



Bid Number/बोली क्रमांक (बिड संख्या):
GEM/2025/B/6047209
Dated/दिनांक : 12-03-2025

Bid Document/ बिड दस्तावेज़

Bid Details/बिड विवरण	
Bid End Date/Time/बिड बंद होने की तारीख/समय	02-04-2025 13:00:00
Bid Opening Date/Time/बिड खुलने की तारीख/समय	02-04-2025 13:30:00
Bid Offer Validity (From End Date)/बिड पेशकश वैधता (बंद होने की तारीख से)	120 (Days)
Ministry/State Name/मंत्रालय/राज्य का नाम	Ministry Of Coal
Department Name/विभाग का नाम	Coal India Limited
Organisation Name/संगठन का नाम	Coal India Limited
Office Name/कार्यालय का नाम	Coal India Limited Hq
क्रैता ईमेल/Buyer Email	kamal.motupalli@nic.in
Total Quantity/कुल मात्रा	1
Item Category/मद केटेगरी	Pre-NIT for Supply, Installation & Commissioning of of Mine Slope Stability Monitoring Radar System
GeMARPTS में खोजी गई स्ट्रिंग / Searched Strings used in GeMARPTS	Pre-NIT for Supply, Installation and Commissioning of of Mine Slope Stability Monitoring Radar System with 1 year warranty and 7 years Comprehensive Annual Maintenance Contract after warranty period.
GeMARPTS में खोजा गया परिणाम / Searched Result generated in GeMARPTS	Category not available on GeM for the text string uploaded by the buyer
अधिसूचना के लिए चयनित प्रासंगिक श्रेणियाँ / Relevant Categories selected for notification	<ul style="list-style-type: none">Level Transmitter Radar Type
MSE Exemption for Years Of Experience/अनुभव के वर्षों से एमएसई छूट/ and Turnover/टर्नओवर के लिए एमएसई को छूट प्राप्त है	Yes
Startup Exemption for Years Of Experience/अनुभव के वर्षों से स्टार्टअप छूट/ and Turnover/ टर्नओवर के लिए स्टार्टअप को छूट प्राप्त है	Yes

Bid Details/बिड विवरण

Document required from seller/विक्रेता से मांगे गए दस्तावेज़	Certificate (Requested in ATC),OEM Authorization Certificate,Additional Doc 1 (Requested in ATC),Additional Doc 2 (Requested in ATC),Additional Doc 3 (Requested in ATC),Additional Doc 4 (Requested in ATC),Compliance of BoQ specification and supporting document *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
Do you want to show documents uploaded by bidders to all bidders participated in bid?/	Yes
Bid to RA enabled/बिड से रिवर्स नीलामी सक्रिय किया	Yes
RA Qualification Rule	H1-Highest Priced Bid Elimination
Type of Bid/बिड का प्रकार	Two Packet Bid
Time allowed for Technical Clarifications during technical evaluation/तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय	7 Days
Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)	No
Evaluation Method/मूल्यांकन पद्धति	Total value wise evaluation
Financial Document Required/वित्तीय दस्तावेज़ की आवश्यकता है।	Yes
Arbitration Clause	No
Mediation Clause	No

EMD Detail/ईएमडी विवरण

Required/आवश्यकता	No
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ePBG Detail/ईपीबीजी विवरण

Required/आवश्यकता	No
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MII Purchase Preference/एमआईआई खरीद वरीयता

MII Purchase Preference/एमआईआई खरीद वरीयता	Yes
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MSE Purchase Preference/एमएसई खरीद वरीयता

MSE Purchase Preference/एमएसई खरीद वरीयता

Yes

1. If the bidder is a Micro or Small Enterprise as per latest definitions under MSME rules, the bidder shall be exempted from the requirement of "Bidder Turnover" criteria and "Experience Criteria" subject to meeting of quality and technical specifications. If the bidder is OEM of the offered products, it would be exempted from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. In case any bidder is seeking exemption from Turnover / Experience Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer.

2. If the bidder is a Startup, the bidder shall be exempted from the requirement of "Bidder Turnover" criteria and "Experience Criteria" subject to their meeting of quality and technical specifications. If the bidder is OEM of the offered products, it would be exempted from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. In case any bidder is seeking exemption from Turnover / Experience Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer.

3. Preference to Make In India products (For bids < 200 Crore): Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is denoted in the bid document. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020. Only Class-I and Class-II Local suppliers as per MII order dated 4.6.2020 will be eligible to bid. Non - Local suppliers as per MII order dated 04.06.2020 are not eligible to participate. However, eligible micro and small enterprises will be allowed to participate. The buyers are advised to refer the OM No.F.1/4/2021-PPD dated 18.05.2023 [OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017.

4. Purchase preference will be given to MSEs having valid Udyam Registration and whose credentials are validated online through Udyam Registration portal as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail themselves of the Purchase preference, the bidder must be the manufacturer / OEM of the offered product on GeM. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises and hence resellers offering products manufactured by some other OEM are not eligible for any purchase preference. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service and Buyer will decide eligibility for purchase preference based on documentary evidence submitted, while evaluating the bid. If L-1 is not an MSE and MSE Seller (s) has / have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such MSE Seller shall be given opportunity to match L-1 price and contract will be awarded for 25% (selected by Buyer) percentage of total quantity. The buyers are advised to refer the OM No. F.1/4/2021-PPD dated 18.05.2023 [OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017. Benefits of MSE will be allowed only if seller is validated on-line in GeM profile as well as validated and approved by Buyer after evaluation of documents submitted.

5. Reverse Auction would be conducted amongst all the technically qualified bidders except the Highest quoting bidder. The technically qualified Highest Quoting bidder will not be allowed to participate in RA. However, H-1 will also be allowed to participate in RA in following cases:

- i. If number of technically qualified bidders are only 2 or 3.
- ii. If Buyer has chosen to split the bid amongst N sellers, and H1 bid is coming within N.
- iii. In case Primary product of only one OEM is left in contention for participation in RA on elimination of H-1.
- iv. If L-1 is non-MSE and H-1 is eligible MSE and H-1 price is coming within price band of 15% of Non-MSE L-1
- v. If L-1 is non-MII and H-1 is eligible MII and H-1 price is coming within price band of 20% of Non-MII L-1

Excel Upload Required/एक्सेल में अपलोड किए जाने की आवश्यकता :

Price Break-up - [1741699614.xlsx](#)

Pre Bid Detail(s)

Pre-Bid Date and Time	Pre-Bid Venue
26-03-2025 12:00:00	Through VC. Web-link will be shared in due course of time.

Pre-NIT For Supply, Installation & Commissioning Of Of Mine Slope Stability Monitoring Radar System (1 set)

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

Technical Specifications/तकनीकी विशिष्टियाँ

Buyer Specification Document/क्रेता विशिष्टि दस्तावेज़	Download
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Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Motupalli Kamal Manohar	700156,COAL BHAWAN, 04-1111, A III, ACTION AREA 1 A, NEW TOWN, RAJARHAT, KOLKATA	1	180

Buyer added Bid Specific Additional Scope of Work

S.No.क्र.सं.	Document Title	Description	Applicable/रिवर्स प्रभार के अनुसार जीएसटी i.r.o. Items
1	Draft NIT View	Draft NIT	Pre-NIT For Supply, Installation & Commissioning Of Of Mine Slope Stability Monitoring Radar System(1)

The uploaded document only contains Buyer specific Additional Scope of Work and / or Drawings for the bid items added with due approval of Buyer's competent authority. Buyer has certified that these additional scope and drawings are generalized and would not lead to any restrictive bidding.

Buyer Added Bid Specific Terms and Conditions/क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें

1. Scope of Supply

Scope of supply (Bid price to include all cost components) : Supply Installation Testing Commissioning of Goods and Training of operators and providing Statutory Clearances required (if any)

2. Purchase Preference (Centre)

Purchase preference to Micro and Small Enterprises (MSEs): Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail the Purchase preference, the bidder must be the manufacturer of the offered product in case of bid for supply of goods. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service. If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L-1+ 15% of margin of purchase preference /price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for percentage of 25% of total value.

3. Purchase Preference (Centre)

Purchase Preference linked with Local Content (PP-LC) Policy:

The bid clause regarding "Preference to Make In India products" stands modified in this bid and shall be governed by the PPLC Policy No. FP-20013/2/2017-FP-PNG dated 17.11.2020 issued by MoP&NG as amended up to date. Accordingly, bidders with Local Content less than or equal to 20% will be treated as "Non Local Supplier". The prescribed LC shall be applicable on the date of Bid opening. Sanctions on the bidders for false / wrong declaration or not fulfilling the Local Content requirement shall be as per the PPLC policy. Further following additional provisions are added in the certification and verification of local content provision of the Preference to Make in India clause:

- i. In case of foreign bidder, certificate from the statutory auditor or cost auditor of their own office or subsidiary in India giving the percentage of local content is also acceptable. In case office or subsidiary in India does not exist or Indian office/subsidiary is not required to appoint statutory auditor or cost auditor, certificate from practicing cost accountant or practicing chartered accountant giving the percentage of local content is also acceptable.
- ii. Along with Each Invoice: The local content certificate (issued by statutory auditor on behalf of procuring company) shall be submitted along with each invoice raised. However, the % of local content may vary with each invoice while maintaining the overall % of local content for the total work/purchase of the pro-rata local content requirement. In case, it is not satisfied cumulatively in the invoices raised up to that stage, the supplier shall indicate how the local content requirement would be met in the subsequent stages.
- iii. The bidder shall submit an undertaking from the authorized signatory of bidder having the Power of Attorney along with the bid stating the bidder meets the mandatory minimum LC requirement and such undertaking shall become a part of the contract.

4. Buyer Added Bid Specific ATC

Buyer uploaded ATC document [Click here to view the file.](#)

Disclaimer/अस्वीकरण

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to

exemption provided to such sellers under GeM GTC.

3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process. (However, in bids for [attached categories](#), trials are allowed as per approved procurement policy of the buyer nodal Ministries)
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

All GeM Sellers / Service Providers are mandated to ensure compliance with all the applicable laws / acts / rules including but not limited to all Labour Laws such as The Minimum Wages Act, 1948, The Payment of Wages Act, 1936, The Payment of Bonus Act, 1965, The Equal Remuneration Act, 1976, The Payment of Gratuity Act, 1972 etc. Any non-compliance will be treated as breach of contract and Buyer may take suitable actions as per GeM Contract.

[This Bid is also governed by the General Terms and Conditions/ यह बिड सामान्य शर्तों के अंतर्गत भी शासित है](#)

In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws./जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो। बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्रवाई का आधार होगा।

---Thank You/धन्यवाद---

Draft NIT

The bids(tender) are invited for Supply, Installation and Commissioning of ----- nos. of Mine Slope Stability Monitoring Radar System with 1 year warranty and 7 years Comprehensive Annual Maintenance Contract after warranty period.

1. Purpose:

The stability of bench and dump slopes is of paramount importance in opencast mining operations, as it directly impacts the production efficiency, safety, and long-term sustainability. However, opencast mining is encountered with challenging geo-mining conditions that may increase the risk of strata failure. Further Such failures can trigger large-scale bench collapses or overburden (OB) dump failures, leading to catastrophic consequences, including loss of human lives, significant damage to machinery, and environmental degradation.

To address these risks, it is crucial to implement proactive measures for continuous monitoring of bench slopes, dump slopes, and ultimate pit slopes. Early detection of potential failure indicators or precursors allows for the timely evacuation of personnel and machinery, thereby protecting the lives and reducing operational and financial losses.

Mine Slope Stability Radar (MSSR) is a state-of-the-art technology that offers real-time monitoring and early warning systems for impending slope failures. This innovative solution provides adequate advance notice to safely relocate personnel and equipment before the actual failure of slope occurs, ensuring enhanced safety, operational continuity, and risk mitigation.

2. Eligible Bidders

2.1 Qualification Criteria

The bidder should be in a position to offer and supply in specified delivery period at least 50% of the total quantity/number for which the bids have been invited.

2.2 The bidders should clearly indicate in their offer the sub-clause against which they claim to be qualified as eligible bidder:

2.2.1 Indigenous Manufacturers:

Indigenous manufacturers of the equipment of tendered capacity or higher are eligible to quote against the tender. Indigenous Manufacturer can be 'Class-I Local Supplier' or 'Class-II Local Supplier' as defined under clause 2.4.2.

In case the indigenous manufacturer is quoting directly, but has involvement of an Indian agent for the execution of certain activities against the tender, then the indigenous manufacturer shall have to upload scanned copy of tender specific Manufacturer's Declaration Form as per **Annexure-2**, signed by themselves i.e. manufacturer against the Subsidiary Company Tender, indicating the Tender Reference No. and date along with the offer.

2.2.2 Indian Agent:

Authorized Indian Agent of an Indigenous manufacturer is also eligible to quote on behalf of its principal against the tender, in case manufacturer does not quote directly to any organization in India as a matter of its corporate policy (except in situations like supplies to OEM /OES/ OPM, supplies of spares and consumables bundled with supply of equipment, supplies to customers not covered by dealer network due to geographical/ logistics constraints). However, in such case, authorized Indian Agent shall have to upload scanned copy of tender specific Manufacturer's Authorization as per **Annexure-2**, signed by the manufacturer to quote against the Subsidiary Company Tender, indicating the Tender Reference No. and date along with the offer. The manufacturer is also required to submit a certificate that it is not quoting directly against the tenders of any organization in India (excepting the situations mentioned above, if applicable) as a matter of its corporate policy and if, subsequently, at any stage, it is found that it has quoted directly to any organization in India excepting the situations mentioned above, it shall be liable for penal action for willful suppression of facts or furnishing of wrong information, false declaration or manipulated or forged document by the bidder or using any other illegal/unfair means as per provision of this GeM Bid / Subsidiary Company Purchase Manual, if the justification provided by the bidder has not been considered adequate and satisfactory by Subsidiary Company

The authorized Indian Agent is to upload scanned copies of details in respect of its organization along with the copies of documents like certificate of incorporation / registration etc. along with the offer.

The Indian Agent should be in existence for 3 years on the date of

tender opening, irrespective of date of appointment as Indian Agent.

In case, an Indian Agent is participating in a tender on behalf of one manufacturer, it is not allowed to participate / quote on behalf of another manufacturer in the same tender for the same item / product. Further, in a tender, either manufacturer can quote or its authorized Indian Agent can quote but both are not allowed to participate/ quote in the same tender.

Also one manufacturer can authorize only one Indian agent to quote in the same tender.

All the bids, not quoted as per the above guidelines, will be rejected.

The term 'Agent' broadly includes Distributor, Dealer, Channel Partner etc.

2.2.3 Indian Manufacturing entity of foreign manufacturer

Indian manufacturing entity of the foreign manufacturer is eligible to bid as Indigenous Manufacturer if the Foreign Manufacturer manufactures equipment of the same or similar capacity as the tendered equipment; and the Indian Manufacturing entity has sufficient facility for manufacturing, supply and After Sales Service Support in India for equipment of same or similar capacity as the tendered equipment. In such case the bidder shall be required to submit copy of valid Legal Agreement / Collaboration Agreement/ License Agreement / MOU with foreign (principal) manufacturer digitally signed for the equipment being offered to prove their status as Indian Manufacturing entity of foreign manufacturer. Such bidders shall be required to submit tender specific declaration by the Principal Manufacturer. Both the Indian manufacturing entity and its principal manufacturer should confirm to ensure supply of spares, consumables and service support for smooth running of the equipment during its life time. If the documents are related to the OEM or principal, the self-certification of OEM or principal shall also be required.

2.2.4 Collaboration Agreement :

In case of Collaboration Agreement or Memorandum of Understanding (MoU) with the principal manufacturer, the collaboration agreement / MoU should be valid on date of tender opening and should also remain valid at least up to supply and commissioning of the last equipment covered in the contract.

However, the principal manufacturer has to confirm that supply of spares & consumables and service support will be ensured for smooth running of the equipment during its lifetime. The agreement / MoU evincing collaboration of the Indian Firm / Company with the Principal Manufacturer must be a document registered in India under the provision of Indian Registration Act, 1908, irrespective of likelihood that the same may not be compulsorily registered under the provision of Section-17 of the said Act. In the event of termination of collaboration agreement / MoU, the principal manufacturer will be responsible for the fulfillment of contractual obligations either by itself or through alternate collaborations / arrangements.

2.2.5 License Agreement

In case Indigenous manufacturer, who has manufactured, supplied and serviced the same or similar equipment (to the equipment being offered), is participating under License agreement with the company having valid Intellectual Property Rights (IPR) for the equipment being offered, the License agreement should be valid on date of tender opening and should also remain valid at least up to supply and commissioning of the last equipment covered in the contract. The bidder and licensor having IPR for the equipment being offered should confirm to ensure supply of spares & consumables and service support for smooth running of the equipment during its lifetime. The agreements evincing License agreement of the bidder and licensor must be a document registered in India under the provisions of the Indian Registration Act, 1908, irrespective of the likelihood that the same may not be compulsorily registered under the provision of Section-17 of the said Act.

