Panel Discussion:
Challenges and Opportunities for Capture and Use of Coal Mine Methane in the COVID-19 World

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Location: Ranchi (Jharkhand), India

GMI Coal Mines Virtual Subcommittee Meeting 23 July 2020
Relevant experience with the coal industry and CMM/VAM/AMM project development

- Self Introduction: Rajiw Lochan, General Manager, Clean Energy Department of CMPDI

- Central Mine Planning and Design Institute (CMPDI)
  - Is a Public Sector Undertaking (PSU) under Govt of India (GoI) of Ministry of Coal (MoC) and fully owned, one of the Subsidiary of Coal India Ltd (CIL); [www.cmpdi.co.in](http://www.cmpdi.co.in)
  - Is a specialist consultant for Coal & Minerals and Mining sector from Concept to Commissioning;
  - Having four decades of experience in Exploration, Mining and related fields Consultancy;
  - Have more than 900 multidisciplinary professionals expertise in Mineral exploration, Mine planning and design, Infrastructure engineering, Environmental management, Mineral beneficiation and many more.

- CMPDI is Project Implementing Agency (PIA) for the Development of CBM/CMM in Coal India Ltd (CIL)’s Leasehold areas for Coal producing subsidiary and committed to minimize GHG emission from Coal mine.
**Covid-19 pandemic’s impact to the coal industry**

- **Currently CIL operates 352 coal mines - 158 UG, 174 OC & 20 Mixed Mine;**
- More than 260 mines are abandoned or closed.

### Impact of Covid-19 on the Mining Sector

- Coal India Ltd.’s offtake hits seven-month low in April, 2020 as the nationwide Lockdown;
- Coal production hits six month low during Lockdown;
- Coal is an strategic sector for India and mine operations are continued during COVID-19 taking all precautions suggested by WHO and ICMR;
- CIL has over 250 thousand Employees. Recently few cases of COVID-19 have been reported;
- Coal Sector is entrusted to regain economy which dips due to COVID-19 Impact and various reforms in Coal Sector have been implemented by Government of India:
  - Commercial mining of coal allowed, with 41 blocks offered to the Private sector;
  - Coal blocks offered to private companies on revenue sharing basis, in-place of fixed cost;
  - Coal gasification/liquefaction to incentivized through rebate in revenue share;
  - Coalbed Methane (CBM) extraction rights to Coal India’s from its Leasehold areas;
  - CBM/CMM extraction from commercial mines also.

### ANNUAL Coal Production of India in last 3 Years

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Year</th>
<th>CIL Production</th>
<th>Country Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2017-18</td>
<td>567.37 MT</td>
<td>675.40 MT</td>
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<tr>
<td>2.</td>
<td>2018-19</td>
<td>606.89 MT</td>
<td>728.72 MT</td>
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<td>3.</td>
<td>2019-20</td>
<td>602.15 MT</td>
<td>729.10 MT</td>
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### Coal India Ltd.’s Offtake (Million Tonnes)

<table>
<thead>
<tr>
<th>Month</th>
<th>Offtake</th>
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</thead>
<tbody>
<tr>
<td>Oct-18</td>
<td>49.09 MT</td>
</tr>
<tr>
<td>Nov-18</td>
<td>47.37 MT</td>
</tr>
<tr>
<td>Dec-18</td>
<td>53.63 MT</td>
</tr>
<tr>
<td>Jan-19</td>
<td>56.05 MT</td>
</tr>
<tr>
<td>Feb-19</td>
<td>54.97 MT</td>
</tr>
<tr>
<td>March-19</td>
<td>53.45 MT</td>
</tr>
<tr>
<td>April-20</td>
<td>39.06 MT</td>
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</tbody>
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### Coal India Ltd.’s Production (Million Tonnes)

<table>
<thead>
<tr>
<th>Month</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov-18</td>
<td>50.02 MT</td>
</tr>
<tr>
<td>Dec-18</td>
<td>59.02 MT</td>
</tr>
<tr>
<td>Jan-19</td>
<td>63.11 MT</td>
</tr>
<tr>
<td>Feb-19</td>
<td>66.26 MT</td>
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<tr>
<td>March-19</td>
<td>84.36 MT</td>
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<tr>
<td>April-20</td>
<td>49.38 MT</td>
</tr>
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</table>
Being a form of natural gas, Coal Bed Methane (CBM) can be a good non-conventional energy resource for the nation. I congratulate @CoalIndiaHQ companies for this pioneering move. Best wishes for future endeavours!

@cmpdil

CMPDI Appointed as Principal Implementing Agency for Development of CBM in CIL Areas

A Memorandum of Agreement (MoA) has been signed between CMPDI and Bharat Coking Coals Limited (BCCL) & with Eastern Coal Fields Limited (ECL) for the Development of CBM in their leasehold areas.

CBM is a form of natural gas trapped in coal seams (underground) which can be extracted by mining into the seam.

CIL begins process of developing Rs 2,474 cr CBM projects

Companies are invited to bid for exploration, development, production, marketing of the blocks, CIL said. While the investment for Jharia (Jharkhand) CBM project is estimated at Rs 1,879 crore, Ramganj (West Bengal) project estimated at Rs 595 crore.

Global Methane Initiative

Covid-19’s impacts to CMM/AMM emissions and projects

- Coal Industry has been affected by COVID-19 Pandemic, but Coal India Ltd (CIL), ensures uninterrupted coal production and supply to linked industries in India taking all precautions and safety measures;
- CMM/CBM Development projects in CIL Areas has been initiated by CMPDI and CIL’s subsidiary producing companies;

Development in CMM/CBM in CIL Areas even after COVID-19 outbreak:
- BCCL floated Global NIT for Selection of Developer for Drainage of Coal Mine Methane (CMM) from Moonidih UG Mine to reduce methane emission and safety of mine;
- Global NIO has been floated to invite bids to select “CBM Developer (CBMD)” for Jharia CBM Block-I (BCCL Leasehold areas) and Raniganj CBM Blocks (ECL Leasehold areas);
- CMPDI is the Project Implementing Agency (PIA) for Development of these CBM Blocks;

As part of the Rs 20 lakh crore fiscal stimulus package, the Finance Minister on Saturday, announced auction of CBM extraction rights in 13 coal mines.
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