



**सीएमपीडीआई**  
मिनी रत्न  
**cmpdi**  
Mini Ratna

सेन्ट्रल माईन प्लानिंग एण्ड डिजाइन इन्स्टीच्यूट लिमिटेड  
(कोल इण्डिया लिमिटेड की अनुषंगी कम्पनी / भारत सरकार का एक लोक उपक्रम)  
गोन्दवाना प्लेस, कान्के रोड, राँची - 834 008, झारखंड (भारत)  
Central Mine Planning & Design Institute Limited  
(A Subsidiary of Coal India Limited / Govt. of India Public Sector Undertaking)  
Gondwana Place, Kanke Road, Ranchi - 834 008, Jharkhand (INDIA)  
CORPORATE IDENTITY NUMBER: U14292JH1975GOI001223

An ISO 9001: 2015 & ISO 37001: 2016 Certified Company

Letter No.:CMPDI/BDD/Hiring Consultant/Pre-NIT/2026

Date: 01.07.2026

## Notice for Pre-NIT Meeting

Central Mine Planning and Design Institute Limited will hold a Pre-NIT meeting on 10.07.2026 at 11:00 a.m. IST through hybrid mode with respect to "Hiring of Consultants for Diversification and Business Development Consultancy Services of CMPDIL on an as and when required basis".

For the purpose of Pre-NIT meeting, a draft document for "Hiring of Consultants for Diversification and Business Development Consultancy Services of CMPDIL on an as and when required basis" can be downloaded from the following websites (<https://www.coalindiatenders.nic.in>) (<https://www.cmpdi.co.in>).

Interested Parties are requested to use following link to join the Video Conference:

<https://cmpdi.webex.com/cmpdi/j.php?MTID=m3780e196ddca09f8893c4f6189d8b489>

Friday, July 10, 2026 11:00 AM | 3 hours | (UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi

Meeting number: 2519 841 0339

Password: 7G588fxResX

Join by video system

Dial [25198410339@cmpdi.webex.com](mailto:25198410339@cmpdi.webex.com)

You can also dial 210.4.202.4 and enter your meeting number.

For any further update related to the Pre-NIT meeting, the interested parties are requested to regularly visit CMPDIL website (<https://www.cmpdi.co.in>).

Please note that the attached document is only tentative and may be modified based on the feedback received after the meeting. The objective of the interaction shall be to obtain feedback and inputs from participants regarding:

- Broad scope of work and deliverables,
- Appropriate evaluation methodology,
- Eligibility criteria,
- Resource and manpower requirements,
- Estimation, payment structure and deliverables, and
- Other critical contractual and operational aspects.

The participants are required to present a detailed presentation to provide inputs on above points. Queries/Observations/Comments on the draft document and regarding this pre-NIT, if any, may please be emailed in the format attached with this notice on or before 08.07.2026 05:30 PM IST to [gmbd.cmpdi@coalindia.in](mailto:gmbd.cmpdi@coalindia.in) with copy to [mohit.gaharana@coalindia.in](mailto:mohit.gaharana@coalindia.in). The email should have subject "Comments on draft document for Hiring of consultants...- <Name of the Party>".

-Sd-

(Vikrant Gupta)  
Head of Department  
Business Development Division  
CMPDIL HQ, Ranchi

## 1. CONTEXT:

Central Mine Planning & Design Institute Limited (CMPDI), subsidiary of Coal India Limited, is a premier consultancy and research organization in the field of coal and mineral exploration, mining, and environmental management. Established in 1975 and headquartered in Ranchi, Jharkhand, CMPDI has played a pivotal role in shaping India's mining sector through its comprehensive services spanning geological exploration, mine planning and design, environmental studies, laboratory testing, remote sensing, and data management. With a multidisciplinary team of highly qualified professionals and state-of-the-art technology, CMPDI ensures sustainable, efficient, and safe resource utilization.

