

COAL MINE METHANE PROJECT OPPORTUNITY

Mohuda Sub-basin CMM Project

Bharat Coking Coal Ltd

Jharia Coalfield, Jharkhand, India

OVERVIEW OF COAL MINE METHANE PROJECT:

The Mohuda Sub-basin CMM Project is located in the south-western part of Jharia Coalfield under BCCL, near Dhanbad, Jharkhand, India. The CMM block covers 15.5 km² and has an estimated coal resource of 75 MT. The gas resource is estimated to be 0.4 BCM (6.35 Bcf). There are 8 coal seams in the area. Coal seams include the upper seams, Lohapatty Middle, Pathogoria 'A' & 'B', and Bhurungia Top. These seams are mined using the bord and pillar method. The Mohuda Top seam, which is below the actively mined seams, has been targeted for CMM recovery. The target coals are high volatile bituminous 'A' in rank and have an average gas content of 2.4m³/t (85 scf/ton). The commercial CBM Project of CIL-ONGC is in operation near the area and has proven commercial production on a limited scale. It is expected to reach full scale in 2013. Data dossiers encompassing all details related to geology, mining history, and gas resource have been prepared.

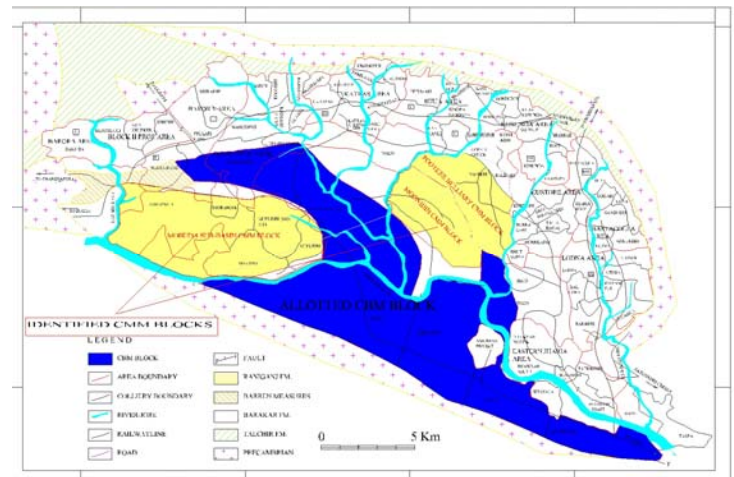
ESTIMATED ANNUAL EMISSION REDUCTIONS: 56,890 MTCO₂E

PROJECT DETAILS

- Name of Project: Mohuda Sub-basin CMM Project
- Name of Mine: Mohuda Top U/G Mine
- Type of Ownership: Public Sector Undertaking
- Type of assessments performed: A detailed data dossier is under preparation, which will form part of bid document

MINE INFORMATION

- Mine owner : Bharat Coking Coals Ltd
- Parent company: Coal India Ltd
- Status and type of mine: Active, underground
- Mining Method: Bord & Pillar



PROJECT FINANCES

- Assumptions : \$5-\$7/Mcf
- Estimated revenue : US\$9-13 Million
- Projected capital costs: Approximately US\$10 Million

HISTORICAL AND PROJECTED MINE DATA

HISTORICAL COAL PRODUCTION

YEAR	2006	2007	2008	2009	2010	2011
<i>Coal (tonnes/yr)</i>	169,000	133,000	150,000	133,000	203,000	135,000
<i>Methane (Mm³/yr)</i>						
Emitted from ventilation system(s)	0.631	0.497	0.560	0.497	0.758	0.504
Liberated from drainage systems						
Vented to atmosphere						
Total Methane Emissions	0.631	0.497	0.560	0.497	0.758	0.504

PROJECTED COAL PRODUCTION AND METHANE EMISSIONS

YEAR	2012	2013	2014	2015	2016	2017	2018	2019
<i>Coal (tonnes/yr)</i>	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000
<i>Methane (Mm³/yr)</i>								
Emitted from ventilation system(s)	0.411	0.430	0.400	0.420	0.410	0.430	0.450	0.440
Liberated from drainage systems		1.0	1.5	2.4	3.2	4	4	4
Vented to atmosphere	0.411	0.430	0.400	0.420	0.410	0.430	0.450	0.440
Total Methane Emissions	0.411	0.430	0.400	0.420	0.410	0.430	0.450	0.440

