

4th Session of the Coal Subcommittee
Tuscaloosa, United States
22 - 23 May 2006

Meeting Minutes

Summary

The fourth session of the Coal Subcommittee was held on 22 – 23 May 2006, in Tuscaloosa, Alabama, USA. During this meeting, delegates reviewed the status of planned activities from the existing Subcommittee Action Plan, presented updates on country-specific activities, heard from Project Network members on their emerging needs and priorities, and agreed on new activities for an updated action plan. Another major focus of this meeting was planning for activities to support the Methane to Markets Partnership Expo to be held in the fall 2007 in Beijing, China.

In developing their latest Action Plan activities, the Subcommittee members continued to focus on country-specific data and technology needs, overcoming key barriers to project development, and increasing outreach to the Project Network. The revised Action Plan is based on experiences from the past years' activities, the latest input from the Project Network, and the Steering Committee charges. The Subcommittee considered all of these inputs in identifying Action Plan activities that will help prepare for the Partnership Expo in 2007. The Partnership Expo will be a significant step in accelerating specific projects and technologies and is a critical juncture point for Project Network involvement.

Opening Remarks and Introductions

Co-Chairs Pamela Franklin of the United States and Subrata Chaudhuri of India, along with Acting Vice Chair Liu Wenge (acting for Mr. Huang Shengchu, who was unable to attend) of China, opened the meeting on 22 May 2006. The meeting was attended by Partner country delegates, Project Network members, and staff from the Administrative Support Group (ASG). A list of attendees is included as Annex 1 to these minutes.

The Co-Chairs reviewed the meeting goals and the charges from the Steering Committee that were presented at the last Subcommittee meeting in Buenos Aires, Argentina, in November 2005. One primary goal was to discuss the status of several projects and activities. The Subcommittee reviewed the standing charges from the Steering Committee, which include moving from a global to a country-specific focus, planning for the Partnership Expo, developing key documents and resources with translations, and preparing effective outreach materials for expanding the Partnership.

Dr. Franklin reviewed the meeting's agenda, which included the following discussion areas:

- 1) Status of existing items in the action plan, including updates on country-specific activities
- 2) Financing opportunities for coal mine methane (CMM) through the World Bank
- 3) Update on activities and priorities from the Project Network
- 4) Planning for the Partnership Expo
- 5) Updating the action plan with new activities for the current year

She asked for comments on the agenda, and received a request from the Australian delegate to include a specific discussion on the CMM technology database that is under development. Dr. Franklin agreed that this should also be included and time would be allocated in the meeting to cover this. With no further comments, the agenda was adopted.

Updates on Subcommittee Activities

Progress has been made on a number of Subcommittee Action Plan activities since the last Subcommittee meeting in Argentina in November 2005. Reviews and updates on these activities were presented at the meeting by the lead delegates or Project Network members involved with the activities. Following is a summary of key points from those presentations. Detailed presentation files are posted on the Methane to Markets web site, and results of these activities are integrated into the Subcommittee Action Plan.

Regional CMM Workshop in Beijing, China. Hideo Shindo of the New Energy and Industrial Technology Development Organization (NEDO) summarized the Methane to Markets Partnership Regional Workshop that was held in Beijing on December 2, 2005. The workshop focused on CMM project opportunities in China and included an open forum discussion of CMM experiences and needs in Argentina, India, Nigeria, Russia, and Ukraine. The workshop was hosted by the China Coal Information Institute and China Coalbed Methane Clearinghouse and was held in conjunction with the 4th International Symposium on Coalbed Methane/Coal Mine Methane in China. The workshop presented the first opportunity for some developing countries to learn from others' experiences with CMM project development and to share information on their needs and plans. It also addressed one of the main Subcommittee Action Plan elements: to overcome barriers associated with technology transfer.

