

**METHANE TO MARKETS PARTNERSHIP  
COAL SUBCOMMITTEE MEETING**



**Methane to Markets**

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9<sup>th</sup> Session of the Coal Subcommittee  
29 January 2009  
CINTERMEX  
Monterrey, Nuevo Leon, Mexico

**FINAL MINUTES**

**Pre-Meeting Site Visit – 27 January 2009**

The Methane to Markets Steering Committee and Partnership-Wide Meeting took place on 27–29 January 2009 in Monterrey, Nuevo Leon, Mexico. On 27 January, attendees interested in the coal sector were given the opportunity to visit Mina Esmeralda (Emerald Mine) at the Minerale Monclova facilities in the state of Coahuila. One tour went underground; another group took a tour of the surface facilities, which included a visit to the ventilation vertical shaft, degasification facilities, and gob well drill site. A brief question-and-answer session followed.

**Technical Workshop – 28 January 2009**

A plenary session welcomed participants from all sectors, with Key Note addresses from Mr. José Natividad González Paráz, Governor of the State of Nuevo Leon, Mr. Paul Gunning, of the U.S. Environmental Protection Agency (EPA), Ms. Sandra Herrera Flores, Undersecretary for Environmental Regulation, Mr. Enrico Lendo, of Mexico's Ministry of Environment and Natural Resources (SEMARNAT), and Mr. Rafe Pomerance, president of Clean Air – Cool Planet.

A technical workshop focusing on coal mine methane (CMM) issues featured a panel of speakers from Mexico describing the Mexican coal sector, coalbed methane ownership issues, and other topics relevant to CMM project development. Presentations also provided case studies of drilling in Mexico, abandoned mine projects in the US, a ventilation air methane mitigation demonstration project in the US, and a feasibility study for drained coal mine methane for conversion to liquefied natural gas and power generation in China.

Presentations can be found on the Methane to Markets Web site, at:  
<http://www.methanetomarkets.org/events/2009/all/all-27jan09.htm>.

**Subcommittee Meeting – 29 January 2009**

**Summary**

The Coal Subcommittee held its ninth session on 29 January. The meeting focused on planning for the 2010 Methane to Markets Partnership Expo, getting updates for country-specific coal mine methane (CMM) activities, and discussing topics for a high-profile Partnership-Wide Accomplishments Report.

## **Opening Remarks and Introduction**

Presiding over the meeting were:

- Co-chair Dr. Pamela Franklin, team leader of the Coalbed Methane Outreach Program (CMOP) at the U.S. Environmental Protection Agency (U.S. EPA).
- Acting vice chair Mr. Zhoa Guoquan, project manager at the China Coal Information Institute, standing in for Mr. Huang Shengchu, president of the China Coal Information Institute.

The meeting was opened at 9:15 a.m. Attendees included Methane to Markets Partner country delegates and Project Network members, as well as Administrative Support Group staff and other observers.

Dr. Franklin opened the meeting by thanking everyone for attending. In particular, she expressed her appreciation for the organizational efforts of the Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT) and thanked the attending Mexican colleagues for being such gracious hosts. Additionally, she thanked Minerale Monclova for arranging the site visit to Mina Esmeralda.

Country delegates, Project Network members, and other attendees formally introduced themselves, and Dr. Franklin summarized the goals for this Subcommittee meeting:

- To discuss updates from countries represented by meeting attendees.
- To discuss the upcoming 2010 Expo.
  - To be held in New Delhi, India.
  - Methods for encouraging Project Network participation.
  - General ideas or specific suggestions for speakers or session topics.
  - Developing project opportunities to highlight or showcase at the Expo.
- Subcommittee contributions to the Partnership-wide accomplishments report.
- Choosing a time and place for the next Coal Technical Subcommittee meeting.
  - Potentially Geneva, Switzerland, in October, in conjunction with the United Nations Economic Commission for Europe (UNECE) Ad Hoc Group of Experts on Coal Mine Methane

No comments were raised regarding the items on the meeting's agenda, and it was officially adopted. The final agenda is included as Annex 1.