2.2.6 The average Annual Financial Turnover of the bidder during the last 3 years, ending 31st March of the previous financial year, should be at least 30% of the total estimated value of the tender.

2.2.7 Non-Local Supplier :

Non-Local Supplier' as defined under clause 2.4.2 are not eligible to quote.

2.3 After Sales Service Support :

The bidder / manufacturer shall have After Sales Service Support facilities in India like Depot/ Warehouse for supply of spare parts, Workshop facilities for servicing and repair of assemblies, sub-assemblies and equipment, trained technical manpower and training facilities for providing training to Subsidiary

Company personnel, etc. Details will also include information about the ownership of the facilities i.e. whether they are owned by the manufacturer or its authorized Indian Agent.

Note: The minimum criteria for After Sales Service Support facilities shall be as follows:

- i) Proper Depot / warehouse to store required spare parts for facilitating timely supply of spare parts and consumables required at the site for repair and maintenance of the requirement.
- ii) Workshop facilities comprising following for servicing, repairing and testing of assemblies/sub-assemblies of the offered equipment:
 - a) Proper tools and tackles
 - b) Proper testing and measuring tools to ensure quality of repair / assembled product.
- iii) Training facilities to impart classroom and on the job training to the Subsidiary Company personnel.
- iv) The facilities should have sufficient trained personnel to carry out all activities.

In case the bidder/ manufacturer does not have the After Sales Service Support facilities in India, the bidder will have to submit an undertaking along with its offer that in the event of placement of order on them, they will establish the above facilities in India within the completion period of warranty of the first equipment commissioned. In such case, the bidder shall have to provide additional PBG for 30% of the contract value. This 30% PBG will be released after establishment of After Sales Service Support facilities in India, subject to confirmation of the same by GM(S&C) of the Subsidiary Company. However, the supplier shall have to submit PBG for 10% value as per Performance Bank Guarantee clause (Refer Clause-22) to be kept valid for the remaining period of the contract plus 3 months processing period before release of 30% PBG. This 10% PBG will be released after satisfactory performance of all equipment/ items and fulfillment of contractual obligations including warranty obligations.

Note: In case the manufacturer is the bidder, the After Sales Service Support Facilities of its Indian Agent or vice –a-versa may also be acceptable on meeting minimum criteria.

2.4 Purchase Preference under ‘Make in India’ Policy

Under ‘Make in India’ Policy of Government of India, Purchase Preference will be given to eligible bidders as per Public Procurement (Preference to Make in India), Order 2017 issued vide order No. P-45021/2/2017-B.E.-II dated 15th June 2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019,

04.06.2020, 16.09.2020, 04.03.2021 & 19.07.2024) of Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry. In case of any further guidelines issued prior to 15 days from the tender publishing date, the same will also become applicable.

2.4.1 In terms of the above said policy, purchase preference shall be given to 'Class-I Local Supplier' in the following manner:

- i Among all qualified bids, the lowest bid will be termed as L-1. If L-1 is 'Class-I Local Supplier', the contract for full quantity will be awarded to L-1.
- ii If L1 bid is not a class-1 Local Supplier, 50% of the order quantity shall be awarded to L-1 bidder. Thereafter, the lowest bidder among the 'Class 1 Local Supplier', will be invited to match the L-1 price for remaining 50% quantity subject to the 'Class 1 Local Supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class 1 Local Supplier', subject to matching the L-1 price.

In case such lowest eligible 'Class 1 Local Supplier' fails to match the L-1 price or accepts less than the offered quantity, the next higher Class-1 Local Supplier within the margin of purchase preference shall be invited to match the L-1 price for remaining quantity and so on and the contract shall be awarded accordingly. In case some quantity is still left uncovered on class-1 Local supplier, then such balance quantity may also be order on the L1 bidder.

- iii For item non divisible in nature, for purchase preference provisions of Make in India Policy dated 19.07.2024 may please be referred.
- iv Margin of Purchase preference shall be 20%.
- v 'Class-II Local Supplier' will not get purchase preference.

2.4.2 The definitions of 'Class-I Local Supplier', 'Class-II Local Supplier', 'Non-Local Supplier', 'Local Content' and 'Margin of Purchase Preference' are as follows :

- a. 'Class-I Local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement has minimum 'local content' of 50%.
- b. Class-II Local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement has minimum 'local

content' of 20%.

- c. Non - Local Supplier' means a supplier, whose goods and / or services, offered for procurement, has local content less than 20%.
- d. 'Local Content' means the amount of value added in India which shall be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

As per the OM dated 04.03.2021, it has been clarified by the Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry that bidders offering imported products will fall under the category of Non-Local Suppliers. They cannot claim themselves as Class-I Local Suppliers/Class II Local Suppliers by claiming the services such as transportation, insurance, installation, commissioning, training and after-sales service support like AMC/CMC etc. as local value addition.

In view of above, "Local content" will not include services such as transportation, insurance, installation, commissioning, training and after-sales service support like AMC/CMC etc. as local value addition.

As per OM dated 19.07.2024 it has been clarified, through explanatory notes for calculation of local content, by the Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, that:

- i. Imported items sourced locally from resellers / distributors shall be excluded from calculation of Local content.
- ii. The license fees / royalties paid / technical changes paid out of India shall be excluded from local content calculation.
- iii. Procurement/Supply of repackaged/refurbished/rebranded imported products as understood commonly shall be treated as reselling of imported products and shall be excluded from calculation of local content. The definition of repackaged/refurbished/rebranded imported products is as follows;

'Refurbishing' means repair or reconditioning of an imported product does not amount to manufacture because no new goods come into existence.

'Repackaging' means repacking of imported goods from bulk pack to smaller packs would not ordinarily amount to manufacture of a new item.

'Rebranding' means relabeling or renaming or change in symbol or logo/makes or corporate image of a company/organization/firm for an imported product would amount to rebranding.

- iv. To ensure that imported items sourced locally from

resellers/distributors are excluded from calculation of local content, you are to provide, the cost of such locally-sourced imported items (inclusive of taxes) along with break-up on license/royalties paid/technical expertise cost etc. sourced from outside India. For items sold by bidder as reseller, OEM certificate for country of origin to be submitted.

- v. For contracts involving supply of multiple items, weighted average of all items to be taken while calculating the local content.
- e. 'Margin of Purchase Preference' means the maximum extent to which the price quoted by a "Class-I Local Supplier" may be above the L1 for the purpose of purchase preference. The margin of purchase preference shall be 20%.
- f. Special treatment for items covered in PLI Scheme (As per OM dated 19.07.2024 of Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry):
The manufacturers manufacturing an item under PLI scheme shall be treated as deemed Class II local supplier for that item unless they have minimum local content equal to or higher than that notified for Class-I local supplier for that item, provided the manufacturer has received incentive from the concerned PLI Ministry for the item. The above shall be applicable for the specific time period only, as notified by concerned PLI Ministry.

2.4.3 Verification of local content:

- a. The 'Class-I local supplier'/'Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier'/'Class-II local supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.
- b. The 'Class-I local supplier'/'Class-II local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content. The certificate shall also indicate details of the location(s) at which the local value addition is made.
- c. At the time of execution, the supplier / contractor shall be required to give local content certification duly certified by cost / chartered account in practice. For cases where it is not possible to provide certification by Cost /Chartered Accountant at the time of execution, the supplier shall be permitted to provide the certificate for local content from Cost / Chartered Accountant after completion of the Contract, within time limit acceptable to Subsidiary Company i.e. 3 months. In case the contractor / supplier does not meet the

stipulated local content requirement and the category of the supplier changes from Class-I to Class II / Non-local or from Class-II to Non-Local, a penalty upto 10% of the contract value may be imposed, However, contract once awarded shall not be terminated on this account.

- d. Nodal Ministry /CIL may constitute committees with internal and external experts for independent verification of self-declarations / auditor's / accountant's certificates on random basis and in the case of complaints.
- e. There will be a fee of Rs 2.00 Lakhs fees for such complaints.
- f. False declarations will attract banning of business of the bidder or its successor(s) for a period upto two years, along with such other actions as may be permissible under law.
- g. A supplier who has been debarred by any procuring entity for violation of above Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities

2.4.4 Reciprocity Clause [Clause 10 (d) of PPP-MII Order 2017] :

- a) When a Nodal Ministry / Department identifies that Indian suppliers of an item are not allowed to participate and / or to compete in procurement by any foreign government, due to restrictive tender conditions which have direct or indirect effect of barring Indian companies such as registration in the procuring country, execution of projects of specific value in the procuring country etc., it shall provide such details to all its procuring entity under their administrative control for appropriate reciprocal action.
- b) Entities of countries which have been identified by the Nodal ministry / department as not allowing Indian Companies to participate in their Government procurement for any item related to that Nodal Ministry shall not be allowed to participate in Government procurement in India for all items related to that Nodal Ministry / Department except for the list of items published by the Ministry / Department permitting their participation.
- c) The term "entity" of a country shall have the same meaning as under the FDI policy of DPIIT as amended from time to time.
- d) Further, vide OM No. P-45021/2/2019-PP(BE-II) dated 13.03.2020 of the Department for Promotion of Industry and Internal Trade, Ministry of Commerce & Industry, GOI, the following has been communicated with regard to Clause-10(d) of PPP-MII Order 2017:
 - i. It is clarified that if a country does not procure globally particular sector, Indian manufacturers are being excluded in that particular country and the reciprocity clause as per clause 10(d) of PPP-MII Order 2017 may be invoked.

- ii. Clause-10(d) of the PPP-MII Order 2017 may be invoked when restrictive practices are employed which have a direct or indirect effect of barring Indian companies from participating in Public Procurement of any country. These include not allowing participation of foreign companies in general and Indian companies in specific in Public Procurement; insistence on restrictive conditions such as registration in the procuring country / execution of projects of specific value in the procuring country etc.

2.5 Purchase Preference to Micro & Small Enterprises (MSEs)

- a. Minimum 25% of the tender quantity will be procured from MSEs in case they are participating in the tender, provided their quoted price is up to 115% of price of the L1 eligible bidder and they agree to match the L-1 price.
- b. Further, out of this 25%, sub-targets of 4% may be procured from MSEs owned by the SC/ST entrepreneurs and 3% from women owned MSEs.
- c. Classification of Micro and Small Enterprise is as under:
 - i) Micro Enterprise -Enterprise where the investment in plant and machinery does not exceed Rupees one crore and turnover does not exceed five crore rupees;
 - ii) Small Enterprise- Enterprise where the investment in plant and machinery does not exceed ten crore rupees and turnover does not exceed fifty crore rupees.
- d. MSEs shall submit copy of Udyam Registration Certificate issued by Ministry of MSME.

It is necessary for MSEs to upload the above document, failing which such bidders will not get the benefits as per Public Procurement Policy for Micro and Small Enterprise (MSEs) Order, 2012.

The benefits to MSEs under Public Procurement Policy for Micro and Small Enterprise (MSEs) Order, 2012 shall be restricted to the unit(s) /plant(s) which are appearing in the registration certificate issued by the above mentioned registering authority. For other units/ plants, no benefits under the above policy shall be given. Further, the bidder will

submit an undertaking that it will supply the offered items to Subsidiary Company from the unit/ plant for which it will avail benefits under the Public Procurement Policy for Micro and Small Enterprise (MSEs) Order, 2012.

- e. The MSEs owned by SC/ST are classified as under:
 - i) In case of proprietary MSE, proprietor(s) shall be SC/ST
 - ii) In case of partnership MSE, the SC/ST partners shall be holding at least 51% shares in the unit
 - iii) In case of Public Limited Companies, at least 51% share shall be held by SC/ST entrepreneurs at any given point of time.
 - iv) In case of Private Limited Companies, at least 51% share shall be held by SC/ST promoters.
- f. In case MSE is an enterprise wholly owned by Scheduled Caste (SC) or Scheduled Tribe (ST), then SC or ST will have to submit a copy of necessary caste certificate issued by State Authority as per Law.
- g. **Change in status of MSE to Medium Enterprise** – In case of an upward change in terms of investment in plant and machinery or equipment or turnover or both, and consequent re-classification, an enterprise shall continue to avail of all non-tax benefits of the category it was in before the re-classification, for a period of three years from the date of such upward change. Non-tax benefits include benefits of various schemes of the Government, including Public Procurement Policy, Delayed Payments, etc. In such cases of upward revision in MSE status, the firm shall produce documentary evidence clearly indicating the date of such revision.

2.6 Startups

Startups means an entity, incorporated or registered in India not prior to ten years, with annual turnover not exceeding Rs. 100 crores in any preceding financial year, working towards innovation, development or improvement of products or processes or services, or if it is a scalable business model with a high potential of employment generation or wealth creation. Provided that such entity is not formed by splitting up, or reconstruction of a business already in existence. Provided also that an entity shall cease to be a startup if its turnover for the previous financial years has exceeded Rs. 100 crores or it has completed 10 years from the date of incorporation/ registration. In order to avail benefits provided to Startups, the entity is to be recognized by DPIIT.

2.7 Relaxation for MSEs and Startups.

- a) The prior experience and turnover criteria are not applicable for Startups & MSEs and no documents regarding provenness will be required to be submitted by these categories of bidders if they submit documents/ certificate towards quality, assurance and capability from some authority like MSME, NSIC, etc.
- b) However, if these bidders have submitted documents to prove the Startup/MSE status for the tendered item but have not submitted documents/certificate towards quality, assurance and capability from some authority like MSME, NSIC, etc., if needed, Subsidiary Company may assess the techno-commercial capability of these bidders to manufacture and deliver goods as per the prescribed quality and technical specification before awarding contract to them. For this purpose, these bidders have to submit the details of plant & machinery, quality control arrangements, etc., in a 'Proforma for Equipment and Quality Control' provided in tender document along with their offer for verification of their technical capability for which if required, a techno-commercial team of Subsidiary Company may visit the manufacturing unit of the bidder.**(Annexure-4)**
- c) In case there is deficiency in technical capability of the firm, the same will be communicated to them for improvement in the quality of their product for future tenders along with the observation that their offer cannot be considered for relaxation against the tender in question.
- d) If favorable technical capability reports obtained earlier on such firms for supply of the item in question as per the required specification is available, these may be considered for granting relaxation to the criteria of prior experience and prior turnover provided date of such reports is not more than one year from the date of opening of tender.
- e) If bidders have submitted documents to prove the Startup/MSE status for the tendered item and their products are ISI marked/DGMS approved/Proven in Subsidiary Company or its Subsidiary companies/Proven product of the ancillary unit of a Subsidiary Company of CIL, they will be required to submit the following applicable related documents, for relaxation from the criteria of prior experience and prior turnover:
 - A Valid BIS Marking License for the quoted items
OR
 - Rate contract issued by CIL/ its subsidiary for the quoted items

OR

- A Valid DGMS Approval certificate for the quoted items

OR

- Proven Ancillary certificate issued by Subsidiary Companies for the quoted items

The document(s)/certificate(s) furnished by the bidders for ISI markings or DGMS approval for any relaxation should be valid on the date of tender opening and a self-certified copy of such document(s) / certificate (s) valid on the date of supply, duly notarized, must accompany their offer.

2.8 Special provisions regarding eligibility of bidders from the countries sharing land border with India - these are as per extant guidelines vide Order (Public Procurement No. 4) no. F.7/10/2021-PPD(1) dated 23.02.2023 of Department of Expenditure, Ministry of Finance, GoI; (in case of any change prior to 15 days from the tender publishing date, the same will be applicable):

- i. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority i.e. Registration Committee constituted by DPIIT, Ministry of Commerce and Industry, GoI.
- ii. Any bidder (including an Indian Bidder) who has a Specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority i.e. Registration Committee constituted by DPIIT, Ministry of Commerce and Industry, GoI.
- iii. "Bidder" (including the term 'tenderer', 'consultant', 'vendor' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated herein before, including any agency, branch or office controlled by such person, participating in a procurement process.
- iv. 'Transfer of Technology' means dissemination and transfer of all forms of commercially usable knowledge such as transfer of know-how, skills, technical expertise, designs, process and procedures, trade secrets, which enables the acquirer of such

technology to perform activities using the transferred technology independently. (Matter of interpretation of this terms shall be referred to the Registration Committee constituted by DPIIT, Ministry of Commerce and Industry, GoI and the interpretation of the Committee shall be final).