Global Information Products and Activities. There are a number of ongoing Subcommittee activities in response to short-term action plan objectives to develop global products and guidance materials:

- **CMM Overview Document.** Barbora Jemelkova of the USA presented an update on the preparation of the document *Global Overview of CMM Opportunities*, which includes 32 country profiles. In addition to identifying CMM opportunities in the countries, the document describes challenges to gas recovery and utilization, presents tables that compare data across countries, and discusses issues associated with abandoned mines. The document is in its final phase of development, with a draft version scheduled to be posted for comment in mid-June 2006 on the Methane to Markets Web site and a final document scheduled for release in July 2006.
- **Database of CMM Projects.** Ms. Jemelkova also described U.S. EPA's development of a Web-based global database of CMM projects. The draft database houses information on over 200 CMM projects around the world, with many more project-specific details than are available through either the country profiles or the CMM overview document. The objective is to create an active database that can be readily populated with project-specific details.
- **CMM Technology Database.** John Karas of Australia provided an update on the development of a CMM technology database. The draft database is organized around technology types (rather than on a country basis), such as those associated with the broader categories of capture/utilization, drainage/purification, ventilation air methane (VAM), and catalytic oxidation. At this point in time, Mr. Karas is asking for feedback from the Subcommittee on the draft database regarding format, subcategorization of technologies, and options provided. In finalizing the database, Mr. Karas recommended, the Subcommittee should consider integrating the results of the technology database with the U.S. EPA's CMM projects database. This cross-linking

would give project developers a useful tool for investigating and evaluating possible technology applications.

- **Regulatory/Gas Ownership White Paper.** Ms. Jemelkova provided an update on the U.S. EPA's work on a white paper covering ownership and regulatory issues in Partner countries. She stated that a questionnaire on this subject had gone out to Subcommittee members, and that a follow-up questionnaire will also be going out. The responses will be used to finalize the draft white paper, which is scheduled to be released in the fall of 2006.
- **United Nations Economic Commission for Europe (UNECE) Activities.** The UNECE has been actively involved in a number of CMM-related activities that are relevant to the Methane to Markets Partnership and specifically to the Subcommittee Action Plan. Co-chair Pamela Franklin provided an update on these activities on behalf of Clark Talkington of the UNECE, who was unable to attend.

The UNECE has been investigating the development of uniform technical standards and terminology, one of the Subcommittee Action Plan activities for overcoming the barrier of clarity in legal and regulatory issues. The investigation has focused on uniformity in terminology, as the issue of uniformity in technical standards has been determined to be much more impractical to address considering the country-specific differences in economic practices, social structures, and mining conditions. As part of the investigation, the UNECE has distributed a questionnaire through its Ad Hoc Group of Experts on Coal Mine Methane, within which suggested definitions for coal seam methane were proposed for comment. Using the results of the survey, the Ad Hoc Group of Experts will develop recommendations for uniform terminology and compare these with terms currently in use in different countries. A full report on the questionnaire results is planned for a June or July 2006 release.

The UNECE also held a financing workshop on January 31, 2006, in conjunction with its annual meeting of the Ad Hoc Group of Experts on CMM. The workshop covered institutional project financing, including the identification of key criteria necessary to finance CMM projects. A variety of presentation materials and products from the workshop are available on the UNECE Web site. In addition to this workshop, the UNECE has begun a project to support financing of CMM projects in central and eastern Europe and the Commonwealth of Independent States. It is anticipated that there will be workshops and regular updates on this project as it progresses; Subcommittee members should consult the project Web site for more information (<http://www.unece.org/ie/cmm/Welcome.html>).

The UNECE also plans to support a number of CMM technical workshops in the upcoming months, including ones in the Russian Federation (September 20–22, 2006), Ukraine (tentatively, first half of 2007), Poland (second half of 2007), and possibly Austria (June 6–7, 2007). Further information on these workshops can be obtained at the UNECE's Web site.

Update on the Asia Pacific Partnership Coal Mining Task Force

Alfred Whitehouse of the U.S. Department of the Interior, Office of Surface Mining, presented an overview and update on CMM-related activities under the Asia Pacific Partnership on Clean Development and Climate. The Asia Pacific Partnership, a multilateral effort to accelerate the development and deployment of clean energy technologies, includes Australia, China, India, Japan, South Korea, and the United States. Mr. Whitehouse described the CMM-related activities of the Asia Pacific Partnership's Coal Mining Task Force. He noted that the Coal Mining Task Force intends to complement, not duplicate, the efforts of the Methane to Markets Partnership. The Coal Mining Task Force is more

focused on “operations” than the impediments to CMM projects; accordingly, its planned activities included resource assessment, best practices for drainage/utilization, and technology demonstration. The Task Force plans to release a final Action Plan in August 2006.