As the energy and industrial landscape evolves, CMPDI is now strategically focusing on business diversification and development beyond traditional mining. The organization aims to expand into emerging domains such as renewable and clean energy, critical minerals, waste-to-wealth initiatives, digital transformation, AI-based predictive maintenance, infrastructure development, and sustainability consulting. This diversification aligns with the Government of India's vision for *Atmanirbhar Bharat* and sustainable industrial growth. By leveraging its technical expertise, strong institutional framework, and legacy of innovation, CMPDI aspires to become a multidisciplinary solutions provider—supporting not only the coal and mineral sectors but also contributing to broader national goals of energy security, environmental stewardship, and technological advancement.

The objective of the interaction shall be to obtain feedback and inputs from participants regarding:

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- Eligibility criteria,
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- Other critical contractual and operational aspects.

Please note that this document is only tentative and may be modified based on the feedback received after the meeting.

## 2. SCOPE OF WORK:

CMPDI has accordingly launched a transformational effort and wishes to engage the services of a leading consulting firm for **“Hiring of Consultants for Diversification and Business Development Consultancy Services of CMPDIL on an as and when required basis”**.

The Consultant is expected to identify and assess possible diversification and value addition opportunities in the following identified Sectors:

- **Critical Minerals:** Pilot extraction, commercial viability, regulatory & environmental compliance, partnerships for commercialization, beneficiation etc.
- **Surface Coal Gasification:** Identification and evaluation of suitable coal for Surface Coal Gasification (SCG), including pre-feasibility and techno-economic studies, selection of appropriate gasifier technologies, and optimisation of plant configuration. Formulation of commercialization strategies covering business models, financial viability, technology partnerships, and market assessment for methanol, ammonia, hydrogen, SNG, and other value-added products.
- **Underground Coal Gasification (UCG):** Identification and evaluation of suitable coal seams/blocks for UCG development, including pre-feasibility studies, pilot studies, and techno-economic assessment of identified UCG blocks. Assessment of viability for coal-to-chemicals (methanol, ammonia, etc.) and syngas-based

power generation, along with preparation of environmental, safety, operational, and regulatory frameworks for UCG development.

- **Solar Power Value Chain:** Solar PV at reclaimed/abandoned mine sites, backward integration (modules, glass), storage, logistics optimization, new technologies (bifacial panels, storage).
- **Non-Fuel Minerals Advisory:** Market intelligence, supply-demand analysis, pricing trends, sourcing strategies, partnerships, M&A, block bidding opportunities.
- **Coal Bed Methane (CBM):** Reservoir modelling, production forecasting, and techno-economic evaluation for development of Coal Bed Methane (CBM) resources
- **Shale Gas:** Evaluation of commercialization prospects of Shale Gas
- **Carbon Trading & Exchange:** Advisory on carbon credit development, trading platforms, emissions verification, net-zero strategies.
- **Emerging Renewable Tech:** Perovskite solar feasibility, UAV-based solar cleaning, lifecycle cost and efficiency studies, adoption roadmap, Pump Storage Plants(PSP), Wind Power etc.
- **AI/ML & IT Applications in Mining & other sectors:** Development of Website, Dashboards, Apps (iOS & Android) etc in mining or other allied sectors, Predictive maintenance, geological modelling, coal quality prediction, fire detection, safety compliance monitoring, GenAI for automated reporting, AI-driven training and simulation.
- **Mine Reclamation & Ecology:** Standardized reclamation plans, drone/GIS/LiDAR monitoring, biodiversity restoration, pump storage potential, satellite-based ecological monitoring.
- **New Business Portfolio:** Explore additional opportunities in energy transition, urban planning, carbon markets, mineral security beyond those listed or any other opportunity beneficial for CMPDI.

