



# Methane to Markets

---

## *Coal Subcommittee Report to Steering Committee*

**Subrata Chaudhuri, Co-Chair**

*Chairman Central Mine Planning and Design Institute Limite (India)*

31 October 2007  
Beijing, China

**Pamela Franklin, Co-Chair**

*U.S. Environmental Protection Agency (United States)*

**Huang Shengchu, Vice Chair**

*President China Coal Information Institute (China)*

# Overview

---

- **Coal Sector Action Plan Overview**
- **Achievements since the 2006 Rome Meeting**
  - Subcommittee meeting spring 2007
  - Partnership Expo Involvement/Marketing Efforts
  - Selected Subcommittee Achievements
  - Activities by Country
- **Issues for Consideration by the Steering Committee**
- **Next Steps and Conclusions**

# *Coal Sector Action Plan Overview*

---

- **Key barriers hindering coal mine methane (CMM) project development include:**
  - Lack of understanding of the legal and regulatory issues.
  - Lack of technology or technical knowledge to implement CMM projects.
  - Lack of demonstrated feasibility and demonstration of successful CMM projects at specific sites.
  - Lack of financing or capacity to obtain financing for CMM projects.
  
- **Activities in the Coal Subcommittee Action Plan to overcome barriers to CMM project development**
  - Informational work products (reports and white papers) on legal barriers to project development.
  - Technology transfer activities (workshops and training seminars).
  - Feasibility studies and technology demonstration projects.
  - Facilitating project financing capacity.

# ***Subcommittee Achievements Since December 2006***

---

- **6th Session of the Coal Subcommittee**
  - Held in conjunction with meeting of the UNECE Ad Hoc Group of Experts on Coal Mine Methane.
  - 3-4 April 2007, Geneva, Switzerland.
  - 19 countries represented.
  - Outlined Partner Countries' planned Expo participation and reviewed Coal Subcommittee Action Plan.
  
- **Developed informational tools**
  - Database of international CMM projects now available on the Methane to Markets' Web site.
  - Supplements *Global Overview of CMM Opportunities*, Technology Database, other resources available on Web site.
  
- **Continued support for UNECE program to increase financing capacity for CMM projects**

# *Subcommittee Achievements (continued)*

---

- **Support for Beijing Partnership Expo**
  - Convened Coal Task Force to develop agenda for Coal Breakout Sessions.
  - Developed CMM project opportunity templates to highlight key information for display.
  - Enlisted financial support and participation by the private sector.
  - Showcased 15 CMM project opportunities at the Expo
    - China
    - India
    - Mexico
    - Nigeria
    - Ukraine

# *Activities by Country*

---

## ■ **Australia**

- Created a technology database targeted at CMM project developers.
- Participated in Coal Expo Task Force and enlisted speakers for Coal Breakout Session.
- Planned and will host the world's first commercial-scale CMM project that converts ventilation air methane to electricity.

## ■ **China**

- Developed information for ten project opportunities at Chinese coal mines to be displayed at the Expo.
- Utilized the China Coal Information Institute (CCII) to organize the Partnership Expo and provided logistical and translation support for Expo activities, outreach materials, and displays.
- Hosted China Coalbed Methane Clearinghouse activities at CCII.

# *Activities by Country (continued)*

---

- **India**

- Analyzed and gathered information for two CMM project opportunities at Indian coal mines to be showcased in flyer format at the Expo.
- Enlisted Indian sponsorship and participation at the Expo: Coal India is a Platinum sponsor and reception sponsor.
- Continued to work with U.S. EPA to establish India Coal Mine Methane / Coalbed Methane Clearinghouse.

- **Japan**

- Participated in Coal Expo Task Force; identified session topics and speakers for Coal Breakout Session at Expo.
- NEDO provided travel support for seven participants to attend Expo (from China, India, Mexico, Nigeria, and Russia).
- Provided funding to assist in developing project opportunity templates, including China, Mexico, and Nigeria.