Following Mr. Whitehouse’s presentation, the Subcommittee participants discussed how to work out complementary roles between the Methane to Markets and Asia Pacific Partnerships. There was general agreement that there will be opportunities to share information, and possibly more integrated activities to deliver and showcase CMM projects particularly in support of the Partnership Expo. There was a suggestion that the Methane to Markets Partnership may be the best avenue for delivering/distributing project information to a wider country audience. Mr. Whitehouse indicated that the Asia Pacific Partnership would likely support such information sharing. Recognizing the need to continue direct communication between the Partnerships to establish these complementary roles, Mr. Karas from Australia and Co-Chair Dr. Franklin (who is also a member of the U.S. Asia Pacific Partnership Coal Mining Task Force delegation) both plan to engage in discussions with the Coal Mining Task Force to identify cross-over opportunities.

Update on General ASG Activities

Erin Birgfeld, head of the ASG, provided an update on the most recent ASG activities. Ms. Birgfeld highlighted recent membership activities including Germany’s formal request to join the Partnership (possibly by July 2006) and the increase of the Project Network membership to over 300. Other recent ASG work includes the translation of a number of outreach materials into Russian, Chinese, and Spanish.

Ms. Birgfeld then demonstrated the ASG’s online draft project tracking system, showing the input forms and information needed for entries. When completed, this Web-based system will track Methane to Markets activities, advertise opportunities for projects, identify project needs and opportunities, and help to showcase projects in preparation for the Partnership Expo. It will also support the dissemination of tools, databases, and guidance materials. The tracking system is scheduled to be launched in the fall of 2006.

Subcommittee participants asked several questions about the proposed project tracking system as described by the ASG. Regarding a question on what information the Web site will actually display to readers (i.e., what will be shown as opposed to what is input), Ms. Birgfeld stated that all but the financial information will be displayed. In response to a question on what type of format is to be used for the field “estimated GHG reductions,” she said that the ASG needs to collect feedback on what is the most appropriate format for the reductions information. Another question concerned the mechanism for follow-up and how updates would be obtained; Ms. Birgfeld responded that this will be a challenge, and that it will rely on requests to the providers to regularly update their project information. She also brought up the possibility of a role for the ASG in collecting country updates to the system.

Mr. Karas of Australia raised a concern about the Subcommittee’s role in screening project information that is submitted to the tracking system. Would posting the information in the tracking system, he asked, be perceived as an “endorsement” of such project information or technologies by the Methane to Markets Partnership? This could be a concern where there are marginal or possibly inaccurate submissions. Members of the Project Network suggested one possible solution: include a technical review of submissions by sector teams from the Subcommittees in order to determine the reasonableness of the submitted data. No resolution was reached on this subject, but it was recognized as an important issue to consider as the system nears completion.

Financing CMM Projects

Mr. Kentaro Yabe of the World Bank Carbon Finance Unit presented a general overview on carbon financing, the world carbon market, and carbon finance in the CMM sector. Mr. Yabe described a number of the funds and facilities available through the World Bank, and described how the carbon market is currently proceeding. He noted the high prevalence of non-CO₂ gases in the market, as well as the relatively small number of CMM projects currently being funded through carbon finance mechanisms. He emphasized that until December 2005, there was no approved U.N. Clean Development Mechanism (CDM) methodology for CMM projects—a prerequisite for CDM project development. The recently approved CDM methodology (ACM0008), which incorporates recovery of both CMM from active mines and ventilation air methane (VAM), is expected to accelerate the development of CMM-related CDM projects. Mr. Yabe discussed a number of issues with CMM that still need to be resolved including: i) competition with other carbon funds that have primarily focused on other, non-CMM project types; ii) use of only one commercially available technology for VAM; iii) challenges procuring capital investments for CMM projects, which is the prerequisite for carbon financing; and iv) no existing approved methodology for capture and use of methane from abandoned mines (AMM).

After Mr. Yabe's presentation, the Subcommittee discussed how to use carbon financing to move projects forward. One possibility raised was submitting a AMM project methodology for CDM approval through the UNFCCC Secretariat's review board. Such a methodology might lead to more CDM project development in this area. Delegates familiar with the CDM process noted that when submitting a CDM method for approval, at least one project must be identified as part of the submission. No consensus was reached on pursuing this action immediately. The Subcommittee recognized that CDM is an important potential driver for CMM projects and that there may be some role for the Subcommittee in preparing measurement, and monitoring guidance that could be applied to CDM project development.