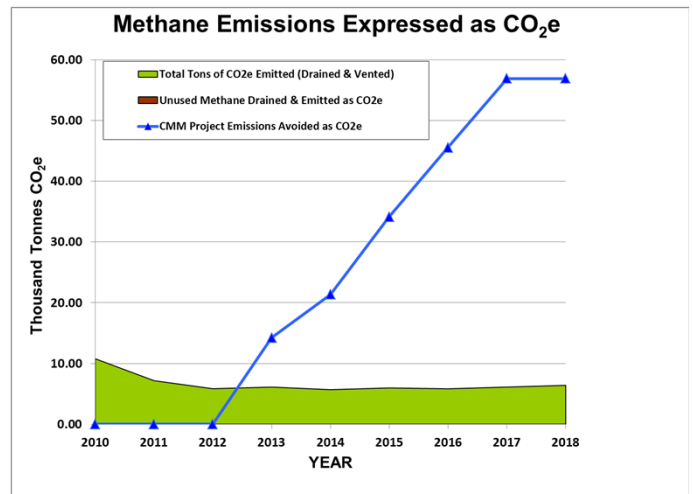
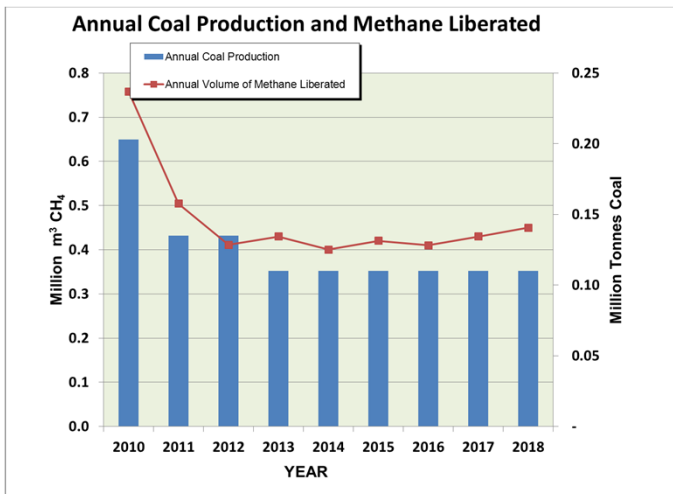
GREENHOUSE GAS EMISSION REDUCTIONS

At present there is no system of methane drainage and therefore, there is no utilization of CMM from the project area. There is no existing gas drainage system operational in the operating mine. To reduce the release of methane into the environment from the operating mine and to make future mining safe, this CMM project has been perceived.

TOTAL VOLUME OF METHANE EXPECTED TO BE RECOVERED/UTILIZED

YEAR	2013	2014	2015	2016	2017	2018	2019
Total CH ₄ recovered and utilized (m ³ /year)		1.0	1.5	2.4	3.2	4	4

COAL PRODUCTION AND METHANE EMISSION CHARTS



MARKET ANALYSIS / DEMAND ANALYSIS

The CMM produced after implementation of the Mohuda sub-basin CMM Project would have a ready market as it is located close to the developed industrial area of Bokaro Steel City and Dhanbad. The produced CMM may be utilized in the Bokaro Steel Plant or other steel plants, or in other industries.

TYPE OF ASSISTANCE SOUGHT

Technical Assistance:

- CBM resource assessment in de-stressed coal seams
- Techno-economic evaluations of the project
- Adoption of suitable drilling technology

PROPOSED TECHNOLOGIES

To be adopted after careful examination of existing geo-mining conditions.



Sucker Rod Pump



Gas-Powered Generator

FOR MORE INFORMATION, CONTACT:

GM, CBM, CMPDI,
Gondwana Place, Kanke Road
Ranchi- 834008, Jharkhand, India
Tel: +91 651 2230011, Fax: +91 651 2233314
e-mail: gmcbm@cmpdi.co.in, bnprasad54@yahoo.co.in

Central Coalfields Ltd,
Darbhanga House, Ranchi-834 001,
Jharkhand, India
Tel: +91 651 2301606, 2316707, Fax: +91 651 2315257/2204479

DISCLAIMER: The information and predictions contained within this poster are based on the data provided by the site owners and operators. The Global Methane Initiative Partnership cannot take responsibility for the accuracy of this data.