- v. 'Specified Transfer of Technology' means a transfer of technology in the sectors and/or technologies, specified below, occurring on or after 23.07.2020.
- vi. "Bidder (or entity) from a country which shares a land border with India" for the purpose of the above Order means: -
 - a) An entity incorporated, established or registered in such a country; or
 - b) A subsidiary of an entity incorporates, established or registered in such a country; or
 - c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d) An entity whose beneficial owner is situated in such a country; or
 - e) An Indian (or other) agent of such a country; or
 - f) A natural person who is a citizen of such a country; or
 - g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
- vii. The beneficial owner for the purpose of (vi. d) above will be as under:
 - i In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation-

- a) "Controlling ownership interest" means ownership of or entitlement to, more than twenty-five per cent of shares or capital or profits of the company;
- b) "Control" shall include the right to appointment majority of the directors or to control the management or policy decisions, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
- ii In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one more juridical person, has ownership of

entitlement to more than fifteen percent of capital or profits of the partnership;

- iii In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one more juridical person, has ownership of or entitlement to more than fifteen percent of property or capital or profits of such association or body of individuals;
- iv Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
- v In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- vi. An 'Agent', for the purpose of the Order, is a person employed to do any act for another, or to represent another in dealings with third persons.

Note:

- i. A person who procures and supplies finished goods from an entity from a country which shares a land border with India will, regardless of the nature of his legal or commercial relationship with the producer of the goods, be deemed to be an Agent.
 - ii. However, a bidder who only procures raw material, components etc. from an entity from a country which shares a land border with India and then manufactures or converts them into other goods will not be treated as an Agent.
- b). Sensitive Sectors/Technologies (relevant only for the provision on ToT arrangements)
- i. Certain Sectors and Technologies have been identified as sensitive from the national security point of view. Mining and extraction (including deep sea project) i.e. which include Coal India Ltd. and its subsidiaries, is considered as Category-II sensitive Sector. The technologies as below are considered sensitive technologies:
 - a. Additive Manufacturing (e.g. 3D Printing)

- b. Any equipment having electronic programmable components or autonomous systems (e.g. SCADA systems)
 - c. Any technology used for uploading and streaming of data including broadcasting, satellite communications etc.
 - d. Chemical Technologies,
 - e. Biotechnologies including Genetic Engineering and Biological Technologies.
 - f. Information and Communication Technologies.
 - g. Software
- ii. For Category-II sensitive Sectors, bidders with ToT arrangement in the sensitive technologies indicated above, with an entity from a country which shares a land border with India shall require registration.
 - iii. In category II sensitive Sectors, the Secretary (or any officer not below the rank of Joint Secretary of GoI, so authorized by the Secretary) of the Ministry/Department of the GoI is empowered, after due consideration, to waive the requirement of registration for a particular item/application or a class of items/applications from the requirement of registration, even if included as Sensitive Technologies mentioned above. The Ministry/Department concerned shall intimate DPIIT and National Security Council Secretariat (NSCS) of their decision to waive the requirement of registration. Ministries/Departments of the GoI are not required to consult DPIIT / NSCS before deciding and are only required to intimate the decision to DPIIT/NSCS. If any point is raised by DPIIT/NSCS, it should be considered in future procurement; ongoing procurement for which such waiver was granted need not be interrupted or altered.
- c). Registration should be valid at the time of submission of bids and at the time of acceptance of bids. If a bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution.
 - d). The above provisions will not apply to bidders (or entities) from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects. Updated lists of countries to which lines of credit have been extended or in which development projects are undertaken, are available on the website of the Ministry of External Affairs.

Procurement of spare parts and other essential service support like Annual Maintenance Contract (AMC) / Comprehensive Maintenance Contract (CMC) including consumables for closed systems, from Original Equipment Manufacturers or their authorized agents, shall also be exempted from the requirement of registration.

- e). All the bidders are required to submit the following certificates:
- a) “We have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; We certify that this bidder is not from such a country”
OR
We certify that we are from such a country and have been registered with the Competent Authority. We hereby also certify that this bidder fulfils all requirements in this regard and are eligible to be considered [evidence of valid registration by the Competent Authority is attached, if applicable]”.

 - b) “We have read the clause regarding restrictions on procurement from a bidder having Transfer of Technology arrangement. We certify that we do not have any Transfer of Technology arrangement requiring registration with the competent authority”
OR
We certify that we have valid registration to participate in this procurement [evidence of valid registration by the Competent Authority is be attached, if applicable]”.

Note: If such certificates given by the bidder whose bid is accepted are found to be false, this would be a ground for debarment and further legal action in accordance with the Purchase Manual and law.

3.0 Provenness Criteria:

Procurement against this tender shall be made only for proven equipment on complying with the provenness of any of the clauses below or on complying with Clause 3.4 below. Equipment offered by a bidder shall be considered proven as detailed herein below. The bidders should clearly indicate in their offer the sub-clause against which they claim to have quoted for proven equipment and evaluation shall be done only as per the sub-clause indicated.

- 3.1** The equipment offered by the tenderer shall be considered proven provided 1 (one) No of quoted model or similar equipment, as defined below or combination thereof, must have been supplied by the bidder/OEM/OEM’s representatives in India to mining industry and/or to the other Industries

(Private or Government/ Public Sector Undertaking) and all of them have consistently performed satisfactorily (the definition of “satisfactory performance” is given below in **Note-i**) for a minimum period of 3 (three) years from the date of commissioning. The performance of only those equipment would be considered for assessing provenness which have been commissioned 3 years prior to the date of opening of tender but not prior to 10 years from the date of opening of tender (window period).

if any indigenous content is added by the indigenous manufacturer (Class-1 Supplier/Class-II Supplier) in the quoted model of the equipment, the foreign collaborator/foreign Principal/OEM will give an undertaking (**Annexure-3**) for successful performance of the equipment during its lifetime of the equipment with the indigenization carried out by the indigenous manufacturer .

- 3.2** In case the quoted model or similar equipment, as defined below, has not been supplied by the bidder/OEM/OEM’s representatives in India or if supplied and commissioned in India but the same has not completed required years of performance for provenness as mentioned above, the offered equipment will be considered proven, if the minimum worldwide population is of 05 (five) nos. of offered or similar equipment or combination thereof which have been commissioned 3 (three) years prior to the date of opening of tender but not prior to 10 (ten) years from the date of opening of tender and all of them performed satisfactorily (the definition of “satisfactory performance” is given below in **Note-i**) for a minimum period of 3 (three) years from the date of commissioning. The worldwide population of the equipment will be considered for provenness only when the bidder gives an undertaking that the quoted model or similar equipment has not been supplied in India or if supplied and commissioned in India, the same has not completed required years of performance for provenness as mentioned above at **sub clause-3.1**

Common Notes for Clause-3 (Provenness Criteria):

- i. **“Satisfactory Performance”** means the supplied equipment must have achieved the guaranteed annual availability, if any, as per the performance guarantee clause of the supply orders/ contracts for a minimum period of 3 (three) years from the date of commissioning. In case supply orders/ contracts do not have provision for guaranteed annual availability, the bidder will submit satisfactory performance report issued by end users as per benchmark regarding performance of equipment, if any, incorporated in the supply orders/ contracts against which these equipment were supplied. In case, the Performance Report(s) of the End-User(s) is not available, the

bidder shall submit self-certification claiming satisfactory performance of the equipment supplied. The performance of all the machines in the particular contract/order which have completed the required period of performance shall have to be provided for technical evaluation purpose.

- ii. If the bidder claims provenness of the quoted model based on similar equipment, acceptance criteria for similar equipment shall be as per **sub clause-3.4** below.
- iii. Performance report of supplies made to India will prevail over those made in foreign countries. The performance of quoted model or similar equipment supplied in foreign countries will be considered only when equipment has either not been supplied in India or if supplied, not completed required years of performance.
- iv. For the purpose of provenness of quoted model of the bidders supplied against the Trial Orders placed by Subsidiary Company and/or its Subsidiaries, the performance of the total quantities of the Trial Order will be considered.

In case the bidder claims provenness of the quoted model based on trial order/contract placed on them in the past for which the period of performance is two years as per trial order/contract, then the same shall be considered for the provenness of the quoted model. In case the period of performance is three years as per trial order/contract placed on them in the past, then the same shall continue to remain as three years for consideration of provenness for the quoted model unless the trial order / contract is amended to consider two years for provenness by the Order Placing authority.

However in case the bidder claims provenness of the quoted model based on regular order/contract placed on them in the past, performance period shall continue to remain as three years for considering provenness of the quoted model as per NIT.

- v. Copies of Purchase / Supply Order(s) placed on the other foreign subsidiaries of the OEM will be considered for provenness of the quoted model provided the link to the OEM is established.
- vi. Window period is 10 years from the date of opening of tender.

3.3 “Similar Equipment” shall be such equipment, which fulfils the following:

Similar Equipment means a Radar system along with supporting software and accessories capable of monitoring slope movement in OB dumps and mine benches and giving alerts in all weather conditions

3.4 Acceptance Criteria for Similar Equipment :

3.4.1 If the bidder claims provenness of the quoted model based on similar equipment, then the similar equipment should have performed satisfactorily for a minimum period of three (03) years from the date of commissioning along with satisfactory performance of quoted model for a minimum period of one (01) year from the date of commissioning within the window period as indicated above. The performance of all the machines in the particular order which have completed one year shall have to be provided i.e. if the supply order contains more than one (01) quantity of quoted model, bidder has to submit the performance report of all the quantities of the quoted model which have completed one year of operation, for technical evaluation purpose

3.4.2 If the bidder claims provenness of the quoted model based on similar equipment and the similar equipment has performed satisfactorily for a minimum period of three (03) years from the date of commissioning but quoted model has not worked for a minimum period of one (01) year from the date of commissioning within the window period as indicated above, then the offer may be accepted subject to following conditions:

- a) The quoted model should have been designed, manufactured and supplied to the end-user but has not been commissioned or if commissioned, has not completed one year of operation after the commissioning. Documentary evidence for past supply of the quoted model is to be provided along with the offer.

Or

The quoted model is an upgraded version of the existing model with improved and the latest drive line / system etc. and has not been manufactured and/or supplied earlier. In such case, the basic model should remain the same. Documentary evidence of past supply of the existing model whose upgraded version has been offered, is to be provided along with the offer.

- b) (i) The successful bidder will be allowed to supply the quantity of first lot as indicated in Schedule of Requirement.

- (ii) The firm shall be required to furnish additional Performance Bank Guarantee of 100% of the total landed value of equipment first lot. The validity of the additional PBG shall be sufficient to cover the performance of the 1st lot and the period taken for issuance of clearance from the order issuing authority for supply of the remaining quantity.
- c) On satisfactory performance of all the equipment of first lot for one year from the date of commissioning to be certified by the **General Manager (Safety & Conservation/S&R)**, clearance shall be obtained from the order issuing authority for supply of the remaining quantity, if any, as per Schedule of Requirement.
- d) The additional 100% Performance Bank Guarantee shall be returned only after satisfactory performance of all the equipment supplied in first lot for one year from the date of commissioning.
- e) The original 10% PBG for the first lot shall be returned to the supplier after recovery of penalty for non-achievement of guaranteed availability in respect of all the equipment of the 1st lot.

Note:

In case of unsuccessful performance of the first lot of equipment supplied by the firm who qualify as per above, the following shall be applicable:

- i) The 100% Additional Performance Bank Guarantee for the first lot of equipment shall be encashed by Subsidiary Company. Consequent upon the encashment of the 100% Bank Guarantee due to non-achievement of stipulated minimum availability percentage/performance as per performance criteria of the contract, the Supplier shall take back the equipment at no cost to the Purchaser and the contract for the balance quantity shall be cancelled.
- ii) The original 10% performance bank guarantee for the 1st lot shall be returned to the supplier after recovery of penalty for non-achievement of guaranteed availability in respect of first lot of equipment.
- iii) The performance of any individual equipment under this clause shall not be considered for provenness in future tenders of Subsidiary Company & subsidiaries for any capacity of this type of equipment.

4. Document Establishing Bidder's Eligibility and Qualifications

A. If Bid is submitted by Indigenous Manufacturer ('Class-1 Local Supplier'/ 'Class-II Local Supplier'):

- **Commercial Documents**

- a) The bidder is required to furnish the details as given in [Annexure-1] as part of its offer. If no information is applicable against any serial number, please mention "Not Applicable".
- a) In case of bidders seeking exemption from submission of EMD, the scanned copy of Documentary evidence for exemption will have to be uploaded by the bidder
- b) Copy of the last (latest) purchase order for the tendered / similar item(s) received from any Organization / Ministry / Department of the Govt. of India Coal India Ltd. and/or its Subsidiaries or other PSU or any other private organization (The bidder may opt to mask the priced portion and shall submit an undertaking that priced copy will be submitted on being L1 after opening of Price Bid / Reverse Auction). This order copy is required to assess reasonableness of offered prices and may be different from the order copies submitted towards provenness criteria.
- c) Certificate with regard to Class I Local Supplier / Class II Local Supplier. **(Please refer clause 2.4.3).**
- d) Certificate and Undertaking as per clause 2.5 (d) if applicable.**(Annexure-5)**
- e) Certificate with regard to Startups **(Please refer clause 2.6)**, if applicable.
- f) Certificate(s) with regard to MSEs as per clause if applicable. **(Please refer clause 2.7)**
- g) Evidence of valid registration by Competent Authority, in case of bidder from countries sharing land border with India, if applicable. **(Please refer clause 2.8)**
- h) A write up in respect of its organization along with the documents like Certificate of Incorporation/ Registration etc.
- i) Tender specific Manufacturer's Authorization in favour of its

Indian Agent/Indian subsidiary as per [Annexure-2], signed by the manufacturer who is quoting directly against the Subsidiary Company Tender, indicating the Tender Reference No. and date, if applicable.

- j) GST Registration Certificate & PAN Copy
- k) Average financial turnover of the bidder during last three years, ending 31st march of the previous financial year duly certified by Statuary Auditor of the company or from Practicing Chartered Accountant with UDIN number.

- **Technical Documents**

- g) Documentary evidence to establish the fact that they are equipment manufacturer for the offered capacity and type of equipment. Such documentary evidence can be ISO-9001 Certificate, Manufacturing License/ Certificate / Registration issued by the appropriate authorities of the manufacturer's country, Certificate from Chamber of Commerce and Industry of the manufacturer's country etc.

OR

if any indigenous content is added by the indigenous manufacturer (Class-1 Supplier/Class-II Supplier) in the quoted model of the equipment, the bidder needs to submit:

- i Self-certified Copy of valid Legal Agreement / Collaboration Agreement/ License Agreement / MOU with Principal manufacturer for quoting their equipment against current tender with appropriate value addition in India.
 - ii Tender specific declaration by the Principal Manufacturer (**As per Annexure 3**).
 - iii Both the **Indigenous Manufacturer (Class-I Local Supplier /Class-II local supplier)** and **Principal manufacturer** should confirm to ensure supply of spares, consumables and service support for smooth running of the equipment during its life time.

iv Documentary evidence to establish that the principal manufacturer are equipment manufacturer for the offered capacity and type of equipment. Such documentary evidence can be ISO-9001 Certificate, Manufacturing License/ Certificate / Registration issued by the appropriate authorities of the manufacturer's country, Certificate from Chamber of Commerce and Industry of the manufacturer's country etc.

h) Details of After Sales Service Support facilities in India like Depot/ Warehouse for supply of spare parts, Workshop facilities for servicing and repair of assemblies, sub-assemblies and equipment, trained technical manpower and training facilities for providing training to Subsidiary Company personnel, etc. as per the minimum criteria mentioned in Clause 2.3, for the offered capacity and type of equipment

Details will also include information whether the above facilities are owned by the manufacturer or it's authorized Indian Agent or vice a versa. In case After Sales Service Support Facilities are of its Indian Agent the details of the Indian agent shall have to be submitted.

In case the bidder or its Indian Agent do not have the above facilities in India, an undertaking that in the event of placement of order on them, they will establish the above facilities in India within the completion period of warranty of the first equipment commissioned.

i) Audited Profit & Loss Accounts / Abridged Profit & Loss Accounts for the last three financial years from the date of tender opening. In case the Indian Manufacturing entity has not completed three financial years from its inception, the Profit & Loss accounts, as available, are to be uploaded.

j) Copy of Supply order and Performance Certificate for required period for quoted/similar model towards provenness criteria as per **Clause-3**.

k) Documents as mentioned in Technical Specifications (**Annexure-A, B, C, D, E**) as detailed in technical section.

B. If the bid is submitted by Indian Agent of Indigenous Manufacturer:

Commercial Documents:

- a) Tender specific Manufacturer's Authorization Form as per **[Annexure-2]**, signed by the manufacturer to quote against the Subsidiary Company Tender, indicating the Tender Reference No. and date.
- b) A write up in respect of its organization as well as of its principal along with the documents like Certificate of Incorporation/ Registration etc.
- c) Audited Profit & Loss Accounts / Abridged Profit & Loss Accounts for the last three financial years from the date of tender opening.
- d) Average financial turnover of the bidder during last three years, ending 31st march of the previous financial year duly certified by Statuary Auditor of the company or from Chartered Accountant with UDIN number.

