Diversification Agenda of CPSUs

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Diversification has become a strategic necessity for CPSEs in the coal industry. The traditional reliance on coal is increasingly seen as unsustainable, both environmentally and economically. Diversification efforts are aimed at reducing dependence on coal, enhancing sustainability, and ensuring long-term viability. CPSEs are exploring various avenues, including renewable energy projects, coal gasification, and advanced technologies such as pump storage plants. These initiatives are designed to align with global trends, meet regulatory requirements, and tap into new revenue streams.

Central Public Sector Enterprises (CPSEs) in the coal industry have recognized the need to diversify their operations to adapt to changing market dynamics and address environmental concerns. These enterprises have adopted various strategies to mitigate the risks associated with dependence on coal and position themselves for sustainable growth: -

1.1. Coal Gasification Project -

Under the Coal gasification Mission, Ministry of Coal (MoC) set an ambitious target to achieve 100 MT of coal gasification by 2030, to fulfil India's dual objective of self-reliance and energy independence.

Government has launched a scheme with financial outlay of ₹ 8500 cr. to promote coal/lignite gasification in the country under 03 categories. Under category-I, LOA has been issued to JV of CIL-BHEL for undertaking coal to ammonium nitrate SCG project in Odisha, JV of CIL-GAIL for undertaking coal to SNG SCG project in West Bengal and JV of CIL-BPCL for undertaking coal to SNG SCG project in Maharashtra. Under category-III, LOA has been issued to New Era Cleantech Solution for setting up of coal to ethanol project in Maharashtra. The timelines for opening of bid for Category-II RFP is January 10, 2025.

India's first pilot project for Underground Coal Gasification initiated and drilling has been commenced at Kasta coal block on 22.06.2024.

1.2 Renewable Energy Initiatives:

Ministry of Coal has targeted to set up Renewable Energy projects of 14.4 GW capacity (NLCIL - 7.0 GW, CIL - 5.0 GW and SCCL - 2.4 GW) by 2029-30. Till date, upto December, 2024, RE projects with 1796.5 MW (NLCIL -1431 MW, SCCL-245.5 MW and CIL – 120 MW) has been commissioned.

Under "PM Surya Ghar: Muft Bijli Yojana", Coal PSUs have planned to saturate all office buildings/ residential complexes of govt buildings by December 2025. Under this scheme, 78.235 MW solar capacity is planned to be installed, out of this 16.809 MW solar capacity has already been added.

1.3 Thermal Power Plants –

i. **SECL-MPPGCL JV -1X660MW (Madhya Pradesh):** The SECL-MPPGCL joint venture

in Madhya Pradesh, located in the Anuppur District, has a power generation capacity of 1x660 MW. The project's cost is estimated between ₹ 5600 Cr. to ₹ 7254 Cr., with commissioning anticipated by August 2028. The ownership structure of the venture allocates 49% to SECL and 51% to MPPGCL.

ii. **MCL-MBPL - 2X800MW(Odisha):** Mahanadi Basin Power Limited's project as a wholly owned subsidiary of CIL, in Odisha, located in Sundergarh District, boasts a capacity of 2x800 MW. With a project cost totaling ₹ 15947+/ (-)20% Cr. Unit-1 is anticipated to be commissioned by Dec 2029.

iii. **Ghatampur Thermal Power - 3x660MW Plant (Uttar Pradesh):** Neyveli Uttar Pradesh Power Limited (NUPPL) is a joint venture between NLC India and Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited. It is located in Ghatampur, Kanpur Nagar, Uttar Pradesh. The equity participation is divided between NLCIL and UPRVUNL in a ratio of 51:49. Unit #1 Commissioned in December, 2024. Unit #2 expected in March, 2025 and Unit #3 in June, 2025.

iv. **NLC Talabira Thermal Power Project - 3x800MW (Odisha):** NLCIL Board has granted in-principal approval for the establishment of a coal-based pithead power station with a capacity of 3x800 MW at Tareikela, located in the Jharsuguda District of Odisha. The foundation stone was laid by the Hon'ble Prime Minister on February 3, 2024. Currently, site preparation work is underway. The anticipated completion dates for the units are as follows: Unit #1 in March 2029, Unit #2 in September 2029, and Unit #3 in March 2030.

1.4 Critical Minerals

Critical minerals are essential for modern technologies, including batteries, renewable energy systems, and electronics. Coal companies are exploring following opportunities in this sector to diversify their operations and tap into new revenue streams -

- **Asset Acquisition within India:** Coal companies are planning to participate in the Critical Mineral Auction Tranche II, floated by the Ministry of Mines, to acquire assets within the country. This strategic move aims to secure essential resources for future technological advancements and energy solutions. CIL has already acquired one graphite block namely ChhoteKhatali.
- **Overseas Acquisitions:** Companies are also exploring international opportunities, with NDAs signed for potential asset acquisitions abroad. The goal is to secure a diverse supply of critical minerals from global sources, ensuring a steady and reliable flow of resources.
- **Partnerships**: Collaborations with international partners and experts are being pursued to facilitate the acquisition and development of critical mineral assets. These partnerships are crucial for navigating the complexities of global mineral markets and securing strategic resources.

1.5 Pump Storage Plants - Pump storage plants are essential for energy storage, providing a method to balance supply and demand on the grid while supporting the integration of renewable energy sources. By storing energy, these plants ensure a stable and reliable power supply, playing a critical role in modern energy systems. Total of 05 projects of CIL and 01 Project of NLCIL will be implemented in 1st phase. To ensure the viability and strategic alignment of pump storage projects, Tata Consultants have been appointed to conduct comprehensive feasibility studies. These studies will assess various factors to confirm the feasibility of

proposed project.

1.6 Coal Bed Methane (CBM):

- Methane is a powerful greenhouse gas generated during the coalification process stored as adsorbed in coal seams generally called as Coalbed Methane (CBM). Coalbed Methane has established itself as a source of clean energy.
- Extraction of Coal Bed methane will help in enhancing coal production by making future coal mining safe. Additionally, it will prevent the emission of Methane into atmosphere.
- MoP&NG had issued partial modification of CBM Policy, 1997 vide notification dated 8th May 2018 outlined consolidated terms and conditions for the grant of exploration and exploitation rights for CBM to Coal India Limited and its Subsidiaries from its coal-bearing areas for which they possess mining lease for coal mining which also will be deemed lease for CBM extraction.
- CMPDI is the Principal Implementing Agency (PIA) under a Memorandum of Agreement (MoA) with the respective Subsidiary on the Operationalization of CBM Project(s).
- CMPDI has delineated CBM blocks for commercial exploitation, initially in Damodar Valley Coalfields (under leasehold of BCCL and ECL) and Sohagpur Coalfield (under SECL leasehold). The Project Feasibility Reports (PFR) of four CBM Blocks- (i) Jharia CBM Block-I(BCCL), Jharia Coalfield, (ii) Raniganj CBM Block(ECL), Raniganj Coalfield (iii) Sohagpur CBM Block – I (SECL Areas), Sohagpur Coalfield and (iv) Jharia CBM Block-II(BCCL), Jharia Coalfield have been approved by respective company Board.
- The Jharia CBM Block-I (BCCL leasehold area) has been awarded to M/s Prabha Energy Limited (PEL) through Global Bidding for the extraction of CBM and currently the Block is under the Exploration Phase.

Drilling Site at Jharia CBM Block-I (BCCL)