Members of the Project Network asked Mr. Yabe whether there are minimum or maximum sizes of projects necessary for funding under World Bank mechanisms, and whether there are set percentages of equity investment required of project developers. Mr. Yabe stated that different funds are oriented to different-size projects. The Community Development Carbon Fund, for example, is targeted specifically to small-scale projects; most of the other funds tend to handle projects with large potential for certified emission reductions (CERs), which makes them more efficient. Mr. Yabe stated that one way to increase efficiency for smaller project development is to "bundle" smaller projects into one carbon-financing package to gain efficiencies in the cost of methodology development, monitoring strategies, and other technical support activities. Equity investment is project-specific and there are no set percentages required.

Country Profile Updates

Each attending Partner and observer country delegate was given an opportunity to present a status update on the CMM activities. The results of country-specific activities and emerging needs are reflected in the Subcommittee Action Plan. Detailed presentation files of country updates are available at the Methane to Markets Web site.

Planning for the Partnership Expo

Ms. Birgfeld of the ASG provided an update on the Methane to Markets Partnership Expo. The cross-sector Partnership Expo Task Force has met three times since the full Partnership Meeting in November 2005, with participants from each of the technical Subcommittees. The Task Force has made preliminary recommendations to the Steering Committee, which will be further developed as Subcommittees discuss the Expo's agenda and format. The Task Force has proposed a three- to four-day event in the fall of 2007,

and the government of China has offered to host the Expo in Beijing. The name of the event has been modified to “Partnership Expo” to reflect more than just project-related activities and events. The Expo will include a number of elements, such as exhibition booths for technology vendors and project developers, opportunities to present and discuss individual projects and their development needs, subcommittee meetings/technical sessions, and a Steering Committee meeting.

Ms. Birgfeld highlighted immediate considerations for the Subcommittee in terms of planning for the Expo. Subcommittees should provide guidance for project exhibitions at the Expo. Also, Subcommittees are being asked to develop draft agendas that will cover approximately 1½ days of sector-specific discussions and activities, as well as input to any cross-cutting elements. Ms. Birgfeld presented a draft agenda developed by the Landfill Subcommittee as an example. In developing their sector-specific tracks, Subcommittees should consider the Expo’s key objectives, including the showcasing of project opportunities and technologies and discussions on overcoming technical, financial, and other barriers to project development. Ms. Birgfeld also emphasized the need of the Subcommittees to identify key participants for their sector at the Expo and to develop strategies to ensure their attendance and participation.

Ray Pilcher, a Project Network member, presented an overview of the *Carbon Expo 2006* (held in Cologne, Germany, on 10 – 12 May 2006) and highlighted “lessons learned” from that event that could be applied to the Methane to Markets Partnership Expo. He made three specific recommendations for a successful event: i) find sponsors that have the same goals as Methane to Markets, including industry representatives, government agencies, and project finance sources; ii) be proactive in identifying projects, at all stages of development and from a variety of venues and sectors, and obtain documentation on these projects for distribution at the Expo; and iii) choose a convention location and center that can support a world-class event that will draw the intended audience. Mr. Pilcher stated that his experience at *Carbon Expo 2006* indicates a significant need for an event focused on concrete project opportunities that can bring together business and technical experts. He also stressed the need for advanced planning to ensure that all the elements come together for a successful event.

Following these presentations, there was open discussion on ideas for the Partnership Expo planning. Mr. Karl Schultz, a Project Network member, agreed with Mr. Pilcher that a quality venue and convention center are needed for an expo of this stature. He suggested that the Carbon Expo is a good model to learn from, and that the Partnership Expo planners should consider substantial sponsorship and subsidization of the Expo to secure participation of developers and investors. He cautioned that the number of attendees will not likely reach the levels of the Carbon Expo, predicting that attendance would be numbered in the hundreds rather than the thousands. Mr. Schultz stressed the importance of timing for the Expo since the event will be occurring at a critical time for project development in the context of the overall carbon market and the CDM process. Other Project Network members reiterated that the Expo is meant to present good project opportunities and to have key stakeholders present to match those opportunities.