- **Technical Documents**

- e) Documentary evidence to establish that its principal is the equipment manufacturer [as indicated in Eligibility Criteria].
- f) Details of After Sales Service Support facilities in India like Depot/ Warehouse for supply of spare parts, Workshop facilities for servicing and repair of assemblies, sub-assemblies and equipment, trained technical manpower and training facilities for providing training to **Subsidiary Company** personnel, etc. for the offered capacity and type of equipment as per the minimum criteria mentioned in **Clause-2.3**. Details will also include information whether the above facilities are owned by the manufacturer or its authorized Indian Agent.
- g) In case the bidder or its principal do not have the above facilities in India, an undertaking that in the event of placement of order on them, they will establish the above facilities in India within the completion period of warranty of the first equipment commissioned.

(iii) In case Indian Manufacturing entity of a Foreign Manufacturer is quoting, it has to upload the following documents with the offer:

- **Commercial Documents**

- a) A write up in respect of its organization as well as of its principal foreign manufacturer along with the documents like Certificate of Incorporation/ Registration etc.
- b) The location and address of the factory where the equipment is being manufactured/ local value addition is being made
- c) Audited Profit & Loss Accounts / Abridged Profit & Loss Accounts for the last three financial years from the date of tender opening. In case the Indian Manufacturing entity has not completed three financial years from its inception, the Profit & Loss accounts, as available, are to be uploaded.
- d) Tender specific Manufacturer's Declaration in favour of its Indian Agent as per [Annexure-2], signed by the Indian manufacturing entity who is quoting directly against the Subsidiary Company Tender, indicating the Tender Reference No. and date, if applicable.

- **Technical Documents**

- e) Documentary evidence to establish that its principal i.e foreign manufacturer manufactures equipment of the same or similar capacity as the tendered equipment.
- f) Documentary evidence establishing that the Indian manufacturing entity has sufficient facility for manufacturing, supply and After Sales Service Support in India for equipment of same or similar capacity as the tendered equipment.
- g) Details of After Sales Service Support facilities in India like Depot/ Warehouse for supply of spare parts, Workshop facilities for servicing and repair of assemblies, sub-assemblies and equipment, trained technical manpower and training facilities for providing training to CIL's personnel, etc. for the offered capacity and type of equipment as per the minimum criteria mentioned in clause 2.3. Details will also include information whether the above facilities are owned by the Indian Manufacturing entity / Indian Agent / Foreign Manufacturer.
- h) Digitally signed copy of valid legal agreement/collaboration agreement / license agreement/ MOU with foreign principal manufacturer, duly registered in India.
- i) An Undertaking by Indian manufacturing entity as well as by foreign principal manufacturer to ensure supply of spares & consumables and service support for smooth running of the equipment throughout its life.

5. Pre Contract Integrity Pact:

The bidders will have to upload along with their offer, digitally signed Pre-Contract Integrity Pact on the plain paper as per format enclosed as [Annexure-5], failing which their offer may not be considered.

In terms of the Integrity Pact, the Independent External Monitor(s) (IEMs) nominated for this tender are as follows:

Sr No	Name of IEM	Address	Email Id	Mobile no

In case of any grievance, bidders may approach Independent External Monitor(s) (IEMs).

6. Bid Price :

- a. The bidders are required to quote their lowest prices for Equipment, WPC License/Royalty charges and thereafter Comprehensive AMC for a period of 7 (seven) years after warranty period.
- a. Under FOR destination Contract, it is the responsibility of the supplier to deliver the goods at the FOR destination site at its own risks and costs. The supplier must contract at its own cost and risk for carriage of goods and insurance to the FOR destination site. Subsidiary Company has no obligation to the supplier on these accounts.
- b) The bidder has to quote for at least 50% of the total tendered quantity as given in Schedule of Requirement (Refer **Clause-14**), otherwise their offer will not be considered. If the 50% quantity comes out to be a fraction, the bidder should quote for the next whole number.
- c) Single contract will be concluded with bidder for both Equipment and CAMC.
- d) Bids submitted with conditional price quotations shall be rejected.

7. Evaluation and Comparison of the Bids

Item wise evaluation of bids and Comparison of Bids will be made for in the Following manner:-

A. Evaluation of Offer for Equipment in Indian Rupees:

- a) The bidder will fill their prices in Indian Rupees and on FOR Destination basis including installation and commissioning charges and applicable GST.
- b) Net Landed Price of each equipment will be arrived at after adding all the element of prices mentioned above.
- c) **The financial evaluation of bids shall be based on the total cost inclusive of GST.**

B. Evaluation of Operating License fee and Royalty charges

B.1 Subsidiary Company shall initially pay for the WPC license & Royalty charges to the concerned Govt. authorities. However these charges shall be recovered from the ensuing running bills of the respective suppliers at each instance of such payment.

B.2 Bidder shall ensure that in no case WPC license & royalty charges are higher than the amount due to them from Subsidiary Company. Therefore Bidder shall submit an undertaking that in case WPC license and royalty charges are higher than the amount due to them from subsidiary company then same shall be paid to Subsidiary Company subsidiary within 10 days on demand from Subsidiary Company

B.3 In case of the change of mine during the period of WPC license, the licence fee will be borne by subsidiary company for the balance period e.g. If the license validity is Jan to Dec and the change is proposed from Jul then for Jul to Dec, subsidiary company will bear the WPC license cost and for remaining period of WPC i.e. Jan-Jun will be recovered from the sellers bills. Next period WPC will be arranged by the successful bidder and payment done for it will be recovered as explained above in B.1

The bidders are advised to consider the above provision regarding Licensing and royalty charges while submitting their offers.

c. Evaluation of Comprehensive Annual Maintenance Contract Charges (CAMC Charges)

Evaluation will also take into account Net Present Value (NPV) of Net CAMC charges after deducting Input Tax credit for a period of 84 months (28 quarters), to be rendered after warranty period of 12 months from the date of commissioning of the equipment. Bidder shall quote the Annual CAMC charges and applicable GST rate after warranty period of 12 months from the date of commissioning of the equipment. First quarter of CAMC period will start after warranty period of 12 months from the date of commissioning of the equipment. The NPV shall be calculated on annual basis. The discounting factors to work out NPV of CAMC Charges for each year will be indicated in the CAMC sheet of BOQ template.

d. Evaluation of Composite Offer of Equipment, WPC Charges for 8 years and CAMC Charges for a period of 7 years(A+B+C):

Item wise evaluation will be made on the composite price of supply of Equipment on FOR destination basis with applicable GST, WPC charges and Royalty Charges for 8(eight) years and Net Present Value (NPV) of year wise CAMC Charges for a period of 7(seven) years after taking Input tax credit as mentioned above which will be the itemwise bid price of the bidder.

9 Taxes and Duties

The domestic supplier shall be entirely responsible for all taxes, duties, license fees incurred until the execution of the contract, other than those which are to be paid by purchaser as specified in as per relevant clause of this document.

10 Cost of Bidding

The bidder shall bear all costs associated with the preparation and online submission of bid, and Subsidiary Company hereinafter referred to as “the Purchaser”, will in no case be responsible or liable for those costs, regardless

of the conduct or outcome of the bidding process.

- 11** The bidder is expected to examine all instructions, forms, formats, terms and specifications in the Bid Documents. Failure to furnish all information / documents/ certificates required by the Bid Documents will be at the bidder's risk and it may result in rejection of its bid.

12 Pre-Bid Conference

A Pre-Bid conference will be held at the office of the Purchaser/ online on [XX.XX.XXXX] at [11.00 A.M]. The Bidder's authorized representative who can actively participate and contribute in the conference, is invited to attend the pre-bid conference. Number of persons permitted to attend the Pre-Bid conference shall be limited to a maximum of 2 (Two) persons per bidder. Failure to attend pre-bid conference does not restrict the intending bidders from submitting the bid.

The purpose of the meeting will be to clarify issues and clearing doubts, if any, about the specifications of the items/ equipment and other terms and conditions mentioned in the tender document.

The issues raised by the prospective bidders during the pre-bid conference will be examined by Subsidiary Company. The clarifications/ modifications, if any, shall be made and communicated to all the intending bidders. In case there is a modification in the tender document, corrigendum to tender enquiry shall be issued accordingly and also extending the due date and time, if required, for submission/opening of bids suitably.

Bidders are advised to comply with the tender specifications/conditions which have been frozen after pre-bid conference, and hence non-conforming bids will be rejected straightaway.

13 Language of Bid

All correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, shall be written in English language. Supporting documents and printed literature furnished by the Bidder may be written in another language provided they are accompanied by a certified true translation of the relevant passages in English language in which case, for purposes of interpretation of the bid, the translation shall govern. All such translated documents should bear the signature and stamp of the authorized signatory of

the bidder who has signed the LOB, as a token of authentication of the same.

14 Schedule of Requirement:

Sl no	Item Sl no and brief description	Qty (Nos)
1	Mine Slope Stability Radar ; Operating Range: Minimum: 50 m or less Scanning Distance: Suitable for scanning atleast 1.40 Km)	
2	Mine Slope Stability Radar ; Operating Range: Minimum: 50 m or less Scanning Distance: Suitable for scanning atleast 2.50 Km)	
3	Mine Slope Stability Radar ; Operating Range: Minimum: 50 m or less Scanning Distance: Suitable for scanning atleast 3.50 Km)	
4	Mine Slope Stability Radar ; Operating Range: Minimum: 50 m or less Scanning Distance: Suitable for scanning atleast 4.0 Km)	
5	Mine Slope Stability Radar ; Operating Range: Minimum: 50 m or less Scanning Distance: Suitable for scanning atleast 4.50 Km)	

15 Consignee Details:

Sl no	Item Sl no and brief description	Qty (Nos)	Consignee
1	Mine Slope Stability Radar ;		

	Operating Range: Minimum: 50 m or less Scanning Distance: Suitable for scanning atleast 1.40 Km)		
2	Mine Slope Stability Radar ; Operating Range: Minimum: 50 m or less Scanning Distance: Suitable for scanning atleast 2.50 Km		
3	Mine Slope Stability Radar ; Operating Range: Minimum: 50 m or less Scanning Distance: Suitable for scanning atleast 3.50 Km		
4	Mine Slope Stability Radar ; Operating Range: Minimum: 50 m or less Scanning Distance: Suitable for scanning atleast 4.0 Km		
5	Mine Slope Stability Radar ; Operating Range: Minimum: 50 m or less Scanning Distance: Suitable for scanning atleast 4.50 Km		

16 Delivery Terms:

The supply shall be effective after obtaining the required license for the use of the system. **The delivery and installation & commissioning shall be completed within 4 months after communication of receipt of the WPC (The Wireless Planning & Co-ordination) license issued in favour of Subsidiary Company** and entire supply installation and commissioning shall be completed within one year from date of placement of order.

The supplier shall arrange for WPC license in favour of **CIL**, for which necessary assistance will be extended by Subsidiary Company **CIL**, will provide proper

documentation on time, duly signed and sealed as demanded by WPC. The licensing arrangement shall continue for the total period of warranty and comprehensive AMC period. **The delivery of the Mine Slope Stability Monitoring Radar System shall only be accepted after obtaining and receipt of the WPC license in favour of CIL**

The bidder should be in a position to supply in specific delivery period at least 50% of the each item for which the bid has been issued. Offers from bidders who fail to comply with above qualification criteria shall be considered unresponsive.

In case the L-1 tenderer has capacity constraints to supply the material within the above stipulated delivery period, L-1 tenderer shall be booked up to their offered capacity to supply within the specified delivery period. For balance requirement, the L1 price (landed) shall be counter offered to L-2 tenderer after their acceptance, L-2 tenderer shall be booked for their offered capacity. Similar process of counter offering L1 rate to L-3 and L-4 vendor so on and placement of order for their offered quantity subject to their matching L-1 rate will continue till the full requirement is covered for supply within the specified delivery period.

17 GUARANTEE/WARRANTY

Period: One Year from the date of use of the equipment at consignee premises.

In addition to Sl. No.17 of Annexure - A, Annexure – B, Annexure C, Annexure D & Annexure – E (whichever is applicable), “Warranty & Comprehensive AMC” of Technical section, the Supplier shall be responsible for any defects that they develop under the conditions provided for by the contract and under proper use, arising from faulty materials, design or workmanship and shall remedy such defect at his own cost when called upon to do so. If it becomes necessary for the supplier to replace or renew any defective portions of the goods, such replacement or renewal should be made by the supplier without any extra cost to **CIL**

The supplier shall warrant that the item supplied under the contract

- i. is new, unused and of current design and shall not be discontinued or become obsolete for a period of at least 8(eight) years from the date of installation and commissioning or during the complete contractual period whichever is later. A certificate to this extent shall be provided by the **OEM**.
- ii. is in accordance with the contract specifications.

- iii. shall have no defect arising out of design, material and workmanship.

The supplier shall give a warranty of satisfactory performance of the complete equipment in respect of proper design, quality and workmanship & the material for a period of One Year from the date of use of the equipment at consignee premises.

Moreover, the preventive and scheduled maintenance required (as per OEM's recommendation/requirements) for operation of Mine Slopes Stability Monitoring Radar System shall be responsibility of the supplier during both warranty period and comprehensive AMC (01 Year warranty period + 07 Years comprehensive AMC) without charging any cost.

In the event of any defect in material, design and workmanship during the Guarantee/Warranty period is found due to faulty design or poor workmanship, the defective item will be replaced by supplier at site free of cost within 30 days of settlement of warranty claims. The bidder will be required to stock items to take care of warranty failures.

The guarantee/warranty certificate shall be submitted along with the bill. The warranty shall cover for the total equipment so that the necessity of having to approach different manufacturers of various components/assemblies does not arise and all services under warranty clause shall be the responsibility of ultimate supplier of the composite equipment. Supplier will also replace the defective items, if any during the warranty period free of cost. The responsibility to collect the defective/rejected material will lie with the supplier and the cost of such collection will have to be borne by the supplier.

Penalty clause - The Penalty during Guarantee/Warranty period (one year) & Comprehensive Annual Maintenance Contract period (seven years after Guarantee/ warranty period) shall be as under:-

i) Guaranteed Availability Provisions:

The contractor shall guarantee that the Mine Slope Stability Monitoring Radar System supplied pursuant to this contract shall be available for use of Subsidiary Company and shall meet the performance criteria in accordance with the terms and conditions of the guaranteed availability as outlined below:

The guaranteed availability for the entire Mine Slope Stability Monitoring Radar System shall not be less than 95% calculated on monthly average basis and in no case shall fall below 90%.

Availability during the month shall be calculated as follows:

24-TBD

% Daily availability = x 100

TBD= Sum total in hours in a day during which faces/dumps/high walls for which the system was deployed could not be monitored.

$$\% \text{ Monthly availability} = \frac{\text{Sum of daily availability \%age during the month}}{\text{No of days in month}}$$

- ii) If the availability falls below the guaranteed monthly availability (95%), there will be pro-rata deduction in the monthly depreciation value as penalty. A penal charge Penalty amounting to 5% of such penalty will also be imposed and deducted from the monthly depreciation value.

Thus

$$\text{Penalty} = \frac{(95\% \text{ Monthly Availability}) \times \text{Monthly depreciation of the system}}{95}$$

$$\text{Penal Charge} = 0.05 \times \text{Penalty}$$

The monthly deduction from PBG= (Penalty+ penal Charges)

Depreciation will be calculated on the basis of 8 years life of the equipment with 20% residual value.

If the system is not available for use for more than 3 consecutive days an additional penalty amounting to 20% of the monthly depreciation shall be imposed.

In case the monthly availability falls below 95% in a month, deduction equal to the monthly depreciation value as penalty will be charged for that particular month.

Note:

1. Scheduled preventive maintenance time shall not be considered as breakdown.
2. If the alarm signal is not passed to other point or to the control room due to fail of Wi-Fi/Internet/Mobile Network system, it will not be considered as breakdown.
3. If the Mine Slope Stability Monitoring Radar System fails due to Natural Calamity such as earthquake, thunderstorm, heavy tempest etc. or at

environmental parameter

higher than the stipulated in the NIT specifications, the breakdown for the period due to the above will not be considered as breakdown.

4. If the Mine Slope Stability Monitoring Radar System is not operative due to non- deployment by mine management, no deduction of the penalty shall be charged for the period.

18 AFTER SALES SERVICE SUPPORT (Also refer clause 2.3)

The bidder will have after sales service support facilities in India like Depot/Warehouse for supply of spare parts, Workshop facilities for servicing and repair of assemblies, sub- assemblies and equipment, availability of trained technical manpower, etc., training facilities for providing training to Subsidiary Company personnel.

In support of the above, bidder has to submit following document

1. Copy of the past supply orders for the quoted make and model or Similar equipment with CAMC/AMC

OR

A certificate from practicing chartered Accountant that the bidder has after sales support services

OR

Copy of CAMC/AMC contract for quoted make and model or Similar Equipment

In case the bidder does not have the After Sales Service Support facilities in India, it will have to submit an undertaking along with its offer that in the event of placement of order on them, they will establish the above facilities in India within the completion period of warranty of the first equipment commissioned. In such case, the bidder shall have to provide additional PBG for 30% of the contract value, which will be released after establishment of After Sales Service Support facilities in India and against submission of normal PBG for 10% of the contract value.