## **Planning for the 2010 Partnership Expo**

Dr. Franklin passed around a list of the technical and policy sessions held at the 2007 Partnership Expo in Beijing and provided a brief overview of the three-day event. A Coal Technical Subcommittee meeting was held in addition to the policy and technical sessions, and there was also an opportunity for the different sectors to showcase project opportunities in various Methane to Markets countries. Twenty project opportunities were showcased for the coal sector, out of about 90 total project opportunities in all four sectors. Large posters were produced to showcase these projects, and summary flyers were also available for distribution.

She then opened the floor for comments or suggestions regarding topics, themes, or specific speakers for the 2010 Expo. The following suggestions were made:

### *Session Topics and Potential Speakers*

- Divide into two main topics—technologies and policies—and break these topics down into what is applicable to specific conditions.
  - Technical topics:
    - Include a summary of the best practices guidance document being put together by UNECE and the World Coal Institute in cooperation with Methane to Markets. Best practices guidance for CMM degasification and utilization would be applicable to any countries interested in CMM project development.
    - Continue to take a broad approach of technical topics, but put a focus on ventilation air methane (VAM) projects, which have the best potential for methane mitigation. There could be a specialized session covering only VAM topics, including recent developments,.
    - Review all research activities going on.
  - Policy topics
    - Review the regulatory issues for the development of CMM project on a worldwide basis, and perhaps convene a panel of experts on the subject.
    - Emphasize regulatory agencies and how they work to overcome legal barriers.
    - Use certain countries' past experiences in developing policies.
- Since the Expo will take place in India, include several India-specific presentations.
  - Presentation by Coal India, as they have very ambitious expansion plans for their underground coal mine.
  - Presentation from new Coal Mine Methane Clearinghouse on what they have accomplished over their first year.
  - Presentation on regulatory policy progress.

### *Attendees*

- Imperative that as many coal mine operators attend as possible. In particular, small and medium-sized producers often have no knowledge of the technologies available, so this is our opportunity to provide that information for them.
- Support the World Coal Institute (WCI) joining the program by making a major role for them at the 2010 Expo, and also making a significant role for the Clean Coal Center of the International Energy Agency (IEA) at the event as well. The WCI has been working with the coal sector of the Partnership in a very constructive way and should be encouraged to join the project network.
- Welcome South Africa into the Partnership and have someone from South Africa report on this country's activities. If they are not members at the time of the Expo, they can still be invited to participate. NOTE: South Africa has not requested to join the Partnership, which is a pre-requisite for membership in the Partnership.

### *Project Opportunity Showcases*

- For the purposes of the Expo, showcased projects should be limited to Partner countries.
- Update the showcased items from the previous Expo and add further projects opportunities to be highlighted.
- Use previous flyers and posters as templates and add new project opportunities as appropriate.
- Define projects early.
  - Project showcases generally require full participation from the project host and take a lot of time; we don't want to have to pull these all together at the last minute.
  - A good way to get participation from the coal mining sector, even if it only targets the more gassy mines.
  - Visits to get the required data should take place early on.
- No specific set of criteria as long as there is enough data available to estimate the amount of gas and produce a substantive flyer/poster.
- Project Network members who sponsor the Expo will be given booth space to showcase their organization's expertise, capabilities, etc.

### ***Communication***

- Send out a short e-mail, letter, or flyer very specifically targeting coal mines themselves, rather than just developers, government organizations, or trade associations. Nicolas Duplessis, Director of Development for Biothermica Technologies Inc., volunteered his assistance if this task were to be pursued.
- Schedule speakers by invitation only so we have more control of topics covered.
- Perhaps giving the private sector an opportunity to speak briefly (5–10 minutes) about their companies at the Expo would help to encourage Project Network participation and sponsorship.
- In order to target the coal mining sector, Project Network members could develop a database on coal companies worldwide, particularly the biggest emitters. Coal mine operators are more likely to develop an interest in project development if they see other companies that are successfully utilizing these technologies.