It is envisaged that the entire focused study of the identified Activity(ies) will be divided into following modules:-

### **Module-1(Market research and sectoral assessment)**

#### **1.1 Evolving Global and Domestic Industry Landscape**

Comprehensive analysis of the global and domestic landscape of the sector, integrating both macroeconomic and microeconomic perspectives. The study should assess market dynamics shaped by climate goals, energy transition, and shifting geopolitical trends. Scenario planning must include opportunity sizing and demand outlook over the mid-term (3–5 years) and long-term (10+ years), factoring in de-carbonization pressures, technology disruptions, and policy shifts, especially in energy, mining, and critical mineral sectors.

#### **1.2 Historical Trends and Forward-Looking Industry Dynamics**

Evaluation of historical sectoral performance and future projections, including analysis of:

- Sectoral growth trajectory and demand evolution
- Competition intensity and structural shifts in market players
- Cost and margin structures across the value chain
- Demand-supply imbalances
- Impact of global commodity cycles and de-carbonization mandates
- Incorporate benchmarking of Indian performance against global leaders, identifying gaps, innovation opportunities, and risks.

#### **1.3. Value Chain and Developmental Risk Mapping**

In-depth value chain mapping, identifying upstream dependencies, processing and beneficiation requirements, and downstream market linkages. The assessment should highlight:

- Bottlenecks in logistics, processing, and market access
- Technology gaps in downstream conversion (e.g., coal to chemicals, REEs, green hydrogen)
- Risks across the development cycle including financing, land acquisition, environmental approvals, and talent availability

#### **1.4. Evolving Regulatory, Fiscal, and Policy Environment**

Assessment of the legal, regulatory, economic, and taxation frameworks governing the sector in India and globally. This includes:

- Impacts of new ESG compliance norms
- Carbon pricing and offset regulations
- Royalty, Cess, and tax changes
- Ease-of-doing-business indicators
- Risk arising from regulatory uncertainty, judicial interventions, and socio-environmental challenges

#### **1.5. Strategic Fitment and Leverage of CMPDIL's Core Strengths**

Assessment of the strategic relevance of the sector in alignment with national priorities (e.g., energy security, critical mineral access, circular economy). Analyze how the sector can leverage:

- CMPDIL's core strengths in exploration, resource management, logistics, and scale
  - CMPDIL's technical expertise and digital modernization
  - CMPDIL's land bank, skilled manpower, and financial capacity
- Identify sectors that align with CMPDIL's diversification roadmap, such as coal-to-chemicals, renewables, critical minerals, or sustainable materials, and quantify their potential for value addition and long-term resilience.

### **Module 2: Market Entry Strategy, Business Modelling, and Feasibility Study**

#### **2.1. Comprehensive Market Entry Strategy and Investment Pathways**

Formulate detailed and comparative market entry strategies for identified sectors—spanning greenfield, brownfield, and strategic collaborations. The study must cover:

- Capital investment options across build, buy, partner models
  - Acquisition, joint ventures, or Public-Private Partnerships (PPP)
  - Revenue generation models tailored to different sectors (e.g., annuity-based, throughput, royalty, offtake-based)
  - High-level cost structure and breakeven analysis
  - Phased investment plans aligned with risk appetite and resource availability
- Emphasis should be on agility, asset-light opportunities, and alignment with long-term strategic goals of energy transition and value addition.

#### **2.2. Capability Gap Assessment and Risk Mitigation Strategy**

Identify operational, technical, financial, and organizational capability gaps for each proposed diversification vertical. The analysis should:

- Map existing vs required capabilities
- Highlight gaps in technology, talent, digital maturity, partnerships, or regulatory experience
- Recommend a structured risk management framework (commercial, technical, regulatory, ESG)
- Provide short-, mid-, and long-term mitigation strategies including upskilling, tech partnerships, and advisory support

#### **2.3. Financial Feasibility, Capital Structure & Target Operating Model**

Undertake detailed financial modelling for each shortlisted opportunity, including:

- Revenue, cost, and EBITDA projections
  - Investment outlay, IRR, NPV, and payback period
  - Capital structure options (equity, debt, blended financing, viability gap funding)
  - Definition of Target Operating Model (TOM) including governance, control systems, operational levers, and KPIs
- Scenarios should reflect global commodity cycles, policy changes, and inflationary impacts.

