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Development of CBM in India: An Overview



Flare of Methane at Moonidih



S R Pump at Moonidih

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Presentation outline

- ❖ India's energy scenario
- ❖ Coal: Reliable source for energy security in India
- ❖ Development of CBM: India's accomplishments
- ❖ Development of CBM/CMM: CIL/CMPDI's initiatives
- ❖ Development of CMM: Opportunities and challenges
- ❖ India CBM/CMM Clearinghouse



India's Energy Scenario

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- ❖ Coal is the main source of energy supply in India, meets about 50% needs of commercial energy. Studies suggest that this position is to remain unchanged in foreseeable future,
- ❖ *Coal plays a dominant role in sustaining economic growth of India which could be evident from the following:*
 - 67% share in power generation
 - 70% share in steel making
- ❖ Reserve: 293 BT as on 01.04.2012, proved reserve 114 BT.
- ❖ India's coal reserve is 7.1% of world total, which stands reasonably good compared to 0.8% for oil / natural gas
- ❖ Compared to other sources of energy, coal has better availability, affordability, quality & price predictability



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India's Energy Scenario

- ❖ India is the 3rd largest coal producing country after China and USA with coal production of about 500 MT.
- ❖ About 87% of the coal production is coming from opencast mines and 13% is coming from underground mines having limited mechanization.
- ❖ With increasing depth of opencast mines, now the focus and stress is on development of mechanized underground mines.
- ❖ Coal sector contributed about 388.14 MT CO₂e (1 BCM annually) of methane emissions in 2005, which is expected to rise to 449.48MT CO₂e by 2020 (USEPA estimate).
- ❖ There is focus to mitigate emissions from coal mining sector. For the purpose capture and gainful utilisation is a priority area at govt and industry level.
- ❖ In addition, efforts are on to utilize all possible energy resource-renewable, non-renewable, coal based additional resource viz CBM, CMM, VAM, UCG etc to augment energy supply required for sustaining envisaged GDP growth.



Development of CBM: India's Accomplishments

- ❖ To facilitate development of CBM, Govt. of India formulated CBM Policy in 1997 having liberal fiscal provisions.
- ❖ As a result, commercial development of CBM took a fast pace
 - CBM resource in allotted 33 CBM blocks in 4 rounds : 1.8 TCM, Area- 17700 sq km
 - Production potential in allotted blocks : 45 Million Cubic Meter per day, which can support power generation of 8200 MW.
 - CBM well drilled: 280, Total investment: Rs 256 Crores (USD 57 million)
 - Reserve established by different operators in 5 blocks: 8.4 TCF
 - 3 blocks (Raniganj South-GEECL, Sohagpur West and Sohagpur East- Reliance Industries Ltd) has entered in development stage.
 - Commercial production of CBM started and during 2008-09 it was 0.20 MMSCMD (million std cubic meter per day).
 - The CBM production is expected to increase to 7.14 by 2014



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Development of CBM: CMPDI's Endeavor

- ❖ Generating CBM specific data to augment CBM resource in India (CBM resource: 3.4 TCM, CMPDI estimate)
- ❖ Carving out prospective blocks and preparation of Data Dossiers for allotment through global bidding
- ❖ Implementation of commercial CBM Project on behalf of CIL in Jharia and Raniganj CBM Blocks allotted to CIL-ONGC consortium.
 - Production from Jharia CBM Block likely to start by 2012.
 - A Development Plan with budgetary estimate of Rs 1137 Crores (USD 290 Million) has been submitted to the Govt. for approval.
 - Full commercial production will start after approval of the Development Plan and its implementation



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Development of CMM: CMPDI's Endeavor

- ❖ Development of CMM is on high agenda of Indian coal mining industry and steps are being taken up for its commercialization.
- ❖ India CBM/CMM Clearinghouse, established under the aegis of USEPA and Ministry of Coal, Govt of India, is providing international platform for the opportunities existing for development of CMM in India..
- ❖ In addition, need to expedite development of CMM has been discussed at the Indian Planning Commission level wherein several ministries officials in addition to officials of DGMS, CIL and CBM operators participated.
- ❖ A mine related demonstration project for harnessing and utilization of CMM has been successfully implemented in Moonidih Mine of BCCL under UNDP/GEF/Govt. of India funding.
- ❖ This has proved the efficacy of the process in Indian geo-mining condition and paved way for taking up commercial development in other suitable areas.



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Development of CMM: CMPDI's Endeavor

- ❖ Ministry of coal has made CMPDI as Nodal Agency for development of CMM in India.
- ❖ CMPDI took up exercises for identification of suitable CMM blocks within CIL mining lease hold areas and prepared data dossiers on 5 such areas
- ❖ in addition, CMPDI also made assessment of CMM resource in the projectised areas of few operating opencast mines.
- ❖ CMPDI floated tender for identification of suitable developer for commercial development of CMM in the 5 identified areas within CIL mining leasehold areas.
- ❖ Certain issues emerged regarding operationalisation of CMM and this matter was under deliberation between different ministries.
- ❖ The matter has been sorted out in a meeting held in August 2012 and this will facilitate commercial development in the identified blocks.



India CBM/CMM Clearinghouse

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- India CBM/CMM Clearinghouse has been established at CMPDI, Ranchi in Nov'08 under the aegis of MoC and USEPA.
- This will help promotion of development of CMM/CBM in country.
- Web Site uploaded highlighting the opportunities of CMM development in India with templates relating to database on CBM/CMM.
- Technical papers related with CBM/CMM development uploaded on web site.
- A News Letter highlighting the accomplishment made during the first year was also posted on the website.
- The Clearinghouse is facilitating training programmes and also sponsoring visits for attending seminars and on-sight training.



India CBM/CMM Clearinghouse

- The term of Clearinghouse has since expired after completion of the initial 3 years.
- Ministry of Coal, Govt. of India has given its consent of extension of the terms of the Clearinghouse for a further period of 3 years.
- A proposal has been sent for consideration of USEPA.



India CBM/CMM Clearinghouse...

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Thank You