Kyoto-related markets.

The development of uniform technology standards and definitions was unanimously identified as a priority need by country delegates and Project Network members. Examples of non-uniformity were brought up to highlight this need. Measurements of carbon flow, and the conditions under which they are taken, can markedly affect the value of the gas when the uncertainty of the measurements are considered. Consistency in qualifying reductions under Kyoto mechanisms was raised as another challenging task. The differences in terminology due to various working languages are also an impediment at times to accurately reporting and conveying project details and results. It was recognized, however, that some legal terms and definitions are a product of a country's unique ownership and operating systems. Also, it was mentioned that it may be difficult to change long-standing industry terminology.

Overall it was agreed that the development of uniform technology standards and definitions was a worthwhile activity for the CMS Action Plan. The need to establish a qualified working group to address the issue was raised. It was decided that through a coordinated effort with the UNECE Ad Hoc Group of Experts on CMM, a joint working group could be established to develop a report on uniform standards and terminology for CMM projects. The UNECE has substantial experience in this area having coordinated the development of the UN Framework Classification for Fossil Energy & Mineral Resources. Most country members agreed to support this effort 'in kind' and a number of Project Network members agreed to participate on the working group. The UNECE agreed to lead the effort which would also facilitate eventual translation of the report into pertinent languages. Both committee members and Project Network members, however, were clear that such an undertaking will require time and financial resources to be successful.

The identification of successful CMM projects and lessons learned was addressed through proposed Action Plan activities for a global project database, a summary report of ownership issues in each country, and a guidance document on financial planning for CMM projects in different countries. Many of these issues had been touched on through the development of the country profiles and input from Project Network members.

The meeting discussion did not confirm a technology transfer or policy symposium in the short term. However, a number of suggestions were put forth regarding the possibility of a project exhibition and Ukraine indicated they will likely host a major CMM seminar in the Eastern Ukraine in the near future, possibly as soon as the second quarter in 2006. It was decided that planning would begin in the short term for the possibility of holding a commercially-oriented Project Exhibition, or Prospect Expo as they are sometimes called, in 2006. A number of countries and Project Network members agreed to provide support in the planning process for the project exhibition.

Future Program of Work

The consensus opinion amongst the participants was that future program areas should focus on real reduction goals through project implementation, and that implementation will rely on developing a strong interaction between country Partners and Project Network members. Meeting participants suggested a number of ways to ensure this interaction occurs, including:

- Survey of countries and Project Network to access project needs, interests, and capabilities;
- Electronic bulletin board or list-server to facilitate dialogue among CMS members;
- Database of global projects that lists critical information associated with the project such as emission reductions, up-stream and down-stream technologies utilized, measurement protocol, and contact information.
- Development of a central CMS clearinghouse, regionally-oriented CMM clearinghouses, commercial/private sector clearinghouses, or providing ready access to existing CMM clearinghouses;
- CMS-specific website that serves as a focal point for program inquiries, dissemination of information, and linkages to tools and resources;
- ‘Two-way’ workshops and seminars that have both government and industry involvement, and which cover ‘cradle-to-grave’ steps in project development process.

Project facilitation and development was also identified as a priority for the future program of work. Participants consistently stated the need for building reference cases of feasibility studies for the various technologies and CMM project types. Pilot projects and demonstrations were also identified as critical components of project development, particularly in developing countries where coal mines have little experience with the proposed technologies. It was suggested as a starting point that CMS members share feasibility studies and the results of demonstration projects with other members to begin building a reference resource for this information.

A number of Project Network members also raised the need for ‘pre-feasibility’ screening criteria, essentially ‘rules-of-thumb’ that would help investors and project developers get a handle on the basic financial considerations for the project. It was pointed out that banks and other financiers often do not need full feasibility studies up front, but they want to see enough information to make a basic financial determination on the reliability and worthiness of the project.

Action Plan & Reporting Progress

The committee agreed that Mr. Talkington and Mr. Huang will take the lead in drafting a brief outline of agreed-upon activities in the remaining six months of Year 1. This will constitute the basis of the CMS’s Action Plan. The memo will be circulated to the other committee members and PN members in late May or early June for their review and comment before being sent to the ASG for distribution to the Steering Committee.

A short memorandum on progress as a result of activities and meetings to date will be drafted by the CMS co-chairs and forwarded to the Methane to Markets Steering committee prior to the next Ministerial meeting.

