

Report to steering committee

Brief Updates on India

Beijing, China

31.10.07

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# Coal Sub Committee Update



# Participation in Expo

- Showcasing project opportunities in two opencast mines in flyer format
  - Moher sub basin, Singrauli CF
  - Korba CF
- Coal India limited (CIL) is sponsoring following in the Expo:
  - Platinum booth
  - Opening reception

# Development of Coal Mine Methane: CIL endeavor

- Coal India limited (CIL) has invited an EOI for development of CMM within its lease hold areas.
- Initially 5 coalfields namely Raniganj, Jharia, E & W Bokaro and S Karanpura have been identified for development of CMM.
- The prognosticated CMM resource in these coalfields is 150 BCM.
- The blocks are to be allotted through global bidding
- A CMM related Demonstration Project is under implementation in 2 underground mines
  - 1 Well has been successfully hydro-fractured in Oct'07
  - 2<sup>nd</sup> well to be hydro-fractured in Nov'07
  - Production likely to start from Dec'07.

## Broad Assessment of CBM Resource in Potential CMM Areas of Raniganj, Jharia, E & W Bokaro and S Karanpura Coalfields

Coalfield	Area of the Coalfield (Sq Km)	No of coal seams	Cumulative Thickness (m)	Gas content (m <sup>3</sup> /t)	Coal reserves likely to be available for CMM (BT)	Prog. CBM resource (BCM)*
Raniganj	1550	17	30-40	5-7	8.2	40
Jharia	450	42	Up to 100	7-26	7.4	50
E Bokaro	237	22	>100	10-22	3.0	30
W Bokaro	207	13	>40	6-10	1.6	10
S Karanpura	194	42	>100	5-10	3.7	20
Total					23.9	150

\* Note: 1. Without taking into account that part CBM resource are from de-stressed coal seams.  
2. CBM resource in abandoned mine not accounted.

# CMM Project Associated with Opencast Mines ...

- Coal production from Opencast mines of CIL is 318 Mt.
- Methane content is less due to shallow depth but emission is substantial due to high coal production.
- Pre-drainage of methane in the deeper projectised opencast area being considered in Moher Sub-basin and Korba CF.
- Integration of opencast mining with methane recovery project will be required.
- Data being generated for estimation of gas-in-place CBM resource.
- The drained out methane may be utilised for
  - ✓ Power generation
  - ✓ Captive use.
- Additional revenues in terms of carbon credits envisaged.

# Proposed CMM Project in Opencast Mining Areas

## Moher Sub-Basin:

- Mining Area - 312 Sq. Km
- Cumulative thk of coal- 30m.
- High Volatile Bituminous "C" Coal
- Projected gas content- 1.5 to 4 m<sup>3</sup>/tonne
- Depth of recovery: 150 to 600m
- Present coal production: 52 MTY
- Production in 2035- 81.5 MTY
- Methane likely to be captured:
  - 2013-136 million cu.m/year
  - 2035-204 million cu.m/year

## Korba Coalfield :

- Mining Area - 530 Sq. Km
- Cumulative Thk of coal- 75m.
- High Volatile Bituminous "A" Coal
- Projected Gas content- 1.6 to 2 m<sup>3</sup>/tonne
- Depth of recovery: 150 to 250m
- Present coal production- 55 MTY
- Production in 2025- 75 MTY
- Methane likely to be captured:
  - 2013-120 million cu.m/year
  - 2025-150 million cu.m/year

# Establishment of Clearing House

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- MOU signed between Govt. of India and USEPA in Nov'06 to establish CBM/CMM clearing house in India.
- The draft cooperative agreement is under finalization.
- Agreement to be signed soon.
- Office space at CMPDI for Clearing House is ready.

# Update on other Sub Committee

- An international Conference was organized on 5-7 September 2007 at Chennai, India. by Center for Environmental Studies, Anna University in association with the Asian Institute of Technology in Pathumthani, Thailand. on Sustainable Solid Waste Management
- This conference provided a forum to share ideas and experiences in the field of Sustainable Waste Management. The major objectives of the conference were to:
  - Disseminate the findings of Asian Regional Research Programme on Sustainable Landfill Management in India
  - Discuss the lessons learnt from national and international waste management projects
  - Identify the barriers in the implementation of the policies and regulations on municipal solid waste management in Asia
  - Create awareness on the environmental, economic and social impacts of municipal solid waste management.

# Other activities undertaken in India

- A two-day conference was jointly organized by FICCI and M2M Partnership on "Advancing Project Development in India through Public Private Partnerships" on methane recovery and use project opportunities in India, on 22-23 February 2007 in New Delhi.
- The following presentations were made during the conference:
  - Partnership Overview and Oil & Gas Sector Opportunities in India by Carey Bylin, U.S. EPA
  - India Sector Overview by Bishal Thapa, ICF International
  - Production Sector Emission Reduction Opportunities by Don Robinson, ICF International
  - Cross-Sector Methane Emission Reduction Opportunities by Don Robinson, ICF International
  - Transmission Pipeline Opportunities by Don Robinson, ICF International
  - Challenges in Utilizing Flared/Vented Gas & Opportunities for Carbon Emissions Reduction in Assam by Jai Uppal, Center for Alternate Energy Research (CAER), University of Petroleum & Energy Studies
  - Clean Development Mechanism (CDM): Projects in ONGC & Allied Issues by A B Chakraborty, ONGC

Thank You