17 TECHNICAL SUPPORT AND SERVICE

In addition to after sales service, the successful bidder will render technical support and services to ensure fitment, proper usages, Maintenance and satisfactory performance of the items supplied without any cost during both warranty period and comprehensive AMC (01 Year warranty period + 07 Years comprehensive AMC).

18 INSPECTION

No pre-dispatch inspection will be required. The Inspection shall be arranged by the Consignee at destination stores.

19. COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT (CAMC) FOR 07(seven) YEARS AFTER INTIAL GURANTEE/ WARRANTY PERIOD FOR ONEYEAR)

1. Comprehensive Annual Maintenance Contract will be effective from the day after the successful completion of Guarantee/Warrantee period.
2. It will be sole responsibility of the Principal/OEM as well as its Authorized Indian Agent to arrange uninterrupted service which will include supply, fitment, maintenance, repair of the equipment, its parts and accessories, replacement of defective part and accessories with new parts and for which no extra charge will be paid to the party by Subsidiary Company as it has been already been incorporated in Comprehensive Annual Maintenance Contract charges to keep the equipment in operation.
3. The preventive and scheduled maintenance required (as per OEM's recommendation/requirements) for operation of Mine Slopes Stability Monitoring Radar System shall be responsibility of the supplier during both warranty period and comprehensive AMC without charging any cost.
4. The penalty imposition shall be governed as per Guarantee / warranty; Penalty clause.
5. If equipment is not operative for at least 95% of the period, an additional penalty deduction of CAMC charges at the pro-rata basis for the cumulative period for which the equipment has remained in-operative in the whole year.
6. Payment term for Comprehensive Annual Maintenance Contract shall be made by the Mine/Project where the equipment shall be deployed. 100 % payment shall be made within 21 days of the submission of bill on quarterly basis along with performance certificate signed by the Project Officer or his Authorized representative. Any dispute will be referred to the GM(S&R) of Subsidiary Company
7. The bidder shall adhere to all Acts, Rules, Regulations and other statutes as applicable to the Coal Mines in India.

20 Payment Terms:

20.1 For Payment of equipment :

- i) 50% value of the equipment excluding installation and commissioning charges and applicable 100% taxes and duties shall be made within 21 days after receipt and acceptance of equipment along with accessories at the consignee's end, confirmation of receipt of WPC license and certificate from concerned officials of the Project/Mine including Project Officer/SAM, SO (Safety & Conservation) and counter-signed by the Area General Manager and receipt and acceptance of Performance Bank Guarantee.
- ii) 100% installation and commissioning charges shall be released after successful installation and commissioning and final acceptance of the equipment (along with the accessories) upon presentation of certificates from the concerned officials of the Project/Mine including Project Officer/SAM, SO (Safety & Conservation) and counter-signed by the Area General Manager to the effect that the equipment has been installed and commissioned to their entire satisfaction.**(Annexure-9)**
- iii) Thereafter 10% value of the equipment and applicable taxes and duties shall be paid at the end of 2nd year of operation on receipt of payment clearance certificate issued by the Area GM of the respective area on satisfactory performance and training of the personnels.
- iv) Thereafter 10% value of the equipment and applicable taxes and duties shall be paid at the end of 3rd year of operation on receipt of payment clearance certificate issued by the Area GM of the respective area on satisfactory performance.
- v) Thereafter 10% value of the equipment and applicable taxes and duties shall be paid at the end of 4th year of operation on receipt of payment clearance certificate issued by the Area GM of the respective area on satisfactory performance.
- vi) Thereafter 10% value of the equipment and applicable taxes and duties shall be paid at the end of 5th year of operation on receipt of payment clearance certificate issued by the Area GM of the respective area on satisfactory performance.
- vii) Balance 10% value of the equipment and applicable taxes and duties shall be paid at the end of 6th year of operation on receipt of payment clearance certificate issued by the Area GM of the respective area on satisfactory performance.

The payment shall be made through e-payment. All payments (in India Rupees) will be made by the Paying Authority.

20.2 Submission of documents for payment

- a. Four copies of the Supplier's invoice, Pre-Receipted and Stamped showing Contract Number, Goods description, quantity, unit price, total amount and GST No. of UltimateConsignee.
- b. E way bill/Receipted Challan/ Consignment Note of all the consignments.
- c. Manufacturer's Test & Inspection Certificate.
- d. Manufacturer's Warranty /Guarantee Certificate.
- e. Lowest Price Certificate.
- f. Copy of Performance Bank Guarantee.
- g. Copy of WPC license
- h. Any other document(s) required as per contract.

20.3 Payment for Operating WPC License fee including Royalty charges

CIL shall initially pay for the WPC license & Royalty charges to the concerned Govt. authorities. However these charges shall be recovered from the ensuing running bills of the respective suppliers at each instance of such payment.

The bidders are advised to consider the above provision regarding WPC License and Royalty charges while submitting their offers.

In no circumstances quoted WPC licence and royalty charges should be lower than the actual WPC licence and royalty charges to be incurred by Subsidiary Company during the life time of the equipment. If in any circumstances the charges exceeding the quoted charges will not be bear by Subsidiary Company

20.4 Payment for Comprehensive Annual Maintenance Contract (CAMC)

Payment of CAMC charges shall be done on quarterly basis. 100% quarterly payment shall be made within 21 days of submission of bill on quarterly basis along with performance certificate signed by the Project Manager (SAM) or his authorized representative of Subsidiary Company. Penalty and deduction if any shall be as per clause 17.

- 20.5 In order to enable the purchaser to avail Input Tax Credit as per applicable laws, the supplier shall furnish all the necessary documents to the consignee / paying authority as required, failing which the equivalent deduction will be made from

the supplier's bills. In case of successful bidder(s), if at the time of supply, it is found that Input Tax Credit as per Invoice (Credit available to CIL) is less than the "Input Tax Credit Amount" declared in the Price Bid, the differential amount between the two shall be deducted from the Supplier's bills while making payment to them.

21 Paying Authority

For Equipment: The Paying Authority shall be General Manager (Finance) of the Subsidiary Company

For CAMC:

The Paying Authority shall be Area Finance Manager of the Concerned Area.

22. Performance Bank Guarantee

- 22.1 The successful tenderer shall be required to furnish a Performance Guarantee equivalent to 10% of equipment landed value along with maximum annual landed value of CAMC.
- 22.2 The Performance Guarantee shall be deposited through RTGS/NEFT/IMPS/e-BG/other digital modes or in the form of a Bank Guarantee issued by a RBI scheduled bank in India in the format attached as [Annexure- 7] on a non-judicial stamp paper.
- 22.3 The PBG for 10% shall be submitted, sufficiently in advance (say 3-4 weeks) to enable its verification before any payment is released for the equipment.
- 22.4 **The PBG (s) may be submitted equipment wise also.**
- 22.5 In case of procurement of equipment, if the successful tenderer which does not have the After Sales Service Support facilities in India like Depot/ Warehouse for supply of spare parts, Workshop facilities for servicing and repair of assemblies, sub-assemblies and equipment, availability of trained technical manpower etc., training facilities for providing training to Subsidiary Company personnel, wherever required, additional Performance Bank Guarantee for the 30% value of the total landed value of the contract including all taxes, duties and other costs and charges shall have to be submitted. This 30% PBG will be released after establishment of After Sales Service Support facilities in India subject to confirmation of the same by concerned General Manager (Safety & Conservation). However, the supplier shall have to submit PBG for 10% (as per PBG clause 25) to be kept valid for the remaining period of the contract plus 3 months processing period before release of 30% PBG. This 10% PBG will be released after satisfactory performance of all equipment/ items and fulfillment of contractual obligations including warranty obligations.

- 22.6 The PBG issued by Issuing bank on behalf of the bidder in favour of “CIL” shall be in paper form (Stamp Paper) as well as issued under “Structured Financial Messaging System”. The details of beneficiary Bank for issue of BG through SFMS Platform will be provided by the concerned Subsidiary Company. The date of SFMS confirmation to the Subsidiary Company shall be deemed to be the date of receipt of the BG. Original copy of the PBG issued by the issuing Bank shall be sent by the issuing bank to Subsidiary Company.
- 22.7 However, if the original copy of the BG is handed over to the supplier by the Issuing bank, the issuing bank shall send an e-mail from their corporate e-mail id (on the date of handing over) directly to corporate e-mail id of the order placing authority that they have handed over the original copy of the BG to the supplier for handing over to the beneficiary, attaching a scanned copy of the SDBG. In such case, the supplier shall also submit a copy of the SFMS message as sent by the issuing bank branch along with the original Bank Guarantee.
- 22.8 The PBG (s) shall remain valid till 3 months after the completion of warranty and CAMC period.
- 22.9 The details of beneficiary for issue of BG under SFMS platform is furnished below:

- 22.10 The release of the 10% Performance Bank Guarantee(s) after above indicated period, shall be subject to satisfactory performance of the equipment during Guarantee period and CAMC period from the date of commissioning of the equipment and fulfillment of contractual obligations failing which, action for further extension or encashment of PBG, as deemed suitable shall be taken. Release of PBG for each equipment may be done separately on satisfactory performance of the respective equipment as above. Whenever deductions towards unsatisfactory performance of equipment or non-achievement of guaranteed availability in a particular year(s) are made within the tenure of the PBG during the contract period, the amount deducted from the PBG should be replenished within a month in order to ensure that the original value of the PBG remains the same throughout the contract period.
- 22.11 The Performance Bank Guarantee shall be released with the approval of Subsidiary Company HOD(MM) after expiry of validity period and
- i. On receipt of No Claim Certificate from the General Manager (Safety & Conservation).

- ii. On receipt of “No Claim / No Dispute Certificate” from the Supplier as per **Annexure – 8**

23 Fixed Prices:

Prices stated in the contract shall remain firm and fixed throughout the period of the Contract.

24 Lowest Price Certificate:

The bidder shall submit a certificate along with the offer confirming the prices quoted in the tender are the lowest and not higher than as applicable to any Organization / Ministry / Department of the Govt. of India or Coal India Ltd. and/or its Subsidiaries or other PSU or any other private organization for equipment and spares and consumables of same specifications.

25 Price Fall Clause:

If the contract holder reduces its price or sells or even offers to sell the contracted goods or services following conditions of sale similar to those of the contract, at a price lower than the contract price, to any person or organization during the currency of the contract, the contract price will be automatically reduced with effect from that date for all the subsequent supplies under the contract and the contract be amended accordingly.

The provisions of price fall clause will however not apply to the following:

- a. Export/Deemed Export by the supplier;
- b. Sale of goods or services as original equipment prices lower than the price charged for normal replacement;
- c. Sale of goods such as drugs, which have expiry date;
- d. Sale of goods or services at lower price on or after the date of completion of sale/placement of order of goods or services by the authority concerned, under the existing or previous Rate Contracts as also under any previous contracts entered into with the Central or State Government Departments including new undertakings (excluding joint sector companies and or private parties) and bodies.

Note:

- i. The currency of contract will mean the period till completion of supply.
- ii. The bidder will be asked to submit a copy of the last (latest) purchase

order for the tendered / similar item(s) received by them from any Organization / Ministry / Department of the Govt. of India or Coal India Ltd. and/or its Subsidiaries or other PSU or any other private organization, along with the offer. (The bidder may opt to mask the priced portion and shall submit an undertaking that priced copy will be submitted on being L1 after opening of Price Bid / Reverse Auction).

- iii. It shall be responsibility of the supplier to inform the purchaser of offer to supply / supply of the ordered / similar item(s) at a lower rate to any Organization / Ministry / Department of the Govt. of India or Coal India Ltd. and/or its Subsidiaries or other PSU or any other private organization during the currency of the contract.
- iv. The supplier shall submit a certificate along with the bill(s) that it has not offered to supply / supplied the ordered / similar item(s) at a lower rate to any Organization / Ministry / Department of the Govt. of India or Coal India Ltd. and/or its Subsidiaries or other PSU or any other private organization.

26 Changes in Order

The Purchaser may at any time, by a written order given to supplier, make changes within General Scope of the Contract in any or more of the following:

- a. The place of delivery and/or
- b. The place of services to be provided by the supplier

27 Provisions of CIL's Purchase Manual

The provisions of CIL's Purchase Manual and its subsequent amendments (Available on CIL's website, www.coalindia.in) prevailing on the date of opening of tender shall also be applicable, if not specified otherwise in GeM Terms and Conditions / Bid document / Contract.

TECHNICAL SECTION

Annexure A

TECHNICAL SPECIFICATIONS, FOR

MINE SLOPE STABILITY MONITORING RADAR SYSTEM (for ITEM 1)

A. TECHNICAL SPECIFICATIONS

Purpose	<p>The stability of bench and dump slopes is of paramount importance in opencast mining operations, as it directly impacts production efficiency, safety, and long-term sustainability. However, opencast mining frequently encounters challenging geo-mining conditions that increase the risk of strata failure. Such failures can trigger large-scale bench collapses or overburden (OB) dump failures, leading to severe consequences, including loss of lives, significant damage to machinery, and environmental degradation.</p> <p>To address these risks, it is crucial to implement proactive measures for continuous monitoring of bench slopes, dump slopes, and ultimate pit slopes. Early detection of potential failure indicators allows for the timely evacuation of personnel and machinery, thereby protecting lives and reducing operational and financial losses.</p> <p>Slope Stability Radar (SSR) is a state-of-the-art technology that offers real-time monitoring and early warning systems for slope instability. This innovative solution provides adequate advance notice to safely relocate personnel and equipment before the actual failure of slopes occurs, ensuring enhanced safety, operational continuity, and risk mitigation.</p>	
Sl. No.	Parameters	Description
1	Item	<i>Mine Slope Stability Monitoring Radar System along with supporting software and accessories capable for monitoring slope movement in OB dumps and mine benches and giving alerts under all weather conditions.</i>
2	General Features	<ul style="list-style-type: none"> ii) Slope Stability Monitoring Radar System shall be an integrated instrument complete with all accessories Trans-receiver, Antenna, Power Supply, Processing unit, data communication, software for data analysis, and alarm generating system etc. iii) System should be complete in all respect with all accessories (even it is not mentioned herein), but required for successful operation of the system on its own. iv) System should be mobile and able to move by light vehicle. v) System should take minimum possible time to be set up and commissioned for use at new location within 30 minutes. vi) System is required to work in the mines round the clock on 24x7 basis under all weather conditions. vii) The bidders have to quote for all the hardware, Software along with application software, including that needed for a fully functional control room. The company will not be responsible for obtaining any additional software license.

3	Power Supply	System should have its own power supply unit consists of a quality DG set with full battery backup which will be automatically operative instantly and will provide uninterrupted power supply in case of failure of main source power failure. It should also have provision to connect external AC power source of 220V-240V AC 50 Hz single phase prevalent in Indian mines												
4	Scan/Coverage Angle	Horizontal-170 deg. or more Vertical - 60 deg. or more												
5	Measurement Accuracy	±1.0mm or Better												
6	Scan Time	15 minutes or less												
7	Operating Range	Minimum: 50 m or less Scanning Distance: Suitable for scanning every mine of Cluster I as given below: (i.e atleast 1.40 km)												
		<table border="1"> <thead> <tr> <th>Name of Mine</th> <th>Area</th> <th>Scanning Distance (Km)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>atleast 1.40 Km</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name of Mine	Area	Scanning Distance (Km)			atleast 1.40 Km						
Name of Mine	Area	Scanning Distance (Km)												
		atleast 1.40 Km												
8	Geo referencing and Imaging System	System should have digital camera either integrated or independent. System should have facility for georeferencing in mine coordinate system to display the scan data.												
9	Alarm Facility	System should have real time analysis facility to provide multiple level alarms for different degree of dangers and shall have auto system to communicate through audio-visual alert (at least 02 points station) & SMS in mobile sets(at least 12 points).												
10	Enclosure	System should have effective enclosure for protection against dust, rain, wind lightening, etc.												
11	IP standard	IP 65 or better for all enclosures												
12	Weather monitoring sensors	System should have weather monitoring facility for Temperature and Humidity and also weather compensation algorithms.												
13	System's Transport Speed	Up to 50 km/h or more (With or without antenna fitted)												
14	Environmental Conditions (Under which system can work)	i. Temperature -0 ⁰ C to + 55 ⁰ C or more ii. Wind speed -80 Km/h or more iii. Atmospheric Pressure- 600 mbar to 1050 mbar or better iv. Relative Humidity - up to 95% v. Rain -Fully protected against rain												
15	Statutory requirement	System must conform to FCC (Federal communication commission) / ETSI (European Telecommunication standard institution) / Govt. of India certification of the offered product with documentary evidence.												
16	Operating License	Successful bidder shall be fully responsible to obtain operating license and SACFA clearance from WPC/DOT on behalf of Subsidiary Company for the proposed slope stability monitoring radar system, for which necessary assistance would be extended by Subsidiary Company Subsidiary Company will provide proper documentation on time, duly signed and sealed as demanded by WPC. The licensing arrangement shall continue for total												

		period of warranty and CAMC.
17	Warranty & Comprehensive AMC	<ul style="list-style-type: none"> (i) Supplier shall provide complete on-site service support and facility during the operational life of 8(eight) years of the complete System (i.e. 1 year warranty period + 7years comprehensive AMC). CAMC may be further extended after assessment of the system and maintenance requirement (ii) Supplier will ensure the availability of spares during the CAMC period. (ii) Preventive and Scheduled maintenance required as per OEM's recommendations for operation of Mine Slope Stability Monitoring Radar System shall be included in the scope of the CAMC.
18	Training	<p>Six weeks hands on training on operation, installation, data interpretation etc.to be imparted to the project personnel in three phases after successful commissioning and installation of the System</p> <ul style="list-style-type: none"> i) Phase -I: Two weeks training after commissioning of the system ii) Phase-II: Two weeks training after one month from completion of 1st phase training in mutual consultation with concerned authority. iii) Phase-III: Two weeks training after two months of completion of Phase-II training, in mutual consultation with concerned authority.
19	Software Upgrades	Supplier shall provide the technical support as and when required by the project authorities and also upgrade the system software. Slope stability monitoring radar software shall be upgraded free of cost as and when upgraded in the market during 8(eight) years of the post period of successful installation/commissioning of the equipment.