All participants agreed that governments can help prepare for the Partnership Expo by actively promoting methane collection and utilization projects, promoting CDM/Joint Implementation activities where applicable, and engaging the private investment sector. In effect, countries need to sell their own markets for project benefits by committing resources and activities to stimulate project development. Most participants agreed that many financiers are looking for projects, but that sufficient information about opportunities for quality projects needs to be presented to them in a timely and effective format.

In response to Mr. Schultz’s comment on anticipated participation at the Partnership, most participants (and the ASG) agreed that this is an important issue requiring follow-up by each of the technical Subcommittees. Gauging the expected participation, in terms of both numbers and type, will allow the

ASG to better prepare an appropriate venue and allow countries to better plan for sponsorship of attendees.

Project Network Update

Three Project Network members, Karl Schultz, Richard Mattus, and Alexander Hoffmann, presented a consolidated Project Network perspective on the goals, expectations, and recommendations for the Subcommittee and for CMM project development in general under the Methane to Markets Partnership. The presenters are all part of a stakeholder group of Project Network members within the Subcommittee. The stakeholder group currently includes representatives from Green Gas International, MEGTEC Systems, GE Jenbacher, and the UNECE. The presenters noted that the stakeholder group is open to any Project Network members and that more participation is welcomed if the stakeholder group concept proves useful.

One of the key points of the Project Network stakeholder group presentation was that market dynamics for CMM projects have changed significantly since the Methane to Markets Partnership started over 2 years ago. One of the most important developments is the continually evolving carbon market, which is driving a large number of methane reduction projects. The stakeholder's group emphasized the need for a better understanding and definition of the full carbon value chain associated with CMM projects, including the value of safety improvements, methane utilization, carbon credits, and improved technologies for gas collection. They highlighted the continuing need for more guidance and information on project financing and the preparation of bankable documents, particularly within the very technically oriented coal mining sector. They noted that Methane to Markets can help move smaller, more marginal CMM projects (in terms of CERs returned for project investment) ahead by showcasing all of the benefits they will achieve. Also, the group asked all members of the Subcommittee to assist in lobbying of government officials to improve the legal/regulatory/commercial frameworks surrounding CMM projects (e.g., gas ownership).

As several of the delegates mentioned, a number of the other stakeholder recommendations are currently being addressed through Methane to Markets activities, such as linking Methane to Markets meetings to commercially oriented events, developing a centralized Methane to Markets Web site for distributing information, and developing a global database on project-specific information. Mr. Karas of Australia pointed out the stakeholder group's recommendations did not include technology demonstrations; the stakeholder group agreed that that item should be added to the list.

The Project Network stakeholder group raised the issue of projects that involve gas flaring instead of gas utilization, which prompted extensive discussion among the participants on this issue. There was general recognition that flaring is not consistent with the objective of sustainable energy development, wastes a valuable energy source, and provides fewer net greenhouse gas reductions. On the other hand, it is relatively inexpensive, allows faster project start-up, leads to quick carbon reductions, and can be used where there are significant fluctuations in gas flow. It was also noted that flaring may be viewed as an initial phase leading to gas utilization for easy recovery, particularly as it applies to a project initially conceived under CDM. There was general agreement that the Subcommittee can express no final opinion on strict specifications or policies regarding flaring. The Subcommittee participants agreed that a fact sheet or white paper on flaring vs. utilization would be a useful Subcommittee product. Lee Schultz and Karl Schultz of the Project Network agreed to lead this effort through consultation with delegates from India, Argentina, Japan, Nigeria, China, and Russia.

Action Items for the Partnership Expo

Dr. Franklin opened the discussion about identifying specific Action Plan activities in preparation for the Partnership Expo.

The first item discussed was the criteria to be used by the Subcommittee to select projects for showcasing in the Partnership Expo. Mr. Karas asked whether it might be too premature to set such criteria at this point, or whether it may be better to review some projects first. Dr. Franklin responded that some minimal criteria are necessary at this point. Mr. Shindo, agreed that the Subcommittee probably needs to develop templates for a variety of project types, such as pre-feasibility and technology demonstration. A number Project Network members also agreed that some simplified guidance or templates would be useful to countries seeking to formulate site-specific showcases for projects. Ms. Birgfeld added that the Subcommittees need to develop minimum data fields that will convey important information about projects. Ms. Jemelkova stated that there is a joint UNECE/U.S. project to develop CMM projects in the Commonwealth of Independent States that will include the identification of critical information fields as they relate to CMM project sites. She said it may be possible to adapt those information fields into a more general key criteria listing for CMM projects. Vice-Chair, Mr. Liu Wenge, suggested that the format for the CDM Project Idea Note (PIN) could also be considered as a template starting point, as project developers have found it very useful. The Nigerian delegate, Solomon Adesanya, requested that financial data elements be included in the template.