#### **2.4. Technology and Operational Infrastructure Assessment**

Map the required technological infrastructure, automation, and digital platforms needed for the proposed business verticals. Assess:

- Availability of scalable and mature technologies
- Readiness of operational infrastructure (land, utilities, logistics)
- Integration of Industry 4.0 tools, IoT, AI/ML, and ESG-compliant technologies
- Recommendations for tech sourcing (build vs buy vs partner)

#### **2.5. Phased Implementation Roadmap and Business Integration Plan**

Develop a function-wise and business-wise implementation roadmap, including:

- Key milestones and sequencing of activities (e.g., site selection, approvals, construction, hiring)
- Timelines, dependencies, and performance benchmarks
- Change management plans to integrate the new ventures with existing business systems
- Business outcomes and review checkpoints

#### **2.6. Diversification Program Governance & Organization Design**

Design a robust and fit-for-purpose organizational structure for managing the diversification program, including:

- Dedicated program management office (PMO)
- Cross-functional governance teams
- Resource allocation, reporting lines, decision rights
- Advisory board and strategic partners' engagement

#### **2.7. Organizational Readiness & Change Strategy**

Conduct a cultural and organizational readiness assessment to evaluate CMPDIL's preparedness for transformation. Include:

- Stakeholder engagement level
  - Change acceptance patterns
  - Institutional flexibility and absorptive capacity
- Recommend a phased, people-centric change management strategy—including communication, training, leadership alignment, and incentives to foster adoption.

#### **2.8. Strategic Communications Toolkit & Engagement Plan**

Design a communications strategy and toolkit tailored for internal and external stakeholders to:

- Build awareness about the diversification vision, objectives, and timeline
  - Align leadership and frontline employees through regular updates
  - Engage key ecosystem players (government, partners, regulators)
- Deliverables include visual aids, FAQs, key messages, campaign ideas, and engagement calendar.

#### **2.9. Talent Strategy for New Business Landscape**

Analyze the skills, competencies, and behavioural attributes needed for successful execution of CMPDI's diversification strategy. Assess:

- Current workforce capability vs future demands
- Skill development roadmap

- Learning & development strategy aligned with new technologies and business functions

### **Module 3: Bid Process Management and Selection of Project Implementation Agencies (PIAs)**

#### **3.1. Development of Target Operating Model & Execution Roadmap**

The Consultant shall develop a robust and adaptive Target Operating Model (TOM) tailored to the operationalization of identified diversification strategies. This model must include:

- Key business processes and process governance
- Required operational infrastructure including land, utilities, logistics
- Scalable IT and digital infrastructure enabling monitoring, reporting, and transparency
- Fit-for-purpose organization structure for execution and oversight
- Governance framework ensuring accountability, escalation mechanisms, and performance review cadence
- Clearly defined KPIs and operational metrics aligned with sector-specific benchmarks

The Consultant shall also prepare a phased execution roadmap, outlining:

- Strategic initiatives and enabling actions
  - Prioritization of projects
  - Resource allocation strategy
  - Dependencies and risk mitigation pathways
- This roadmap must align with CMPDI's diversification timeline, financial outlay, and sustainability goals.

#### **3.2. Preparation of Bid Documentation & Procurement Facilitation**

Based on the feasibility reports, the Consultant shall assist in end-to-end procurement documentation and process design, including:

- Drafting of bid documents such as Expression of Interest (EOI), Request for Qualification (RFQ), Request for Proposal (RFP), and model Concession Agreements
  - Incorporation of qualification criteria, technical evaluation methodology, and financial bid structures relevant to each sector (e.g., annuity, revenue share, EPC, PPP)
  - Integration of ESG and Make-in-India considerations where applicable
- The Consultant shall also:
- Conduct and facilitate pre-bid meetings, industry outreach, and roadshows to maximize bidder participation
  - Prepare detailed responses to bidder queries, and maintain bid transparency as per public procurement norms
  - Leverage digital procurement platforms (GeM, CPPP) and ensure alignment with CVC and government bidding guidelines