20	Responsibility of Supplier	<ul style="list-style-type: none"> i) Determination of threshold value for warning & safe withdrawal of persons and machinery during the operation for the entire life of equipment (1 year warranty and 7 years CAMC period) shall be joint responsibility of the Supplier and mine management. The role of Mine management and supplier under joint responsibility is given in Annexure D ii) Supplier shall provide one Technical representative who will be stationed at the site of installation for the entire period of operation(1 year warranty and 7 years CAMC) to ensure requirements of operations, maintenance and service, etc. The Mine Management will provide a suitable accommodation on chargeable basis and all other arrangement has to be provided by the supplier. iii) Shifting of the machine within the mine or to another mine, as decided by CIL, shall be the responsibility of the supplier. The transport facility will be provided by Mine Management and all other activities are to be taken up by Supplier including supervision. iv) In case of shifting of the Radar from one mine to other mine of the Company, it shall be the responsibility of the supplier to arrange for new license, if required, and the Company will provide necessary documentation for the same. v) The bidder shall provide the technical brochure and related detailed technical documents of the quoted model along with their offer. vi) Supplier shall establish monitoring stations in the mine premises at two different locations with the following equipment at each station. <ul style="list-style-type: none"> a. Desk Top computer with OS Windows 10 PRO,64 BIT.AMD RYZEN 5 PRO/QUADCORE Processors, / Intel i7 processor 16GB RAM memory, 8years storage capacity (or better specifications). b. Min 32-inch smart TV with Key Board c. Color printer. necessary refilling of printer cartridges may be done time to time by the supplier (minimum 1 cartridge per month). d. UPS system for smooth functioning of whole system. e. Effective and uninterrupted communication system between the MSSR and the monitoring stations. f. Up keeping/updating of the above for eight years.
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TECHNICAL SPECIFICATIONS, FOR
MINE SLOPE STABILITY MONITORING RADAR SYSTEM (for ITEM 2)

A. TECHNICAL SPECIFICATIONS

Purpose		<p>The stability of bench and dump slopes is of paramount importance in opencast mining operations, as it directly impacts production efficiency, safety, and long-term sustainability. However, opencast mining frequently encounters challenging geomining conditions that increase the risk of strata failure. Such failures can trigger large-scale bench collapses or overburden (OB) dump failures, leading to severe consequences, including loss of lives, significant damage to machinery, and environmental degradation.</p> <p>To address these risks, it is crucial to implement proactive measures for continuous monitoring of bench slopes, dump slopes, and ultimate pit slopes. Early detection of potential failure indicators allows for the timely evacuation of personnel and machinery, thereby protecting lives and reducing operational and financial losses.</p> <p>Slope Stability Radar (SSR) is a state-of-the-art technology that offers real-time monitoring and early warning systems for slope instability. This innovative solution provides adequate advance notice to safely relocate personnel and equipment before the actual failure of slopes occurs, ensuring enhanced safety, operational continuity, and risk mitigation.</p>
Sl. No.	Parameters	Description
1	Item	<i>Mine Slope Stability Monitoring Radar System along with supporting software and accessories capable for monitoring slope movement in OB dumps and mine benches and giving alerts under all weather conditions.</i>

2	General Features	<p>i). Slope Stability Monitoring Radar System shall be an integrated instrument complete with all accessories Trans-receiver, Antenna, Power Supply, Processing unit, data communication, software for data analysis, and alarm generating system etc.</p> <p>ii) System should be complete in all respect with all accessories (even it is not mentioned herein), but required for successful operation of the system on its own.</p> <p>iii) System should be mobile and able to move by light vehicle.</p> <p>iv) System should take minimum possible time to be set up and commissioned for use at new location within 30 minutes.</p> <p>v) System is required to work in the mines round the clock on 24x7 basis under all weather conditions.</p> <p>vi) The bidders have to quote for all the hardware, Software along with application software, including that needed for a fully functional control room. The company will not be responsible for obtaining any additional software license.</p>												
3	Power Supply	System should have its own power supply unit consists of a quality DG set with full battery backup which will be automatically operative instantly and will provide uninterrupted power supply in case of failure of main source power failure. It should also have provision to connect external AC power source of 220V-240V AC 50 Hz single phase prevalent in Indian mines												
4	Scan/Coverage Angle	Horizontal-170 deg. or more Vertical - 60 deg. or more												
5	Measurement Accuracy	±1.0mm or Better												
6	Scan Time	15 minutes or less												
7	Operating Range	<p>Minimum: 50 m or less Scanning Distance: Suitable for scanning every mine of Cluster II as given below: (i.e. at least 2.50 km)</p> <table border="1" data-bbox="516 1346 1369 1507"> <thead> <tr> <th data-bbox="516 1346 784 1413">Name of Mine</th> <th data-bbox="784 1346 1125 1413">Area</th> <th data-bbox="1125 1346 1369 1413">Scanning Distance (Km)</th> </tr> </thead> <tbody> <tr> <td data-bbox="516 1413 784 1444"></td> <td data-bbox="784 1413 1125 1444"></td> <td data-bbox="1125 1413 1369 1444"></td> </tr> <tr> <td data-bbox="516 1444 784 1476"></td> <td data-bbox="784 1444 1125 1476"></td> <td data-bbox="1125 1444 1369 1476">Atleast 2.5 km</td> </tr> <tr> <td data-bbox="516 1476 784 1507"></td> <td data-bbox="784 1476 1125 1507"></td> <td data-bbox="1125 1476 1369 1507"></td> </tr> </tbody> </table>	Name of Mine	Area	Scanning Distance (Km)						Atleast 2.5 km			
Name of Mine	Area	Scanning Distance (Km)												
		Atleast 2.5 km												
8	Geo referencing and Imaging System	System should have digital camera either integrated or independent. System should have facility for geo-referencing in mine coordinate system to display the scan data.												
9	Alarm Facility	System should have real time analysis facility to provide multiple level alarms for different degree of dangers and shall have auto system to communicate through audio-visual alert (at least 02 points station) & SMS in mobile sets (at least 12 points).												

10	Enclosure	System should have effective enclosure for protection against dust, rain, wind lightening etc.
11	IP standard	IP 65 or better for all enclosures
12	Weather monitoring sensors	System should have weather monitoring facility for Temperature and Humidity and also weather compensation algorithms.
13	System's Transport Speed	Up to 50 km/h or more (With or without antenna fitted)
14	Environmental Conditions (Under which system can work)	<ul style="list-style-type: none"> i. Temperature -0⁰ C to + 55⁰ C or more ii. Wind speed -80 Km/h or more iii. Atmospheric Pressure- 600 mbar to 1050 mbar or better iv. Relative Humidity - up to 95% v. Rain -Fully protected against rain
15	Statutory requirement	System must conform to FCC (Federal communication commission) / ETSI (European Telecommunication standard institution) / Govt. of India certification of the offered product with documentary evidence.
16	Operating License	Successful bidder shall be fully responsible to obtain operating license and SACFA clearance from WPC/DOT on behalf of Subsidiary Company Company for the proposed slopestability monitoring radar system, for which necessary assistance would be extended by Subsidiary Company Subsidiary Company will provide proper documentation on time, duly signed and sealed as demanded by WPC. The licensing arrangement shall continue for total period of warranty and CAMC.

17	Warranty & Comprehensive AMC	<ul style="list-style-type: none"> (i) Supplier shall provide complete on-site service support and facility during the operational life of 8(eight) years of the complete System (i.e. 1 year warranty period + 7years comprehensive AMC). CAMC may be further extended after assessment of the system and maintenance requirement (ii) Supplier will ensure the availability of spares during the CAMC period. (iii) Preventive and Scheduled maintenance required as per OEM's recommendations for operation of Mine Slope Stability Monitoring Radar System shall be included in the scope of the CAMC.
18	Training	<p>Six weeks hands on training on operation, installation, data interpretation etc.to be imparted to the project personnel in three phases after successful commissioning and installation of the System</p> <ul style="list-style-type: none"> i) Phase -I: Two weeks training after commissioning of the system ii) Phase-II: Two weeks training after one month from completion of 1st phase training in mutual consultation with concerned authority. iii) Phase-III: Two weeks training after two months of completion of Phase-II training, in mutual consultation with concerned authority.
19	Software Upgrades	<p>Supplier shall provide the technical support as and when required by the project authorities and also upgrade the system software. Slope stability monitoring radar software shall be upgraded free of cost as and when upgraded in the market during 8(eight) years of the post period of successful installation/commissioning of the equipment.</p>
20	Responsibility of Supplier	<ul style="list-style-type: none"> i) Determination of threshold value for warning & safe withdrawal of persons and machinery during the operation for the entire life of equipment (1 year warranty and 7 years CAMC period) shall be joint responsibility of the Supplier and mine management. The role of Mine management and supplier under joint responsibility is given in Annexure D ii) Supplier shall provide one Technical representative who will be stationed at the site of installation for the entire period of operation (1 year warranty and 7 years CAMC) to ensure requirements of operations, maintenance and service, etc. The Mine Management will provide a suitable accommodation on chargeable basis and all other arrangement has to be provided by the supplier. iii) Shifting of the machine within the mine or to another mine, as decided by CIL, shall be the responsibility of the supplier. The transport facility will be provided by Mine Management and all other activities are to be taken up by Supplier including supervision. iv) In case of shifting of the Radar from one mine to other mine of the Company, it shall be the responsibility of the supplier to arrange for new license, if required, and the Company will provide necessary documentation for the same. v) The bidder shall provide the technical brochure and related detailed technical documents of the quoted model along with their offer. vi) Supplier shall establish monitoring stations in the mine premises at two different locations with the following equipment at each station. <ul style="list-style-type: none"> a. Desk Top computer with OS Windows 10 PRO,64 BIT.AMD RYZEN 5 PRO/QUADCORE Processors, / Intel i7 processor

		<p>16GB RAM memory, 8years storage capacity (or better specifications).</p> <p>b. Min 32-inch smart TV with Key Board</p> <p>c. Color printer. Necessary refilling of printer cartridges may be done timeto timeby the supplier (minimum 1 cartridge per month).</p> <p>d. UPS system for smooth functioning of whole system.</p> <p>e. Effective and uninterrupted communication system between the MSSRand the monitoring stations.</p> <p>f. Up keeping/updating of the above for eight years.</p>
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TECHNICAL SPECIFICATIONS, FOR
MINE SLOPE STABILITY MONITORING RADAR SYSTEM (for ITEM 3)

A. TECHNICAL SPECIFICATIONS

Purpose	<p>The stability of bench and dump slopes is of paramount importance in opencast mining operations, as it directly impacts production efficiency, safety, and long-term sustainability. However, opencast mining frequently encounters challenging geomining conditions that increase the risk of strata failure. Such failures can trigger large-scale bench collapses or overburden (OB) dump failures, leading to severe consequences, including loss of lives, significant damage to machinery, and environmental degradation.</p> <p>To address these risks, it is crucial to implement proactive measures for continuous monitoring of bench slopes, dump slopes, and ultimate pit slopes. Early detection of potential failure indicators allows for the timely evacuation of personnel and machinery, thereby protecting lives and reducing operational and financial losses.</p> <p>Slope Stability Radar (SSR) is a state-of-the-art technology that offers real-time monitoring and early warning systems for slope instability. This innovative solution provides adequate advance notice to safely relocate personnel and equipment before the actual failure of slopes occurs, ensuring enhanced safety, operational continuity, and risk mitigation.</p>	
Sl. No.	Parameters	Description
1	Item	<i>Mine Slope Stability Monitoring Radar System along with supporting software and accessories capable for monitoring slope movement in OB dumps and mine benches and giving alerts under all weather conditions.</i>
2	General Features	<p>i). Slope Stability Monitoring Radar System shall be an integrated instrument complete with all accessories Trans-receiver, Antenna, Power Supply, Processing unit, data communication, software for data analysis, and alarm generating system etc.</p> <p>viii) System should be complete in all respect with all accessories (even it is not mentioned herein), but required for successful operation of the system on its own.</p> <p>ix) System should be mobile and able to move by light vehicle.</p> <p>x) System should take minimum possible time to be set up and commissioned for use at new location within 30 minutes.</p> <p>xi) System is required to work in the mines round the clock on 24x7 basis under all weather conditions.</p> <p>xii) The bidders have to quote for all the hardware, Software along with application software, including that needed for a fully functional control room. The company will not be responsible for obtaining any additional software license.</p>

3	Power Supply	System should have its own power supply unit consists of a quality DG set with full battery backup which will be automatically operative instantly and will provide uninterrupted power supply in case of failure of main source power failure. It should also have provision to connect external AC power source of 220V-240V AC 50 Hz single phase prevalent in Indian mines												
4	Scan/Coverage Angle	Horizontal-170 deg. or more Vertical - 60 deg. or more												
5	Measurement Accuracy	±1.0mm or Better												
6	Scan Time	15 minutes or less												
7	Operating Range	Minimum: 50 m or less Scanning Distance: Suitable for scanning every mine of Cluster III as given below: (i.e at least 3.50 km)												
		<table border="1"> <thead> <tr> <th>Name of Mine</th> <th>Area</th> <th>Scanning Distance (Km)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>At least 3.50 km</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name of Mine	Area	Scanning Distance (Km)			At least 3.50 km						
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		At least 3.50 km												
8	Geo referencing and Imaging System	System should have digital camera either integrated or independent. System should have facility for georeferencing in mine coordinate system to display the scan data.												
9	Alarm Facility	System should have real time analysis facility to provide multiple level alarms for different degree of dangers and shall have auto system to communicate through audio-visual alert (at least 02 points station) & SMS in mobile sets(at least 12 points).												
10	Enclosure	System should have effective enclosure for protection against dust, rain, wind lightening, etc.												
11	IP standard	IP 65 or better for all enclosures												
12	Weather monitoring sensors	System should have weather monitoring facility for Temperature and Humidity and also weather compensation algorithms.												
13	System's Transport Speed	Up to 50 km/h or more (With or without antenna fitted)												
14	Environmental Conditions (Under which system can work)	vi. Temperature -0 ⁰ C to + 55 ⁰ C or more vii. Wind speed -80 Km/h or more viii. Atmospheric Pressure- 600 mbar to 1050 mbar or better ix. Relative Humidity - up to 95% x. Rain -Fully protected against rain												
15	Statutory requirement	System must conform to FCC (Federal communication commission) / ETSI (European Telecommunication standard institution) / Govt. of India certification of the offered product with documentary evidence.												

16	Operating License	Successful bidder shall be fully responsible to obtain operating license and SACFA clearance from WPC/DOT on behalf of Subsidiary Company for the proposed slope stability monitoring radar system, for which necessary assistance would be extended by Subsidiary Company Subsidiary Company will provide proper documentation on time, duly signed and sealed as demanded by WPC. The licensing arrangement shall continue for total period of warranty and CAMC.
17	Warranty & Comprehensive AMC	<ul style="list-style-type: none"> (iii) Supplier shall provide complete on-site service support and facility during the operational life of 8(eight) years of the complete System (i.e. 1 year warranty period + 7 years comprehensive AMC). CAMC may be further extended after assessment of the system and maintenance requirement (iv) Supplier will ensure the availability of spares during the CAMC period. (ii) Preventive and Scheduled maintenance required as per OEM's recommendations for operation of Mine Slope Stability Monitoring Radar System shall be included in the scope of the CAMC.
18	Training	<p>Six weeks hands on training on operation, installation, data interpretation etc.to be imparted to the project personnel in three phases after successful commissioning and installation of the System</p> <ul style="list-style-type: none"> iv) Phase -I: Two weeks training after commissioning of the system v) Phase-II: Two weeks training after one month from completion of 1st phase training in mutual consultation with concerned authority. vi) Phase-III: Two weeks training after two months of completion of Phase-II training, in mutual consultation with concerned authority.
19	Software Upgrades	Supplier shall provide the technical support as and when required by the project authorities and also upgrade the system software. Slope stability monitoring radar software shall be upgraded free of cost as and when upgraded in the market during 8(eight) years of the post period of successful installation/commissioning of the equipment.