Dr. Franklin reminded the group that a task force had been created for the planning of the 2007 Partnership Expo, and that if there was enough interest, it would be beneficial to reconvene a task force for the 2010 Expo. Ray Pilcher volunteered and briefly shared his positive experiences as a participant on the 2007 Expo Task force. Dr. Franklin said she would also enlist the Chinese and Indian co-chairs, who would be particularly helpful because of China's experience in the 2007 Expo and India's decision to host this upcoming Expo. She summarized the suggestions and thanked everyone for their input, encouraging them to submit any further suggestions via e-mail to the Administrative Support Group, at: [asg@methanetomarkets.org](mailto:asg@methanetomarkets.org).

### **Country Updates**

Delegates and Project Network members then presented updates for CMM activities in several Partnership countries. Summaries for each update are provided below. Full presentations are available on the Methane to Markets Web site, at: <http://www.methanetomarkets.org/events/2009/all/all-27jan09.htm>.

*Australia (Presented by John Karas of Australia's Department of Resources, Energy, and Tourism)*

- Fugitive greenhouse gas (GHG) emissions from coal have increased by nearly 50 percent from 1990 to 2006.
- Overall GHG emission reduction goals include a 5 to 15 percent reduction from 2000 levels by 2020, and a 60 percent reduction from 2000 levels by 2050.
- The Carbon Pollution Reduction Scheme (CPRS) was released in December 2008, outlining an emissions trading scheme that will begin in July 2010. This will establish caps on the total levels of emissions in Australia, and major emitters will need to purchase permits to allow them to emit.
- The Climate Change Action Fund was created to assist coal mines with fugitive emissions.
  - \$500 million (from the Coal Mining Transitional Assistance Fund) for particularly gassy coal mines.
  - \$250 million (from the Coal Mining Abatement Fund) over five years to promote emissions abatement solutions.
- Four projects currently funded for CMM utilization: Envirogen electricity projects, the BHP Billiton thermal energy recovery project, the West Colliery VAM to electricity project, and the Energy Developments Limited electricity project.

*China (Presented by Zhao Guoquan, of the China Col Information Institute)*

- China is the world's largest CMM emitter and is expected to have the largest increase in these emissions from 2005 to 2020.
  - Coal demand to exceed 3 billion tones per year by 2010.
  - New coal mines are rapidly developing to meet this demand while small, unsafe mines are being shut down.
- Over the last 20 years, technology information exchange and successful demonstration projects for CMM utilization have gradually shifted the CMM recovery focus from mine safety to CMM capture and use. Since 2004, the CMM industry has taken off in China, with several dozen projects currently operating.
- The private sector is replacing the government's role in financing CMM projects in China.

*Update on IEA's upcoming study of CMM opportunities in China, presented by Dr. Franklin, on behalf of the IEA:*

- Significant CMM policies in China include:
  - 2006 CMM Extraction and Utilization policy.
  - 2008 Emission Standard of CMM policy.
  - Favorable land use and tax policies for CMM projects.
  - The National Development and Reform Commission issued a notice that provides priority sale of CMM to electric utilities, as well as providing subsidies from the power companies. However, this policy has not been well enforced.

- IEA recommends a continued expanse in government support, capacity-building for smaller mines, and the direct involvement of the stakeholders in CMM subsidy development.
- IEA points out that mines could have an incentive to dilute their CMM in order to avoid certain types of regulations, so it is critical to be cautious when developing recovery and use requirements for CMM.

***European Commission (Presented by Derek Taylor, Energy Advisor for European Commission)***

- The European Commission is already supporting one CMM project that covers three countries – Ukraine, Kazakhstan and Russia.
  - Studies on development concepts have been funded by a €4 million budget.
  - The project began on 1 November 2008.
  - Expected to run for 3 years.
- On the other hand, a recent open call for proposals under our Seventh Research Framework Programme (FP7) resulted in no proposals on CBM/CMM. Additionally, none of the proposals for similar studies received by the Coal and Steel Research Fund were deemed to be satisfactory for funding.
- Up to €4 million has been reserved for projects on methane in the forthcoming call for proposals (2009), and the European Commission is hoping for some proposals from the limited number of Member States where methane in mines is seen as a problem.
- A study with China has been finalized, involving an analysis of methane from coal mines, and this could be the subject of a follow-up activity. A joint call for proposals with China under FP7 could be launched in the near future.