The meeting participants agreed that the template development should be a near-term action item, and that a draft template for project information based on the UNECE/U.S. project criteria would be distributed for Partner countries to review and comment on. No specific dates were set for the template development, but the overall goal is to have a final version of the CMM project information template by the next Subcommittee meeting. The Co-Chairs will set intermediate dates for preparation of the draft template and comment response periods to meet that goal.

Another short-term action item is the identification of specific CMM project opportunities by all Partner countries. These projects, along with critical supporting information about their development potential, will be showcased at the Partnership Expo. As a short-term, post-meeting action item, all country delegates were asked to prepare a list of these specific projects or opportunities in their countries, or (if they have no in-country projects to report) to support the efforts to identify these projects in other Partner countries. This will be a critical step in the Partnership Expo planning, since a large part of the Expo will revolve around featuring project-specific opportunities.

Identification and recruitment of key participants was identified as another important action in preparation for the Partnership Expo. Many Subcommittee participants agreed that more effort is needed to bring coal producers into the Methane to Markets Partnership, and most importantly to match them with technology service providers at the Partnership Expo. It was agreed that country delegates should contact coal producers, as well as national coal mining associations, to gauge their participation in the Expo. In addition, the Subcommittee should contact the World Coal Institute and possibly the Energy Information Administration to ensure their participation in the Expo.

Review of Other Action Plan Activities

In response to the Steering Committee charge to define and track Methane to Markets projects, the Subcommittee did not come to any conclusions on reviewing and labeling CMM projects. Ms. Birgfeld stated that a more finalized version of the Methane to Markets project tracking database may help to better define criteria and develop a strategy for tracking CMM projects that result from Methane to Markets activities. Mr. Shindo suggested that the ASG, in developing the tracking database, should

classify activities into two groups: one for ongoing activities and one for proposed activities. Guidelines for review and labeling could then be designed around each of the groups. There was general consensus among the participants that any review or labeling criteria should in no way limit submissions to the tracking database.

The Co-Chairs reviewed upcoming workshops related to CMM, as they are considered an integral part of the Subcommittee Action Plan. The following upcoming workshops were identified:

- UNECE CMM Conference (September 19–20, 2006, St. Petersburg, Russian Federation)
- 2nd Western State Coal Mine Methane Recovery and Use Workshop (September 26–27, 2006, Grand Junction, Colorado, USA)
- U.S. EPA-sponsored CMM workshop (October 4-5, 2006, Brisbane, Australia - Tentative)
- China Coalbed Methane Clearinghouse Workshop (October 17–18, 2006), Beijing, China, hosted by China Coal Information Institute
- Carbon Expo Asia (October 26–27, 2006, Beijing, China)
- UNECE Ad Hoc Group of Experts (March 13–14, 2007, Geneva)
- CMM Utilization Workshop (June 6–7, 2007, Austria)

Next Subcommittee Meeting

The Chairs entertained proposed dates and sites for the next Subcommittee meeting, to be held well in advance of the Partnership Expo dates to allow for mid-course assessment of planning activities. It was suggested that the next Subcommittee meeting could be held in conjunction with another conference that might help draw in new Project Network members, and also reach out to potential participants and attendees to the Partnership Expo. One possible venue noted was the Carbon Expo Asia to be held on October 26–27, 2006. That venue could provide an excellent opportunity to publicize the Partnership Expo event, as well as collect input from a larger audience of project developers and financiers. The participants reached no decision on a date and location for the next Subcommittee meeting, but the Chairs will investigate possibilities for joint participation with another applicable conference/workshop.

Annex 1 Meeting Attendee List



**Methane to Markets Partnership
Coal Subcommittee Meeting**

**Bryant Center
Tuscaloosa, Alabama, USA
22-23 May 2006**

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