20	Responsibility of Supplier	<ul style="list-style-type: none"> vii) Determination of threshold value for warning & safe withdrawal of persons and machinery during the operation for the entire life of equipment (1 year warranty and 7 years CAMC period) shall be joint responsibility of the Supplier and mine management. The role of Mine management and supplier under joint responsibility is given in Annexure D viii) Supplier shall provide one Technical representative who will be stationed at the site of installation for the entire period of operation(1 year warranty and 7 years CAMC) to ensure requirements of operations, maintenance and service, etc. The Mine Management will provide a suitable accommodation on chargeable basis and all other arrangement has to be provided by the supplier. ix) Shifting of the machine within the mine or to another mine, as decided by CIL, shall be the responsibility of the supplier. The transport facility will be provided by Mine Management and all other activities are to be taken up by Supplier including supervision. x) In case of shifting of the Radar from one mine to other mine of the Company, it shall be the responsibility of the supplier to arrange for new license, if required, and the Company will provide necessary documentation for the same. xi) The bidder shall provide the technical brochure and related detailed technical documents of the quoted model along with their offer. xii) Supplier shall establish monitoring stations in the mine premises at two different locations with the following equipment at each station. <ul style="list-style-type: none"> a. Desk Top computer with OS Windows 10 PRO, 64 BIT.AMD RYZEN 5 PRO/QUADCORE Processors, / Intel i7 processor 16GB RAM memory, 8years storage capacity (or better specifications). b. Min 32-inch smart TV with Key Board c. Color printer. necessary refilling of printer cartridges may be done time to time by the supplier (minimum 1 cartridge per month). d. UPS system for smooth functioning of whole system. e. Effective and uninterrupted communication system between the MSSR and the monitoring stations. f. Up keeping/updating of the above for eight years.
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TECHNICAL SPECIFICATIONS, FOR
MINE SLOPE STABILITY MONITORING RADAR SYSTEM (for ITEM 4)

A. TECHNICAL SPECIFICATIONS

Purpose	<p>The stability of bench and dump slopes is of paramount importance in opencast mining operations, as it directly impacts production efficiency, safety, and long-term sustainability. However, opencast mining frequently encounters challenging geomining conditions that increase the risk of strata failure. Such failures can trigger large-scale bench collapses or overburden (OB) dump failures, leading to severe consequences, including loss of lives, significant damage to machinery, and environmental degradation.</p> <p>To address these risks, it is crucial to implement proactive measures for continuous monitoring of bench slopes, dump slopes, and ultimate pit slopes. Early detection of potential failure indicators allows for the timely evacuation of personnel and machinery, thereby protecting lives and reducing operational and financial losses.</p> <p>Slope Stability Radar (SSR) is a state-of-the-art technology that offers real-time monitoring and early warning systems for slope instability. This innovative solution provides adequate advance notice to safely relocate personnel and equipment before the actual failure of slopes occurs, ensuring enhanced safety, operational continuity, and risk mitigation.</p>	
Sl. No.	Parameters	Description
1	Item	<i>Mine Slope Stability Monitoring Radar System along with supporting software and accessories capable for monitoring slope movement in OB dumps and mine benches and giving alerts under all weather conditions.</i>
2	General Features	<p>i). Slope Stability Monitoring Radar System shall be an integrated instrument complete with all accessories Trans-receiver, Antenna, Power Supply, Processing unit, data communication, software for data analysis, and alarm generating system etc.</p> <p>xiii) System should be complete in all respect with all accessories (even it is not mentioned herein), but required for successful operation of the system on its own.</p> <p>xiv) System should be mobile and able to move by light vehicle.</p> <p>xv) System should take minimum possible time to be set up and commissioned for use at new location within 30 minutes.</p> <p>xvi) System is required to work in the mines round the clock on 24x7 basis under all weather conditions.</p> <p>xvii) The bidders have to quote for all the hardware, Software along with application software, including that needed for a fully functional control room. The company will not be responsible for obtaining any additional software license.</p>

3	Power Supply	System should have its own power supply unit consists of a quality DG set with full battery backup which will be automatically operative instantly and will provide uninterrupted power supply in case of failure of main source power failure. It should also have provision to connect external AC power source of 220V-240V AC 50 Hz single phase prevalent in Indian mines												
4	Scan/Coverage Angle	Horizontal-170 deg. or more Vertical - 60 deg. or more												
5	Measurement Accuracy	±1.0mm or Better												
6	Scan Time	15 minutes or less												
7	Operating Range	Minimum: 50 m or less Scanning Distance: Suitable for scanning every mine of Cluster IV as given below: (i.e at least 4.00 km)												
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8	Geo referencing and Imaging System	System should have digital camera either integrated or independent. System should have facility for georeferencing in mine coordinate system to display the scan data.												
9	Alarm Facility	System should have real time analysis facility to provide multiple level alarms for different degree of dangers and shall have auto system to communicate through audio-visual alert (at least 02 points station) & SMS in mobile sets(at least 12 points).												
10	Enclosure	System should have effective enclosure for protection against dust, rain, wind lightening, etc.												
11	IP standard	IP 65 or better for all enclosures												
12	Weather monitoring sensors	System should have weather monitoring facility for Temperature and Humidity and also weather compensation algorithms.												
13	System's Transport Speed	Up to 50 km/h or more (With or without antenna fitted)												
14	Environmental Conditions (Under which system can work)	i. Temperature -0 ⁰ C to + 55 ⁰ C or more ii. Wind speed -80 Km/h or more iii. Atmospheric Pressure- 600 mbar to 1050 mbar or better iv. Relative Humidity - up to 95% v. Rain -Fully protected against rain												
15	Statutory requirement	System must conform to FCC (Federal communication commission) / ETSI (European Telecommunication standard institution) / Govt. of India certification of the offered product with documentary evidence.												

16	Operating License	Successful bidder shall be fully responsible to obtain operating license and SACFA clearance from WPC/DOT on behalf of Subsidiary Company for the proposed slope stability monitoring radar system, for which necessary assistance would be extended by Subsidiary Company Subsidiary Company will provide proper documentation on time, duly signed and sealed as demanded by WPC. The licensing arrangement shall continue for total period of warranty and CAMC.
17	Warranty & Comprehensive AMC	<ul style="list-style-type: none"> (v) Supplier shall provide complete on-site service support and facility during the operational life of 8(eight) years of the complete System (i.e. 1 year warranty period + 7years comprehensive AMC). CAMC may be further extended after assessment of the system and maintenance requirement (vi) Supplier will ensure the availability of spares during the CAMC period. (ii) Preventive and Scheduled maintenance required as per OEM's recommendations for operation of Mine Slope Stability Monitoring Radar System shall be included in the scope of the CAMC.
18	Training	<p>Six weeks hands on training on operation, installation, data interpretation etc.to be imparted to the project personnel in three phases after successful commissioning and installation of the System</p> <ul style="list-style-type: none"> vii) Phase -I: Two weeks training after commissioning of the system viii) Phase-II: Two weeks training after one month from completion of 1st phase training in mutual consultation with concerned authority. ix) Phase-III: Two weeks training after two months of completion of Phase-II training, in mutual consultation with concerned authority.
19	Software Upgrades	Supplier shall provide the technical support as and when required by the project authorities and also upgrade the system software. Slope stability monitoring radar software shall be upgraded free of cost as and when upgraded in the market during 8(eight) years of the post period of successful installation/commissioning of the equipment.

20	Responsibility of Supplier	<p>xiii) Determination of threshold value for warning & safe withdrawal of persons and machinery during the operation for the entire life of equipment (1 year warranty and 7 years CAMC period) shall be joint responsibility of the Supplier and mine management. The role of Mine management and supplier under joint responsibility is given in Annexure D</p> <p>xiv) Supplier shall provide one Technical representative who will be stationed at the site of installation for the entire period of operation(1 year warranty and 7 years CAMC) to ensure requirements of operations, maintenance and service, etc. The Mine Management will provide a suitable accommodation on chargeable basis and all other arrangement has to be provided by the supplier.</p> <p>xv) Shifting of the machine within the mine or to another mine, as decided by CIL, shall be the responsibility of the supplier. The transport facility will be provided by Mine Management and all other activities are to be taken up by Supplier including supervision.</p> <p>xvi) In case of shifting of the Radar from one mine to other mine of the Company, it shall be the responsibility of the supplier to arrange for new license, if required, and the Company will provide necessary documentation for the same.</p> <p>xvii) The bidder shall provide the technical brochure and related detailed technical documents of the quoted model along with their offer.</p> <p>xviii) Supplier shall establish monitoring stations in the mine premises at two different locations with the following equipment at each station.</p> <ol style="list-style-type: none"> a. Desk Top computer with OS Windows 10 PRO,64 BIT.AMD RYZEN 5 PRO/QUADCORE Processors, / Intel i7 processr16GB RAM memory, 8years storage capacity (or better specifications). b. Min 32-inch smart TV with Key Board c. Color printer. necessary refilling of printer cartridges may be done time to time by the supplier (minimum 1 cartridge per month). d. UPS system for smooth functioning of whole system. e. Effective and uninterrupted communication system between the MSSR and the monitoring stations. f. Up keeping/updating of the above for eight years.
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TECHNICAL SPECIFICATIONS, FOR
MINE SLOPE STABILITY MONITORING RADAR SYSTEM (for ITEM 5)

A. TECHNICAL SPECIFICATIONS

Purpose	<p>The stability of bench and dump slopes is of paramount importance in opencast mining operations, as it directly impacts production efficiency, safety, and long-term sustainability. However, opencast mining frequently encounters challenging geo-mining conditions that increase the risk of strata failure. Such failures can trigger large-scale bench collapses or overburden (OB) dump failures, leading to severe consequences, including loss of lives, significant damage to machinery, and environmental degradation.</p> <p>To address these risks, it is crucial to implement proactive measures for continuous monitoring of bench slopes, dump slopes, and ultimate pit slopes. Early detection of potential failure indicators allows for the timely evacuation of personnel and machinery, thereby protecting lives and reducing operational and financial losses.</p> <p>Slope Stability Radar (SSR) is a state-of-the-art technology that offers real-time monitoring and early warning systems for slope instability. This innovative solution provides adequate advance notice to safely relocate personnel and equipment before the actual failure of slopes occurs, ensuring enhanced safety, operational continuity, and risk mitigation.</p>	
Sl. No.	Parameters	Description
1	Item	<p><i>Mine Slope Stability Monitoring Radar System along with supporting software and accessories capable for monitoring slope movement in OB dumps and mine benches and giving alerts under all weather conditions.</i></p>

2	General Features	<p>i). Slope Stability Monitoring Radar System shall be an integrated instrument complete with all accessories Trans-receiver, Antenna, Power Supply, Processing unit, data communication, software for data analysis, and alarm generating system etc.</p> <p>xviii) System should be complete in all respect with all accessories (even it is not mentioned herein), but required for successful operation of the system on its own.</p> <p>xix) System should be mobile and able to move by light vehicle.</p> <p>xx) System should take minimum possible time to be set up and commissioned for use at new location within 30 minutes.</p> <p>xxi) System is required to work in the mines round the clock on 24x7 basis under all weather conditions.</p> <p>xxii) The bidders have to quote for all the hardware, Software along with application software, including that needed for a fully functional control room. The company will not be responsible for obtaining any additional software license.</p>												
3	Power Supply	System should have its own power supply unit consists of a quality DG set with full battery backup which will be automatically operative instantly and will provide uninterrupted power supply in case of failure of main source power failure. It should also have provision to connect external AC power source of 220V-240V AC 50 Hz single phase prevalent in Indian mines												
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6	Scan Time	15 minutes or less												
7	Operating Range	Minimum: 50 m or less Scanning Distance: Suitable for scanning every mine of Cluster V as given below: (i.e at least 4.50 km)												
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12	Weather monitoring sensors	System should have weather monitoring facility for Temperature and Humidity and also weather compensation algorithms.
13	System's Transport Speed	Up to 50 km/h or more (With or without antenna fitted)
14	Environmental Conditions (Under which system can work)	<ul style="list-style-type: none"> b. Temperature -0⁰ C to + 55⁰ C or more c. Wind speed -80 Km/h or more d. Atmospheric Pressure- 600 mbar to 1050 mbar or better e. Relative Humidity - up to 95% f. Rain -Fully protected against rain
15	Statutory requirement	System must conform to FCC (Federal communication commission) / ETSI (European Telecommunication standard institution) / Govt. of India certification of the offered product with documentary evidence.
16	Operating License	Successful bidder shall be fully responsible to obtain operating license and SACFA clearance from WPC/DOT on behalf of Subsidiary Company for the proposed slope stability monitoring radar system, for which necessary assistance would be extended by Subsidiary Company Subsidiary Company will provide proper documentation on time, duly signed and sealed as demanded by WPC. The licensing arrangement shall continue for total period of warranty and CAMC.
17	Warranty & Comprehensive AMC	<ul style="list-style-type: none"> (vii) Supplier shall provide complete on-site service support and facility during the operational life of 8(eight) years of the complete System (i.e. 1 year warranty period + 7years comprehensive AMC). CAMC may be further extended after assessment of the system and maintenance requirement (viii) Supplier will ensure the availability of spares during the CAMC period. (ii) Preventive and Scheduled maintenance required as per OEM's recommendations for operation of Mine Slope Stability Monitoring Radar System shall be included in the scope of the CAMC.

18	Training	<p>Six weeks hands on training on operation, installation, data interpretation etc.to be imparted to the project personnel in three phases after successful commissioning and installation of the System</p> <ul style="list-style-type: none"> x) Phase -I: Two weeks training after commissioning of the system xi) Phase-II: Two weeks training after one month from completion of 1st phase training in mutual consultation with concerned authority. xii) Phase-III: Two weeks training after two months of completion of Phase-II training, in mutual consultation with concerned authority.
19	Software Upgrades	<p>Supplier shall provide the technical support as and when required by the project authorities and also upgrade the system software. Slope stability monitoring radar software shall be upgraded free of cost as and when upgraded in the market during 8(eight) years of the post period of successful installation/commissioning of the equipment.</p>
20	Responsibility of Supplier	<ul style="list-style-type: none"> xix) Determination of threshold value for warning & safe withdrawal of persons and machinery during the operation for the entire life of equipment (1 year warranty and 7 years CAMC period) shall be joint responsibility of the Supplier and mine management. The role of Mine management and supplier under joint responsibility is given in Annexure F xx) Supplier shall provide one Technical representative who will be stationed at the site of installation for the entire period of operation(1 year warranty and 7 years CAMC) to ensure requirements of operations, maintenance and service, etc. The Mine Management will provide a suitable accommodation on chargeable basis and all other arrangement has to be provided by the supplier. xxi) Shifting of the machine within the mine or to another mine, as decided by CIL, shall be the responsibility of the supplier. The transport facility will be provided by Mine Management and all other activities are to be taken up by Supplier including supervision. xxii) In case of shifting of the Radar from one mine to other mine of the Company, it shall be the responsibility of the supplier to arrange for new license, if required, and the Company will provide necessary documentation for the same. xxiii) The bidder shall provide the technical brochure and related detailed technical documents of the quoted model along with their offer. xxiv) Supplier shall establish monitoring stations in the mine premises at two different locations with the following equipment at each station. <ul style="list-style-type: none"> a. Desk Top computer with OS Windows 10 PRO,64 BIT.AMD RYZEN 5 PRO/QUADCORE Processors, / Intel i7 processr16GB RAM memory, 8years storage capacity (or better specifications). b. Min 32-inch smart TV with Key Board c. Color printer. necessary refilling of printer cartridges may be done time to time by the supplier (minimum 1 cartridge per month). d. UPS system for smooth functioning of whole system. e. Effective and uninterrupted communication system between the MSSR and the monitoring stations. f. Up keeping/updating of the above for eight years.

Joint Responsibility for determination of threshold supplier and Mine Management.