***Germany (Presented by Dr. Franklin on behalf of Ralph Schlueter, of DMT GmbH & Co. KG)***

- Increasing number of licenses granted for CMM/CBM projects.
- However, the status of CMM activities has remained relatively unchanged.
  - The number of projects in the Ruhr district has fluctuated in a very narrow range since 2005 to the first half of 2008. There are nearly 130 power plants and around 165 MW installed capacity (just over 1 Mio kWh produced).
  - Data from the Saar region are less easy to obtain.
  - There is a trend of shifting capacity from active to abandoned mines due to the diminishing number of active mines in both regions.
- Interest in CBM activities has been renewed by activities in similar deposits in France and the UK, but all projects are still in the pre-exploration phase.

***Mexico (Presented by Jose Carlos Rivera, of Servicio Geologico Mexicano)***

- Coal has been known in Mexico since the middle of the eighteenth century, and currently over 280 locations have been reported to have coal deposits. Only 10 percent of the potential coal locations have been studied; other areas remain unexplored, and the main coal basins are in the state of Coahuila.
- In 2008, the total coal production was about 17 million tons, and its primary uses are for applications in the iron and steel industries as well as power generation.

- Some strategies that have been introduced in Mexico include recent amendments in regulations and the development of a technical coal mine database. Another strategy that has been introduced is the creation of a center of specialists for laboratory analysis of the coal in various locations and its potential for producing methane. Specific strategies for coal mine concessionaires include:
  - Supplying information generated through studies so projects can be promoted to different types of investors.
  - A technical database for the coal sector in the domestic market.
- Objectives for Mexico's strategies are to:
  - Explore new areas to find further coal deposits in Mexico.
  - Have a broader technical database in order to see the different features of the coal mines in Mexico and the quality of coal in each basin. This will allow all parties to determine the most viable projects for CMM capture and utilization.

***Mongolia** (Presented by Purevsuren Sarangerel, of Mongolia's Ministry of Mineral Resources and Energy, and Badarch Mendbayar, of the Mongolian Nature and Environment Consortium)*

- Coal is expected to remain the primary energy resource due to the country's vast coal reserves.
  - There are over 150 coal deposits, which are concentrated in the eastern, central, and southern regions of the country.
  - More than 30 coal mines of varying capacities are currently operating.
  - 99 percent of Mongolia's coal production comes from open cast mines, which are typically operated at shallow depths.
- Several environmental policies have been developed:
  - Mongolian Sustainable Development Strategy and Agenda 21.
  - The National Climate Change Action Plan.
  - Renewable energy policies.
  - Tax exemptions and other incentives to be implemented eventually.
- Barriers to CMM/CBM project development include:
  - Shortage of technical capacity and project experience.
  - Experience with gas use, but only gas cylinders; no integrated pipeline for gas.
  - Lack of financial support.
  - Lack of legal foundation for project development, including CMM mining rights.
- Mongolia joined Methane to Markets in March 2008 and is conducting a pre-feasibility study on methane recovery and use at Nalaikh Mine, funded by an EPA grant.
  - The study includes a detailed analysis of mine geology and a survey on the socio-environmental benefits of a CMM project
  - Assessment of methane resources in the mine has begun and will be completed in May 2009.
  - Existing methane and petroleum laws are being reviewed; this study is to be completed in June 2009.
- Other action items for 2009 include:
  - Identifying a developer for CMM projects in Mongolia in the future.
  - Developing investment opportunities for project at Nalaikh Mine.
  - Identifying technical assistance needs.

- Promoting public awareness of CMM potential.
- Developing a Global Environment Facility project proposal, to be completed in August 2009.

***Philippines*** (Represented by Elenita Leus, of the Philippines Department of Science and Technology)

- The Philippines have just joined the Methane to Markets Partnership and have nothing to report as yet.