# Activities by Country (continued)

---

- **Mexico**
  - Developed new regulatory framework to overcome ownership barrier to CMM project development.
  - Developed CMM project opportunity poster display for the Expo.
  - Planned and will host technology demonstration and feasibility study for CMM project at mine in Mexico, utilizing liquid natural gas technology.
  
- **Nigeria**
  - Developed CMM project opportunity template (flyer) for distribution at the Expo.
  - Prepared for and assisting with a CMM pre-feasibility study.
  
- **Poland**
  - Organizing international workshop: *New trends in coal mine methane recovery and utilization* (27–28 February 2008, Szczyrk, Poland).

# Activities by Country (continued)

---

- **Russia**
  - Provided translation services for side meetings at Expo.
  - Organized and will host UNDP GEF coal mine methane recovery and utilization project at Komsomolets Mine.
  - Promgaz planned and will launch pilot CBM development program in Kuzbass.
  
- **Ukraine**
  - Developed CMM project opportunity displays for the Expo.
  - Planned and will host USTDA feasibility study for coalbed / coal mine methane project at two mines.
  - CMM project under development, partially financed by Overseas Private Investment Corporation (OPIC).
  - Belozerskaya Mine in Donbass will host advanced in-mine drilling project.
  
- **United Kingdom**
  - Department of Trade and Industry (DTI) actively supports technical capacity building to facilitate coal mine methane project development in Russia and China.

# Activities by Country (continued)

## United States

- **Awarded grants, sponsored CMM project development activities in Partner Countries**
  - Pre-feasibility study in Guizhou Province, China, to evaluate medium-sized coal mines.
  - Demonstration project of electricity generation at Chinese coal mine (working with CCII).
  - Feasibility study, technology demonstration of monolithic catalytic combustor at Tiefa, China (with Australia CSIRO).
  - Pre-feasibility study of ventilation air methane resources, abatement options at two Indian coal mines.
  - Supported establishment of CBM recovery and utilization project in Jamadoba, India.
  - Technology demonstration project in Mexico.
  - Pre-feasibility study in Nigeria.
  - Conducted outreach to Ukrainian coal mines, continued support for advanced in-mine drilling program at Ukrainian mine.
- **General capacity building support**
  - Funding for China Coalbed Methane Clearinghouse (CCII).
  - Working with government of India to establish India CBM / CMM Clearinghouse.
  - Funding UNECE project evaluating financing of CMM projects in Eastern Europe / FSU.
- **Support for M2M Partnership Expo**
  - Participated in Coal Expo Task Force to develop Coal Breakout Session agenda for Expo.
  - Provided travel support for participants to attend Expo.
  - Assisted in the development of project opportunity posters and flyers.

# *Issues for Consideration by the Steering Committee*

---

- **Coal Subcommittee needs to build on its Action Plan to develop a coherent strategy for supporting CMM recovery and utilization projects in each Partner Country**
  - While key elements for successful project development are similar, each country has unique barriers and current capabilities for project development.
  - Therefore, country-specific plans would be most effective to facilitate project implementation.
  - Coal Subcommittee seeks endorsement from Steering Committee to facilitate development of country-specific strategies to guide the Subcommittee's activities.
- **Coal Subcommittee encourages broader participation from the Project Network**
  - Project Network participation, insight, sponsorship of activities is invaluable.
  - Coal Subcommittee seeks input from Steering committee on ways to encourage private sector to become more actively involved.

## *Next Steps*

---

- **Coal Subcommittee will consider development of country-specific strategic plans for CMM project development.**
  
- **Next Subcommittee meeting**
  - To be held Spring 2008, location and venue to be determined (preferably in conjunction with a relevant workshop or conference).

## *Conclusions*

---

- **The Coal Subcommittee welcomes participation from two new Partner Countries, Poland and Viet Nam.**
  
- **The Subcommittee will build upon the success of the Expo to forge stronger relationships among Partner Countries and the Project Network**
  - Develop specific strategies for facilitating project development in Partner Countries.
  - Increase substantive engagement with private sector.