Plans for Next Steering Committee Meeting

The next CMS meeting will be held in conjunction with the next Methane to Markets Ministerial and Steering Group meetings in Buenos Aires, Argentina in November 2005. Immediate items for consideration in planning the next meeting were identified:

- Finalize CMS Action Plan, the basis of which is provided in Addendum 1 to this report;
- Consolidate country profiles and prepare post-meeting drafts to address information gaps and needs (e.g., more information on legal/legislative requirements);
- Partner countries should focus on actively recruiting and engaging Project Network members;
- Compile results of lesson learned from projects that have resulted from on-going bilateral and multi-lateral projects

Closing Comments and Adjournment

The Co-Chair provided the opportunity for each delegation, member countries and observer countries, to provide brief closing remarks. Following the closing remarks, Mr. Talkington expressed his appreciation for the excellent performance of the UNECE in hosting the meeting and the active participation of all participants. Mr. Talkington then adjourned the meeting at 17:45 on 28 April 2005.

Country Updates

Country-specific profiles were identified in the first CMS meeting as one of the foundation elements for developing the Action Plan and identifying topic area priorities. A country-by-country review of CMM program activities by the country delegates highlighted the range of applications and considerations for CMM projects based on national circumstances and pointed to topic areas that would help set the draft Action Plan activities. Key application areas for CMM projects identified in the review included:

- Mine safety;
- Reducing methane emissions from abandoned mines;
- Improving the environmental management of the coal-to-energy chain;
- Improving capacity for power generation and distribution;
- Joint Implementation (JI) and Clean Development Mechanism (CDM) project development under the Kyoto Protocol; and
- Market-based initiatives to reduce methane emissions.

Following is a brief summary of the attending Partner and observer country delegates' review of their current CMM programs as presented in their opening remarks, along with perspectives on CMS program issues and needs. The full-length texts of each Partner country's profile were made available at the meeting.

Partner Countries

Australia: The delegate for Australia described their active partnership roles in both bilateral and multilateral arrangements in the areas of energy efficiency improvements, hydrogen power development, and Methane to Markets. Within the country, partnerships between government, commercial, and research sectors along with their Coal 21 Plan strategies and GHG Abatement Program are advancing new technologies for the ‘greening’ of coal. Their experience with CMM projects stressed the importance in being responsive to stake holders, providing low-cost measures for ventilation methane use, and disseminating and employing new technologies.

China: The delegate from China explained how they have recently moved their CMM program from the department responsible for GHG emissions to the Bureau of Energy for the purposes of implementing Methane to Markets initiative in China. Since 1997, significant investments in drainage and utilization of CMM have occurred, with 200 coal mines having established recovery operations. Just recently in 2005, 3 billion RMB (US\$361 million or Euro 300 million) have been dedicated by the central government to support mine safety projects, along with significant investment from coal mining companies and local governments.

Italy: The delegate from Italy described how they currently have no dedicated domestic policy to drain and capture CMM, but they eagerly anticipate establishing such a program in the near future. Their most important immediate goals are to locate methane reserves in underground coal mines in the country, and to identify most appropriate technologies for their situation, and to establish reference cases from around the world that they can use to help establish their own CMM program.

Japan: The delegate from Japan described their substantial experience in developing private sector opportunities and incentives for CMM project development. Their experience stressed the importance of involving stakeholders at both upstream (e.g., coal mine companies) and downstream (e.g., engine, turbine, and boiler manufacturers) sides of project development. Due to the decreased coal production in their own country, they have shifted their focus to technical cooperation overseas, through demonstration and feasibility projects in such countries as China and the Ukraine and through CDM project development efforts.

Nigeria: The delegate from Nigeria described how they are currently in process of developing their country profile for CMM activity. Their coal mining industry is the second oldest in Sub-Saharan Africa, but has not operated continuously through that historical period. However, the last few years have seen coal production increase, with the potential for more production in years ahead. Nigeria sees CMM as a means to improve power generation and distribution in the country, and is open to partnerships to increase the potential for CMM recovery and utilization.

Russia: The delegation from Russia described their long history in CMM program activities. Their 20-year experience in CMM research and project development has focused on areas such as methane recovery from coal, penetrability of coal seams, advanced processes for removing trace elements from methane gas stream, methane oxidation processes, industrial security in mines, and standards setting for mineral resources and uses. CMM is covered in Russia’s Plan of Action under the recently ratified Kyoto Protocol and will be included in Joint Implementation project development efforts. It was also noted that CMM has been classified as an environmental pollutant with associated fees set for methane emissions.