***Poland*** (Presented by Jacek Skiba, of the Central Mining Institute of Katowice, Poland)

- The two main challenges for Poland are the utilization of all available CMM obtained from drainage processes, and creating the correct conditions for the capability of using VAM.
  - Of 31 operating coal mines, 21 have methane drainage installations, and 14 of these already utilize methane in small scale units for electricity generation, heat generation, or combined heat and power generation. The remaining drainage methane is released to the atmosphere.
  - Nearly 70 percent of methane produced in the mines is in VAM, which is also released to the atmosphere.
- EPA has awarded funding for both CMM and VAM research.
  - Abandoned mine feasibility study and CMM to liquefied natural gas assessment for Zory Coal Mine.
  - The Central Mining Institute of Katowice is performing a detailed study of VAM characteristics from 10 gassy hard coal mines in Poland. Goals include the quantification of VAM emissions, the creation of a database for VAM, and the attraction of investors and scientific institutions to develop technologies to convert low-concentration methane to heat or electricity.

***Ukraine*** (Presented by Meredydd Evans, of Pacific Northwest National Laboratory)

- Government envisions a major increase in coal production.
- Challenges facing CMM project development include:
  - Most CMM has methane concentrations less than 30 percent.
  - Most enterprises are not profitable; only a few have been able to find investors.
  - Methane rights are not easily transferred.
  - Mines are very old and present geological challenges.
- Policies promoting CMM development include:
  - The Green Tariff Law of 2008, which allows CMM power to sell at twice the average wholesale price and provides guaranteed access to the grid.
  - A law on coalbed methane, currently being drafted, that will require mines to adopt CMM capture and utilization technologies within a certain timeframe.
- Eight joint implementation projects are currently under development, and some other mines also use CMM for onsite heating.
- Ukraine is collaborating with U.S. EPA.
  - An April 2009 CMM seminar is planned.



- Reports developed for seminar include information on existing conditions and barriers, international best practice and policy recommendations, and individual mine profiles.

*United States (Presented by Dr. Jayne Somers, of the U.S. EPA)*

- The U.S. domestic CMM strategy is focused on overcoming regulatory and institutional barriers to project development, through technical information exchange. The main U.S. agency is U.S. EPA and its Coalbed Methane Outreach Program. CMOP is the entity that does most of the Methane to Markets coal sector work, but U.S. EPA also collaborates with its sister organization, the Department of Energy, in its domestic work.

Recent activities conducted for U.S. CMM project promotion include:

- A successful CMM conference held in Pittsburgh, Pennsylvania, in October 2008.
- A technical demonstration project for VAM and a demonstration project for enhanced CBM production and CO<sub>2</sub> sequestration.
- The development of a rule for reporting GHG emissions.
- The completion of a financial model, located at [http://www.epa.gov/coalbed/resources/cashflow\\_model.html](http://www.epa.gov/coalbed/resources/cashflow_model.html).

Future activities are planned as well.

- U.S. activities conducted to support the Methane to Markets Partnership include grant solicitation, Expo planning, making the CMM International Database more user-friendly and keeping it up to date, updating the CMM Global Overview country profiles, and assisting other countries in developing a robust country-specific strategy.
- Country-specific objectives and activities that are included in the U.S. international strategy were explained in detail. U.S. goals for CMM development in other countries range from local project support, including feasibility studies and resource assessment, to capacity-building and assistance with legal and regulatory issues. In-depth details regarding specific U.S. activities in China, India, Mexico, Mongolia, Nigeria, Poland, Russia, and Ukraine can be found in Dr. Somers's presentation on the Methane to Markets Web site.

**Setting the Date for the Next Coal Technical Subcommittee Meeting**

Mr. Pilcher, Chair of the UNECE's Ad Hoc Group of Experts on Coal Mine Methane, suggested that the next Subcommittee meeting could be co-located with the next meeting of the Ad Hoc Group of Experts, to be held in Geneva, Switzerland, in October 2009. Attendees unanimously consented to accept this offer, and the next Coal Subcommittee meeting was officially scheduled for 12 October 2009, at the United Nations Palais des Nations, Geneva, Switzerland.

**Other Updates**

*UNECE Best Practices Guidance Document on Methane Capture and Use to Improve Mine Safety (Presented by Mr. Pilcher)*

- The Methane to Markets Partnership, UNECE, U.S. EPA, and the World Coal Institute are collaborating to develop a technical document describing the best practices for methane drainage and use for mine operators, regulators, government officials, and technical professionals. It is intended to be a guide rather than a set of prescriptive rules and will be available in multiple languages.