#### **3.3. Bid Evaluation, Finalization & Agreement Signing Support**

The Consultant shall provide comprehensive support to CMPDI during the bid evaluation and award process, including:

- Evaluation of Technical and Financial bids as per pre-defined scoring and eligibility criteria
- Preparation of bid evaluation reports, compliance checklists, and summary notes for approval committees
- Assist in final negotiations with shortlisted bidders on commercial, legal, and operational aspects

- Facilitate signing of the Concession Agreement, ensuring alignment with long-term goals, risk allocation principles, and regulatory requirements. Additionally, the Consultant may assist in:
- Drafting Letter of Award (LoA)
- Setting up initial project management protocols and handover frameworks to the selected PIAs

## **Module 4: Program Evaluation and Monitoring (PEM)**

### **4.1. Reporting Framework and Key Performance Indicators**

The Consultant shall define a comprehensive reporting and analytics framework encompassing:

- Reporting frequency, formats, templates, and escalation protocols
- Clear categorization of lead and lag KPIs, covering financial, operational, ESG, risk, and stakeholder engagement dimensions
- Sector-specific benefit realization metrics, e.g., emissions reduction, value chain localization, land reclamation, etc.
- Mechanisms for real-time performance dashboards for CMPDI leadership. This system will enable evidence-based evaluation, corrective actions, and outcome tracking.

### **4.2. Risk & Challenge Resolution Protocol**

The Consultant shall set up a structured process for:

- Identification and classification of roadblocks—technical, regulatory, human resource, vendor-related, or political
- Root-cause analysis and recommendation of risk mitigation strategies
- Design of escalation frameworks and scenario-based contingency plans
- Use of early-warning indicators and predictive analytics to flag emerging risks before escalation. This proactive approach will ensure continuity, minimize delays, and protect the strategic objectives of the diversification program.

### **4.3. Sustainability and Continuous Improvement Mechanisms**

The Consultant shall recommend long-term sustenance measures to embed improvements achieved through the program. This shall include:

- Redesign and standardization of Standard Operating Procedures (SOPs)
- Introduction of new work practices aligned with digital tools and sustainability goals
- Evolution of measurement systems and dashboards for continuous performance management
- Design and institutionalization of lead/lag indicators for outcome and impact monitoring
- Recommendations on governance policy updates, periodic reviews, and internal audit protocols
- Development of self-assessment and continuous feedback systems to maintain program momentum post-implementation

## **3. SUPPORT FROM CMPDIL**

CMPDIL shall provide all necessary information/documents/data, which shall include:

- a) CMPDIL will provide all support required for the study
  - Interviews with departmental heads
  - Interviews with customer/ JV partners/ suppliers/vendors subject to time and availability
  - Site visits at CMPDIL facilities and on ground work support

- Sharing of relevant documents and contracts
  - Meetings with top management
- b) CMPDI will provide all necessary information/documents/data required for the study
- a. Historical operational and financial performance information/documents
  - b. Any other information as may be required by the Consultant, subject to internal and external confidential requirements. Non – Disclosure Agreement will be signed.

### **3.1 Consultancy Monitoring Committee (CMC)**

To review the progress of the work and evaluate reports submitted by the Consultant there will be a 3–4-member Consultancy Monitoring Committee (CMC). The consultant shall submit and present the report to this CMC which will evaluate the report and certify it as acceptable. CMC shall also monitor from time to time that the progress of the assignment is satisfactory or not.

### **5. Composition and Deployment of Subject Matter Experts (SMEs)**

Consultant shall make available a pool of Subject Matter Experts (SMEs). The deployed SMEs shall support CMPDI in strategy formulation, technical analysis, coordination with CMPDI teams, preparation and presentation of reports to CMPDI management or its nominated representatives, assistance in stakeholder/client engagements, and any other activities necessary to fulfill the scope of the assignment