Ukraine: The delegate from Ukraine described a number of CMM programs that are currently getting underway as part of renewed activity in this area. CMM extraction through the use of high-speed drilling techniques and underground degasification are a couple of examples of new areas of research and development. Mine safety was identified as a high priority area for Ukraine due to experiences with explosions, and they are looking to build on the world experience in this area to bring their protocol up to international standards. The Ukraine is also planning to host a major seminar in the Eastern Ukraine in the near future on the subject of coal mine production and CMM.

United Kingdom: The delegate from the United Kingdom highlighted their focus areas of energy usage for CMM and methane abatement for abandoned mines, an area they have particularly lengthy experience in due to the large number of abandoned mines in the UK. They are now broadening their experience into all aspects of developing CMM as part of market-based instruments within CDM and emission trading mechanisms. Specifically regarding the Methane to Markets initiative, they have been very active in recruiting Project Network members into the CMS.

United States: The United States delegate described their interagency working group for the CMM program, involving the US Environmental Protection Agency, US Agency for International Development, and the US Department of Energy. This group is developing the CMM program strategies for 2005 and beyond. The US has a very pro-active coal mining industry in terms of CMM project development, with over 30 CMM projects in place. In the US, CMM is currently used primarily for natural gas pipeline injection, with lesser quantities used for heating and electricity. The US has been active in bilateral partnerships with China, Russia, and Ukraine in developing technology clearinghouses and supporting CMM utilization workshops. The US is also currently working with the Government of India to establish a clearinghouse in India.

Observer Countries

Germany: The delegate from Germany described their extensive experience in CMM use for energy purposes. The use of CMM for energy use is being promoted by legislation in their country for renewable energy alternatives. The German delegation announced that Germany is considering joining the Methane to Markets Partnership.

Poland: Poland is the largest producer of coal in Europe, with more than 20 of the gassiest mines. They are currently working on a number of CMM program areas, including drainage methods, ventilation air methane technologies, and enhanced coal bed methane recovery through gas injection. Their current projects cover downstream uses for heat, electricity, and air conditioning.

Romania: The delegate from Romania described that they currently have in place a \$200,000 (US) CMM project and have 2 more projects in the pipeline. They are particularly looking for establishing guidelines for project criteria.

Slovakia: The delegate from Slovakia described their country as a relatively small coal producer, primarily occurring at open mines, and is thus not comparable to some of the large coal producing countries in terms of CMM potential. However, methane from abandoned mines is a challenge in Slovakia and they are interested in hearing the experience of others in this area.

Annex I

Draft Action Plan for Coal Subcommittee

Short Term Activities	Timeline	Lead	Others
Compile available information on ownership issues in Partner Countries <ul style="list-style-type: none"> • From country profiles • Input from Project Network 	Nov 2005	Talkington (US) Schultz (UK PN)	Input from Country Profiles and Project Network members
Develop a comprehensive Coal subcommittee website <ul style="list-style-type: none"> • Create a portal to CMM tools and websites • Balance quantity/quality of information with ease of use 	Nov 2005	Birgfeld (ASG) Mallet (Australia) Sloss (IEACCC)	Review by Committee members and Project Network members
Develop guidelines and criteria for Partnership Activities (e.g. workshop, technical assistance) in Coal Sector <ul style="list-style-type: none"> • Example – Involves at least two Partnership countries, etc 	Dec 2005	Franklin (US) Karas (Australia)	Review by Committee members and Project Network members
Set subcommittee goals /Determine need for project criteria <ul style="list-style-type: none"> • Draft memo to frame discussion • Consider quantitative and qualitative goals • Define criteria for counting project-specific emission reductions toward goals 	May 2005	Weavers (Australia) Franklin (US) Talkington (US)	Griffiths (UNECE) Mader (Germany PN) Vitchev (UK PN) Pilcher (US PN) Bose (US PN)
Develop global overview of CMM opportunities <ul style="list-style-type: none"> • Key components of the action plan Database of projects and project opportunities	Dec 2005	Talkington (US)	Review by Committee members and Project Network members
Partners to actively recruit members of the Project Network in their own countries	On-going	All	
Plan regional technical workshops	Early 2006		None identified at meeting
Develop workplan for project expo (in 2006)	Early 2006	Pilcher (US PN) Karas or Weavers (Australia) Franklin (US)	Thompson (UK PN) Sloss (IEACCC) Griffiths (UNECE)
Develop uniform technical standards and terminology	Work group formed by Dec 2005	Griffiths (UNECE) Mallet (Australia) Franklin (US)	Huang (China) Italy Japan Russian Federation Several Project Network members
Identify Sources of Finance and build capacity	Early 2006	Vitchev (UK PN) Talkington (US)	Huang (China) Griffiths (UNECE)