- The main objective for the guide is to improve mine safety and create a set of recommended principles and standards for methane recovery and utilization.
- The final document is expected to be published in the 4<sup>th</sup> quarter of 2009, followed by its dissemination at workshops and seminars as appropriate.
- While it is too late for more experts to join the document drafting group, the peer review group and stakeholders group could both benefit from the addition of experts in mine safety.

***Non Conventional Gas High Monetization Technology (Presented by Jeff Rault, of CleanMetFuel SA de CV)***

- The value of non-conventional gas resources such as CMM are limited in Mexico because these resources are isolated and small in scale. This means the resources are disconnected from the potential end user market and leads to limited investment in infrastructure.
- The “virtual pipeline” is a concept developed to address this challenge. It involves the liquefaction of the gas, which can then be transported to end users much more economically than it can in gas form.
- A “virtual pipeline” can be applied by creating a private natural gas distribution network separate from the main National Distribution system. Advantages to this application are:
  - It promotes the development of rural economic activity.
  - It provides a clean and competitive energy source.

### **Partnership Accomplishments Report**

Henry Ferland, Co-Director of the Methane to Markets Administrative Support Group, provided a brief description of the M2M Partnership Accomplishments Report, which is intended to be the premium promotional piece for Methane to Markets. The goal for its completion is December 2009. The Steering Committee has charged each subcommittee to provide the necessary data for each delegate country in order to highlight all of each sector’s efforts.

A template will be provided for each subcommittee in mid-February for delegates to enter their countries’ accomplishments or other activities. They will have 60 days to fill out these templates, and the Secretariat will review them and write a draft report by June 2009. The delegates will then have 45 days to review the draft, after which further edits will be made. Once it has been laid out in graphics, the revised version will be issued for a 15-day review sometime in September 2009.

Project Network members will also have an opportunity to provide input, which may be included as an appendix in the report.

### **Adjournment**

After brief closing remarks from the co-chairs and vice chair, the meeting was adjourned.

## Annex 1 – Coal Sector Agenda



### Methane to Markets

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**METHANE TO MARKETS PARTNERSHIP-WIDE  
AND STEERING COMMITTEE MEETING  
Monterrey, Mexico  
27–29 January 2009**

**COAL MINE SITE VISIT,  
TECHNICAL WORKSHOP, AND SUBCOMMITTEE MEETING  
Final Agenda**

#### **27 January 2009**

##### *Coal Sector Site Visit*

Horizontal drilling underground mine visit to Minales Monclova (MIMOSA) facilities.

06:00-06:30	Registration to the workshop/Continental breakfast
06:30-10:00	Travel to the Esmeralda Mine
10:00-10:45	Introduction by site personnel (safety instructions and lunch included)
10:45-14:15	Mine Tours (concurrent)

##### Group 1:

10:45-14:15	Underground mine visit to the Esmeralda Mine
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##### Group 2:

10:45-11:30	Technical visit to the ventilation vertical shaft and degas facilities
11:30-12:30	Technical visit to the gob well drill site
12:30-14:15	Introduction to MIMOSA's CBM Project implementation. Q&As

14:15	Groups 1 and 2 reconvene
14:15-15:00	Travel to the "Rosa de Oro" Hotel
15:00-16:30	Formal dinner offered by MIMOSA
16:30-20:00	Travel to Monterrey, Nuevo León

#### **28 January 2009**

08:30 – 09:00	Registration
09:00 – 11:40	Opening Plenary Session
11:40 – 11:55	Coffee break

##### *Technical Workshop*

12:00 – 12:10	Coal Workshop Begins - AFRICA/ASIA ROOM (simultaneous with Steering Committee Meeting)
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12:10 – 12:40	Introduction <i>Officials from the Mexican Government</i> <ul style="list-style-type: none"><li>• <i>Alejandro Alarcón Garza, General Director of Mining Promotion, Economy Secretariat</i></li></ul>
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## Annex 1 – Coal Sector Agenda

- *Oscar Roldán Flores, Deputy Director for Exploration and Production, Secretariat of Energy*
- *Olga Briseño Senosiain, Director for Mining, Secretariat of the Environment and Natural Resources*

