

# India Coal Sector Coal Sector Update to the 27<sup>th</sup> Session of the Global Methane Initiative (GMI) Coal Subcommittee

---

24 September 2018

Central Mine Planning & Design Institute



*cmpdi*  
A Mini Ratna Company



भारत कोकिंग कोल लिमिटेड  
**BHARAT COKING COAL LIMITED**  
A Mini Ratna Company  
(A Subsidiary of Coal India Limited-A Maharatna Company)



# Presentation outline

---

- India's energy scenario
- Coal: Epitomizes energy in India
- Development of CMM: India's Perspective
- Development of CBM/CMM: CIL/CMPDI's Endeavour
- India CBM/CMM Clearinghouse and other Endeavors
- Conclusion

# India's Energy Scenario

---

- India is one of the fastest growing economy of the World which represents 18% of the World population, with about 21% proportion of the population is living below the poverty line.
- The GDP growth of India is hovering over 7% and is forecasted to increase further.
- India is facing an uphill task to meet ever-increasing demand for energy to sustain the economic growth.
- To meet these need thrust is also on the development of coal based non-conventional energy resources i.e; CBM/CMM/AMM/VAM etc.
- Coal plays a dominant role in sustaining economic growth and energy budget of India

# Coal: Epitomizes Energy in India

---

- India's total Coal reserve is about 319 Billion Tonne
- India is the 3<sup>rd</sup> largest coal producing country after China and USA with the coal production of about 676 Million Tonne (MT) in 2016-17 (Coal India Limited contribution: 567 MT)
- India targeted to increase the Coal production up to 1.5 Billion Tonne by 2020.
- Studies suggest that Coal will remain the main source of energy supply in foreseeable future in India.
  - ✓ around 53% share in meeting India's total primary energy requirement;
  - ✓ 67% share in power generation.

# Coal: Epitomizes Energy in India ....

---

- There is ambitious program to increase coal production in coming years particularly from Underground Mines which will result in enhanced methane emissions due to coal mining operations;
- Capture and gainful utilization of Methane is on priority at Govt and Industry level under Clean Coal Development Initiatives.
- Methane emission from coal mining in India is a matter of concern which is around 1.2 BCM annually as per US EPA estimate.

# Development of CMM: India's Perspective

---

**Development of CMM is a priority area both at Govt. and Industry level:**

- **Harnessing and gainful utilization is targeted for environmental benefits, mine safety and getting much needed additional source of clean energy;**
- **Ministry of Coal (MoC) has made CMPDI a Nodal Agency for development of CMM in India;**
- **India CBM/CMM Clearinghouse established at CMPDI under the aegis of USEPA and MoC is facilitating commercial development of CMM since 2008;**
- **Govt. of India, Ministry of Coal has permitted exploration and exploitation of Coalbed Methane (CBM) from areas under coal mining lease allotted to Coal India Limited (CIL).**

# Development of CMM: India's Perspective

- **The Policy framework for Early Monetization of CBM issued in April, 2017 by GoI which provides marketing and pricing freedom to sell the CBM at Arm's Length Price in domestic market;**
- **In April, 2018, CCEA has given its approval for exemption of applicability of the ORD Act and PNG Rules within coal mining leasehold areas, Production and permission to engage experienced technical developers or service contractor from India or abroad as third party for CBM exploitation etc.**
- **Considering Govt. of India permission to CIL in July, 2015 and MoP&NG has issued revised notification on 8<sup>th</sup> May, 2018 on consolidated terms & conditions for grant of exploration and exploitation rights to Coal India Limited (CIL) and its subsidiaries from coal bearing areas for which they possess mining lease for coal in continuation of CBM Policy 1997 issued on 19<sup>th</sup> July, 1997 by MoP&NG;**

# Development of CMM: CIL/CMPDI's Endeavor

- A demonstration project for harnessing and utilization of CBM/CMM has been successfully implemented at Moonidih Mine of BCCL under UNDP/GEF/Gol funding, proving efficacy of the process in Indian geo-mining condition;
- CIL-ONGC Consortium implementing CBM Projects in Jharia CBM Block and Raniganj North CBM Block allotted to CIL-ONGC on nomination basis by Gol;
- CIL and its subsidiaries have also taken efforts for the commercial development of CBM/CMM/AMM in its mining leasehold areas;
- Initially two potential blocks have been delineated in Jharia Cf and Raniganj Cf for its harnessing;
- More blocks are under delineation in other coalfields under CIL leasehold.



# CBM/CMM Development in BCCL Area, Jharia Coalfield

## 1. Pre-drainage of methane in Moonidih UG mine (BCCL), Jharia Coalfield

- Pre-drainage in Seam XVIT has been planned to recovery methane to enhance safety, coal production and gainfully utilization of gas;
- A Global Tender for Pre-drainage of Coal Mine Methane and utilization from XVI Top seam of Moonidih Mine, Jharia Coalfield under BCCL has been published on 7<sup>th</sup> of September, 2018;
- Bid Submission Last date is 7<sup>th</sup> November, 2018.
- The tender and other can be downloaded from <https://coalindiatenders.nic.in/>

## 2. Jharia CMM/CBM Block (BCCL Area):

- BCCL Board has approved in-principle the Project Feasibility Report for CMM/CBM block of 24.32Sq. Km for Commercial development having CBM resource about 25.2 BCM;
- It is proposed to develop the block through MDO route for which BCCL appointed CMPDI as Project Management Consultant

# CMM/CBM development in ECL Area, Raniganj Coalfield

- An area of about 57 Sq. Km has been delineated in Raniganj Coalfield under ECL with Resource of about 3.93 BCM;
- Project Feasibility Report is under consideration of ECL Board to develop it through MDO route;

## CBM/CMM development in other CIL leasehold/command areas

- Potential Block delineation is under progress in Damodar Valley Cfs (Bokaro Cf, Jharia Cf) and Sohagpur Cf under CIL command areas and CIIP assessment is being done by CMPDI;
- CMPDI is also looking for CBM/CMM prospects in North-Eastern states of India other areas under CIL leasehold;
- CIL is also contemplating for simultaneous extraction of CMM/CBM and Coal in its command areas;
- Identification of abandoned UG gassy mines in CIL areas has been proposed for AMM Project.

# India CMM/CBM Clearinghouse

- **Established under the aegis of USEPA and MoC and is functional at CMPDI (Ranchi) since November, 2008 with an aim of development of CMM/CBM in the country;**
- **It showcase opportunities of CBM/CMM development in India and facilitate training programs;**
- **USEPA has further extended its support to 2021;**
- **Three International Workshops have been organized on the development of coal based non-conventional energy resources in India i.e; CBM/CMM at Ranchi (Jharkhand), India.**
- **It includes International Workshop on “Best Practices in Methane Drainage and Use in Coal Mines” organized jointly with Gol, CMPDI, US EPA & UNECE on 9<sup>th</sup> -10<sup>th</sup> March, 2017.**
- **Training on Reservoir Simulation for Project personnel and an International Workshop on “Pre-mine drainage” is proposed during last week January or 1<sup>st</sup> week of February, 2019.**

# Conclusion

---

- **Country is continuously making efforts to extract CMM/CBM from its coal mining areas to combat the climate change issues;**
- **Development of CMM from mining areas will lead future mining safer;**
- **Extraction and Utilization of CMM/CBM resources will bridge the gap between the supply and demand of energy which is environment friendly will contribute towards the country's energy budget;**
- **Resulting energy supply will be more affordable and sustainable;**
- **India is taking all efforts to make coal mining sustainable to environmental, social and economic dimensions.**

---

# Thank You

धन्यवाद