Longer Term Activities/Goals

- Feasibility Studies
- Identify specific project opportunities
- Identify specific project financial mechanisms
- Study Tours

Annex II

Meeting Attendees

Partner Country Delegates

Australia

John Karas, Department of Industry, Tourism, and Resources
Cliff Mallett, Commonwealth Scientific and Industrial Research Organisation
Andrew Weavers, Department of the Environment and Heritage

People's Republic of China

Huang Shengchu, China Coal Information Institute (Vice-Chair)

Italy

Giuseppe Deriu, Carbosulcis, SpA
Cristina Deidda, Carbosulcis SpA
Alessandra Madeddu, Sotacarbo SpA
Fabrizio Pisanu, Carbosulcis SpA

Japan

Hideo Shindo, New Energy and Industrial Technology Development Organisation
Kazunori Fukasawa, New Energy and Industrial Technology Development Organisation
Hiroaki Hirasawa, Japan Coal Energy Center

Federal Republic of Nigeria

Humphrey Orjiako, Embassy of Nigeria, Washington DC

Russian Federation

Elena Baranova, Institute of Innovative Technologies
Vladimir Berdin, UNDP/GEF Project
Sergey Shumkov, Academy of Mining Sciences
Sergey Slastunov, Moscow State Mining University
Stanislav Zolotykh, State Enterprise for Mines Restructuring

Ukraine

Yuriy Bobrov, Association of Mining Towns of Donbass
V'vacheslav Bragin, Novogorlovskiy MachZavod
Inna Korona, Association of Mining Towns of Donbass

United Kingdom

Tim Dixon, Department of Trade and Industry
Kevin Pickup, The Coal Authority
Cameron Stewart, DTI Oil and Gas, United Kingdom

United States of America

Clark Talkington, U.S. Environmental Protection Agency (Co-Chair)
Barbara De Rosa-Joynt, Department of State
Pamela Franklin, U.S. Environmental Protection Agency

Project Network Members

Trevor Stay, Anglo Coal, Australia
Roland Mader G.A.S. Energietechnologie GmbH, Germany
Richard Mattus, MEGTEC Systems AB, Sweden
Charlotte Griffiths, U.N. Economic Commission for Europe
Karl Schultz, Energy Edge, United Kingdom
Lesley Sloss, IEA Clean Coal Centre, United Kingdom
Richard Thompson, Norwest Corporation, Ltd., United Kingdom
Ranendra Bose, Bose Research and Development Inc., United States
Sadhona Bose, Bose Research and Development Inc., United States
Raymond Pilcher, Raven Ridge Resources Incorporated, United States
Ranjana Sagar, Bose Research and Development Inc., United States
Deltcho Vitchev, Renaissance Finance International, United Kingdom
Stanislav Vajs, VIP, Ltd., Czech Republic

Observer Country Delegates

Martin Kloz, Ministry of the Environment, Czech Republic
Heiko Zander, Federal Ministry of Economics and Labour, Germany
Jacek Skiba, Central Mining Institute, Poland (and Project Network member)
Corneliu Popescu, Ministry of Economy and Commerce, Romania
Constantin Lupu, Petrosani, Romania
Aurelia Surulescu, National Hard Coal Company S.A., Romania
Daniel-Lucian Surulescu, National Hard Coal Company S.A., Romania
Rudolf Sembera, Ministry of Economy, Slovak Republic

Other Attendees

Clemens Backhaus, Pro2 Anlagentechnik GMBH, Germany
Franz Josef Besselmann, Minegas GmbH, Germany
Victor Boespflug, Interessenverband Grubengas e.V., Germany
Gerd Wagner, Mingas-Power GmbH, Germany

Administrative Support Group/Meeting Support

Erin Birgfeld, Environmental Protection Agency, United States
Joseph Mangino, Eastern Research Group, United States
Lauren Lariviere, Eastern Research Group, United States

Annex III

Acronyms

ASG	Administrative Support Group or Secretariat
CDM	Clean Development Mechanism of the Kyoto Protocol
CMM	Coal Mine Methane
CMS	Coal Mine Subcommittee (of the Methane to Markets Partnership)
GHG	Greenhouse Gas
IREEDD	Industrial Restructuring, Energy, and Enterprise Development Division of the UN Economic Commission for Europe
JI	Joint Implementation mechanism of the Kyoto Protocol
PN	Project Network
UNECE	United Nations Economic Commission for Europe