12:40 – 12:50	Opportunity for Coal Mine Methane Projects in Coahuila State <i>Alfredo Abraham Cabrera, Undersecretary of Mining and Energetics, Coahuila Economic Development Department</i>
12:50 – 13:30	Experiences and Plans for CMM Project at Mexican Coal Mines <i>Lorenzo Gonzalez Merla, Manager, Environmental Affairs, Minerales Monclova (MIMOSA)</i>
13:30 – 14:30	Lunch <i>Subcommittee co-chairs provide report-outs to Steering Committee</i>
14:30 – 15:15	Coal Mine Methane Drainage Strategies for the Sabinas Coal Basin <i>Jeff Schwoebel, Resource Enterprises Inc.</i>
15:15 – 16:00	Case Study: Feasibility Study of LNG and Power Generation at Songzao Coal Mines, Chongqing, China <i>Ray Pilcher, Raven Ridge Resources</i>
16:00 – 16:30	Coffee Break
16:30 – 17:15	Case Study: Long-Term Abandoned Mine Methane Recovery Operation in the United States <i>Ronald Collings, Ruby Canyon Engineering</i>
17:15 – 18:00	Mitigation of Ventilation Air Methane and Generation of Carbon Credits: Case Study in the United States <i>Nicolas Duplessis, Biothermica</i>
18:00	Adjourn

### 29 January 2009

09:00 – 10:45	Morning Plenary Session <ul style="list-style-type: none"><li>• Steering Committee Report Out and Charge to Subcommittees</li><li>• Report from the Administrative Support Group (ASG)<ul style="list-style-type: none"><li>– Provide a general progress report/status update on overall ASG activities</li><li>– Discuss Methane to Markets Partnership-wide accomplishments report and need for Subcommittee involvement</li><li>– Discuss proposed strategy for increased Project Network engagement and acknowledgement</li><li>– Reinforce Steering Committee decision on plans for next Partnership Expo</li></ul></li></ul>
10:45 – 11:00	Coffee Break and change to break out rooms

## Annex 1 – Coal Sector Agenda

### *Coal Technical Subcommittee Meeting*

- 11:00 – 11:30      Welcome – AFRICA/ASIA ROOM  
Brief Introduction of Meeting Participants  
Review of Meeting Goals / Brief Re-cap of April 2008 Meeting  
Adoption of Agenda  
*Co-Chair Pamela Franklin (USA), Co-Chair A.K. Singh (India), Acting Vice-Chair Zhao Guoquan (China)*
- 11:30 – 12:30      2010 Partnership Expo  
*ASG, Co-Chairs, Vice Chair*
- Updates on projects showcased in Beijing at 2007 Expo
  - Goals of 2010 Partnership Expo
    - Discussion of draft technical program
    - Discussion of technologies, case studies, and project opportunities to showcase
    - Discussion of strategy for outreach: Target companies and individuals of interest to which the Subcommittee should reach out
- 12:30 – 13:45      Working lunch in meeting room
- 13:00 – 14:45      Brief update on CMM activities in Ukraine  
*Meredydd Evans, Pacific Northwest Laboratory*  
Coal Subcommittee Delegates Updates (5 minutes each) and Discussion
- Status of country-specific strategies
  - Updates on new developments and activities furthering Partnership goals (e.g., working with trade associations, training events, pre-feasibility studies, white papers)
- 14:45 – 15:15      Coffee Break
- 15:15 – 16:00      Updates from Project Network on Partnership Activities
- UNECE – World Coal Institute – M2M initiative: best practices guidance document on coal mine methane degasification and utilization  
*Ray Pilcher, Raven Ridge Resources*
  - Non Conventional Gas High Monetization Technology  
*Jeff Rault, CleanMetFuel SA de CV*
  - Update on activities in China  
*Pamela Franklin, on behalf of International Energy Agency (IEA)*
- 16:00 – 16:30      Subcommittee Action Items for 2009  
*Subcommittee Chairs*
- Next meeting – proposals for possible dates, locations
  - Plan of action for coming year:
    - Prepare for 2010 Expo
    - Implement country strategies
    - Contribute to M2M Accomplishments report
- 16:30                  Adjourn