	Management Responsibility	Suppliers Responsibility
Legal	<p>CMR 2017 Regulation 106 (2) Before starting a mechanized opencast working, the owner and agent of the mine shall ensure that the mine, including its method of working, ultimate pit slope, dump slope and monitoring of slope stability, has been planned, designed and worked as determined by a scientific study and a copy of the report of such study has been kept available in the office of the mine:</p> <p>Provided that in case of mines where such a study has not been made, it shall be the responsibility of the owner and agent to get the said study made within one year from the date of coming into force of these regulations.</p> <p>(3) The owner, agent and manager of every mechanized opencast mines shall ensure that the recommendations made in the report of scientific study referred to in sub-regulation (2) are Complied with.</p>	<p>CMR Regulation 38. General responsibilities of supplier, manufacturer and designer.- A person who designs, manufactures, imports, provides or transfers machinery, equipment or substances for use in coal mines, shall -</p> <p>(a) ensure that the machinery, equipment or substances do not entail dangers for the safety and health of those using them correctly;</p> <p>(b) make available-</p> <p>(i) information concerning their requirement for the correct installation, maintenance and use of machinery and equipment and the correct storage and use of substances;</p> <p>(ii) information concerning the hazards of machinery and equipment, the dangerous properties of hazardous substances and physical agents or products; and</p> <p>(iii) Information on how to eliminate or control risks arising from the identified hazards associated with the products.</p>
Technical Responsibility	<p>1. To Conduct the Scientific study for determination of threshold Value (at which withdrawal of the men and machine safely from site of danger in sufficient time is required) of different locations of the mine which are required to be monitored over next 8 years.</p> <p>2. To conduct any associated geo-technical study, material sampling and testing required for the different studies.</p> <p>3. To affix the threshold Value (at which withdrawal of the men and machine safely from site of danger in sufficient time is required) of different locations of the mine which are required to be</p>	<p>1. To integrate the threshold value (at which withdrawal of the men and machine safely from site of danger in sufficient time is required) of different locations of the mine in Mine Slope Stability Monitoring Radar System and ensure proper alarming to the Mine Management in time.</p> <p>2. Data generated is the property of Mine Management. Data storage, data analysis and interpretation during the entire operation of the Mine Slope Stability Monitoring Radar System (8 Years) shall be responsibility of supplier. Supplier shall make all data and data analysis available to the Mine Management as and when asked without charging any cost and within 15 days of giving requirement to the supplier.</p>

	monitored over next 8years.	<p>3. Supplier will make two soft copies of data generated on weekly basis and submit one copy to Mine Management and keep second copy with them. Data shall be retrievable at all times.</p> <p>4. Non-disclosure of any data provided by the Mine Management and the data generated and analyzed by /through use of slope stability Monitoring Radar System without written permission of Subsidiary Company The supplier will issue a certificate for the same.</p>
Penalty Clause		<p>In case of failure to give alert through Mine Slope Stability Monitoring Radar System atpre-determined threshold value in time to Mine Management, results in loss of production or loss of life or injury to person or damage to the equipment in the mine, the same will be recovered from supplier to a maximum value of 10% of total value of the supply order in the name of the supplier, in addition to statutory Obligation on part of supplier through SD/PBG deposited by the supplier.</p>

Details of Bidder

SI	Detail sought	To be filled by bidder
1	Offer No. & Date	
2	Name of the Bidder	
3	Registered office address of the Bidder	
4	Phone /fax/email id of registered office	
5	Name & Full Address of Manufacturer (If bidder is Indian Agent/India office/ Indian Subsidiary)	
6	Full Address of Factory of Manufacturer	
7	Phone /fax/email id of factory	
8	Name & designation of person signing Pre-Contract Integrity Pact	
9	Phone /Cell no/email id of person signing Pre-Contract Integrity Pact	
10	Nature of company (PSU/Private/Partnership/ others)	
11	Ownership details of the bidder's business entity (Proprietorship/ Partnership/ Joint Stock Co/Others)	
12	Name and address of the Owners/Board of directors	
13	IT Permanent Account Number (PAN) of Indian Entities	
14	GST No. of Indian Entities	

NOTE:-The bidder is required to furnish the details as above duly signed on their letterhead as part of its offer. If no information is applicable against any serial number, please mention – Not Applicable.

Manufacturer's Authorization Form

M/s. Coal India Limited,
Coal Bhawan Premises No. 4,
Action Area IA, New Town,
Rajarhat, Kolkata-700 156,
India

Dear Sir

Sub: Bid/Tender No..... Datedxx.xx.2025

1. We, [**name of manufacturer**] are established and reputable manufacturers of [name and/or description of goods] having factories at [address(es) of factory(ies)] and as a matter of our corporate policy do not quote directly (except in situations like supplies to OEM /OES/OPM, supplies of spares and consumables bundled with supply of equipment, supplies to customers not covered by dealer network due to geographical/ logistics constraints, as applicable) and hereby authorize our [**Name & Address of Indian Agent/ Indian Subsidiary**] to submit a bid and sign the Contract with you on our behalf against the above Tender.

Subsequently, if at any stage, it is found by Subsidiary Company that we have quoted directly to any organization in India excepting the situations mentioned above, we shall be liable for penalaction as per provision of GeM/ Subsidiary Company Purchase Manual, if the justification provided by us is not considered adequate and satisfactory by Subsidiary Company

2. We hereby accept to extend our full support and commitment for all the terms and conditions including guarantee and warranty as per Additional Terms and Conditions, Technical Specifications for the Goods and Services offered for supply by the above bidder on our behalf against this tender for the entire contract period as well as ensure supply of spares & consumables even beyond contract period as stipulated in the relevant clauses of the tender document.
3. In the event of failure on the part of Indian Agent in fulfilment of contractual obligations or change in Indian agency for any unforeseen reason, we shall take the responsibility to make alternate arrangements to support Subsidiary Company as well as execute the remaining period of the contract ourselves or through another competent Indian Agent/entity fulfilling the eligibilitycriteria stipulated in the tender document for Indian Agent/Indian Office /Indian Subsidiary.
4. We also confirm that we have never been banned or delisted or Put on Holiday by any Government or Quasi-Government Agency or any Public Sector Undertaking in India.

OR

We were banned or delisted or Put on Holiday by the organization named "-----"

.....” for a period ofyear(s) effective fromto
-----for----- (the reasons to be mentioned).

We also confirm that the Indian Agent of an Indian Manufacturer, i.e. M/s
..... (name) ,have never been banned or delisted or Put on Holiday by any
Government or Quasi-Government Agency or any Public Sector Undertaking in India.

OR

5. The Indian Agent of an Indian Manufacturer, i.e. M/s (name) were banned or delisted or Put on Holiday by the organization named “ ----- ” for a period ofyear(s) effective fromto for --
----- (the reasons to be mentioned).

(Pl. strike out if not applicable)

6. We confirm that no agent / middlemen / liaisoning agent or any entity in any name other than the disclosed authorized Indian agent is involved in the procurement of goods and services and subsequently, if at any stage, it is found by Subsidiary Company that this confirmation is false, we shall be liable for penal action as per provisions of the Bid/NIT/Purchase Manual.

Dated this _____ day of _____ 20--

(Signature)

(Name)

(Designation)

(Seal)

Signed for and on behalf of [Name of manufacturers].

Note:

1. This letter of authority should be on the letterhead of the Manufacturer and should be signed by a person competent and having the “Authority” to bind the Manufacturer. If the said document conferring the authority is Article of Association of Company, Partnership Deed of a Registered Firm or any resolution of the company, then the notarized copy of the same should be uploaded. In other cases, the letter of authority should be a Power of Attorney sufficient to bind the bidder.
2. Power of Attorney should be sufficiently stamped as per the laws of India

Principal Manufacturer's Declaration Form

(Please see **Clause**-----)

M/s. Coal India Limited,
Coal Bhawan,
Premises No. 4, Action Area IA,
New Town, Rajarhat,
Kolkata-700 156, India

Dear Sir,

Sub: Supply of _____(Name Make and Model MSSR)
Ref: Tender No. -----For supply of----- (**Item Description**).

We, [name of manufacturer] are established and reputable manufacturers of [name and/or description of goods] having factories at [address (es) of factory (ies)], are original equipment Manufacturer of the [name and/or description of quoted/similar model]. We have entered in to an agreement (Type of Agreement) with M/s----- having Registered office at (Address) for **Local value addition**, in the quoted model (Model Name) which is originally being manufactured by us, in their manufacturing facility at (Address of factory) .(**Copy of Manufacturer credential and proof that they are Original manufacturer of the quoted product.**)

In this regard, we certify the following:

1. That M/s----- (Name of Bidder)-----is having sufficient infrastructure and technical expertise in India in addition to direct support from us to undertake the **local value addition** in the quoted model (Model Name), as per our design and specification, quality assurance and testing of the machine, in their works in India.
2. That the equipment being quoted by M/s___ in this tender no. _____ shall be undertaken for value addition in India. We confirm that the offered model ___ is same, having identical operation, equal capacity and same drive line/ system to our proven foreign model ___ (**whose documents have been submitted to establish provenness**).

3. That the equipment to be supplied against this tender will have Local content of not less than 50% / 20% (**Strike off whichever not applicable**). **Local content certificate from the Statutory Auditor/ Cost Auditor of the bidder has been submitted with the offer.**
4. We have entered into a technical collaboration agreement/ license agreement/ Legal Agreement with M/s (Name of bidder) for addition of Local content in the quoted model. (Technical collaboration agreement/ license agreement/ Legal Agreement .**Copy of the documents to be attached.**
5. We undertake, in the event of failure to execute the contract as per contract terms and conditions on the part of (--name of the Bidder--) in fulfilment of contractual obligations or closure of business of (---name of the Bidder--) for any unforeseen reason, we shall take the responsibility to make alternate arrangements to support Subsidiary Company as well as execute the remaining period of the contract ourselves or through another competent Indian entity fulfilling the eligibility criteria stipulated in the tender document under clause, as applicable.
6. We undertake for the successful performance of the equipment with the indigenization carried out by the ‘**Class-I Local Supplier**’ or ‘**Class-II Local Supplier**’ during lifetime of the equipment.
7. We confirm to ensure the supply of spares & consumables and service support for smooth running of the equipment throughout its life for the equipment being offered.

(Signature)

(Name)

(Designation)

Signed for and on behalf of [Name of manufacturers].

Note:

- a. This letter of authority should be on the letter head of the principal Manufacturer and should be signed by a person competent and having the “Authority” to bind the principal Manufacturer. If the said document conferring the authority is Article of Association of Company, Partnership Deed of a Registered Firm or any resolution of the company, then the notarized copy of the same should be uploaded. In other cases, the letter of authority should be a Power of Attorney sufficient to bind the Manufacturer.

- b. Notarized copy of their collaboration agreement / license agreement/MOU with the Original Equipment Manufacturer, which should be valid as on the date of opening of the tender and should also remain valid at least up to supply and commissioning of equipment.

Proforma for Equipment and Quality Control

Reference : CIL/Subsidiary Co. _____

Tender No. _____

Date _____ for supply of _____

1. Name and Address of the Firm

2. (a) Telephone No. office/factory/works

(b) Fax No. / E-mail ID / Mobile No.

3. Location of manufacturing works/factories owned by the firm (documentary evidence of ownership must be produced).

4. Brief description of the factory (i.e. area covered accommodation, Department into which it is divided, laboratory etc.)

5. Details of plant and machinery erected and functioning in each department (monographs and description pamphlets) be supplied if available.

6. Whether the process of manufacture in the factory is carried out with the aid of power or without it.

7. Details and stocks of raw materials held.

8. Production capacity of items quoted for with the existing plants and machinery

(a) Normal

(b) Maximum

9. Details of arrangements for quality control products such as laboratories etc.

10. (a) Details of technical supervisory staff in-charge of production and quality control.

(b) Skilled labour employed.

(c) Unskilled labour employed

(d) Maximum number of workers (skilled and unskilled) employed on any day during 18 months preceding the date of application.

11. Whether stores were tested to any standard specification, if so, copies of original test certificate should be submitted in duplicate.

(Signature of Tenderer)

NB: Details against sl nos. 5 to 11 inclusive need be restricted to the extent they pertain to the items under reference

PRE CONTRACT INTEGRITY PACT

General

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on day of bid submission, between on one hand, Coal India Limited / Subsidiary Cos. (hereinafter called the “BUYER / Principal”, which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part and Undersigned who is authorized to sign the bid (hereinafter called the “BIDDER/Seller /Contractor” which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the BUYER proposes to procure tendered Stores/Equipment/Items/Goods and the BIDDER/Seller is willing to offer/has offered the stores and

WHEREAS the BIDDER is a private company/public company/Government undertaking/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the BUYER is a Central Public Sector Unit.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to :-

Enabling the BUYER to obtain the desired said stores/equipment at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

Section 1 – Commitments of the Principal

(1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

a. No employee of the Principal, personally or through family members, will in connection with the tender for , or the execution of a contract, demand ; take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

b. The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

c. Principal will exclude from the process all known prejudiced persons.

(2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/ PC Act, or if there be a substantive suspicion in this regard, the Principal

will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder(s)/ Contractor(s)

(1) The Bidder(s) / Contractor(s) commit themselves to take all measures necessary to prevent corruption. The Bidder(s) / Contractor(s) commit themselves to observe the following principles during participation in the tender process and during the contract execution.

a. The Bidder(s) / Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

b. The Bidder(s) / Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non- submission of bids or any other actions to restrict competitiveness or to introduce cartelisation in the bidding process.

c. The Bidder(s) / Contractor(s) will not commit any offence under the relevant IPC/ PC Act; further the Bidder(s) / Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

d. The Bidder(s) / Contractor(s) of foreign origin shall disclose the name and address of the Agents/ representatives in India , if any, Similarly the Bidder(s) /Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s) / Contractor(s).Further, as mentioned in the Guidelines all the payments made to the Indian agent/ representative have to be in Indian Rupees only. *The guidelines and terms and conditions for India agents of foreign supplier shall be as per the provisions mentioned in the NIT.*

e. The Bidder(s) / Contractor(s) will, when presenting their bid, disclose any and all payments made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

f. Bidder(s) / Contractor(s) who have signed the Integrity Pact shall not approach the Courts while representing the matter to IEMs and shall wait for their decision in the matter.

(2) The Bidder(s) / Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 - Disqualification from tender process and exclusion from future contracts

If the Bidder, before contract award, has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or credibility as Bidder into question, the Principal is entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason.

(1) If the Bidder / Contractor / Supplier has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is also entitled to exclude the

Bidder / Contractor / Supplier from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case. In particular the number of transgressions, the position

of the transgressors within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.

(2) A transgression is considered to have occurred if the Principal, after due consideration of available facts and evidences within his / her knowledge concludes that there is a reasonable ground to suspect violation of any commitment listed under Section 2 i.e “ Commitments of Bidder(s) / Contractor(s).

(3) The Bidder accepts and undertakes to respect and uphold the Principal’s absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.

(4) If the Bidder / Contractor / Supplier can prove that he has restored / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely.”

Section 4 - Compensation for Damages

(1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 - Previous transgression

(1) The Bidder declares that no previous transgressions occurred in the last three years with any other Company in any country conforming to the anti-corruption approach or with any Public Sector Enterprise in India that could justify his exclusion from the tender process.

(2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure mentioned in "Guidelines on Banning of business dealings".

Section 6 - Equal treatment of all Bidders / Contractors / Subcontractors

(1) In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor.

(2) The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.

(3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 - Criminal charges against violating Bidder(s) / Contractor(s) / Subcontractor(s)

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

Section 8 - Independent External Monitor

(1) The Principal appoints competent and credible Independent External Monitor for this Pact after approval by Central Vigilance Commission. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

(2) The Monitor is not subject to instructions by the representatives of the parties and performs his/her functions neutrally and independently. The Monitor would have access to all Contract documents, whenever required. It will be obligatory for him / her to treat the information and documents of the Bidders/Contractors as confidential.

He/ she reports to the Chairman, Coal India Limited / CMD, Subsidiary Companies

(3) The Bidder(s) / Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his/ her request and demonstration of a valid interest, unrestricted and unconditional access to their project documentation. The same is applicable to Sub-contractors.

(4) The Monitor is under contractual obligation to treat the information and documents of the Bidder(s) / Contractor(s) / Sub-contractor(s) with confidentiality. The Monitor has also signed declarations on 'Non-Disclosure of Confidential Information ' and of 'Absence of Conflict of Interest'. In case of any conflict of interest arising at a later date, the IEM shall inform Chairman, Coal India Limited / CMD, Subsidiary Companies and recuse himself / herself from that case.

(5) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

(6) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he/ she will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

(7) The Monitor will submit a written report to the Chairman, Coal India Limited / CMD, Subsidiary Companies within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.

(8) If the Monitor has reported to the Chairman, Coal India Limited / CMD, Subsidiary Companies, a substantiated suspicion of an offence under relevant IPC/ PC Act, and the Chairman, Coal India Limited / CMD, Subsidiary Companies has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.

(9) The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

This Pact begins when both parties have legally signed it. It expires after the completion of the contract. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.

If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by Chairman Coal India Limited / CMD, Subsidiary Companies.

Section 10 - Other provisions

- (1) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- (2) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- (3) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- (4) Issues like Warranty / Guarantee etc. shall be outside the purview of IEMs.
- (5) In the event of any contradiction between the Integrity Pact and its Annexure, the Clause in the Integrity Pact will prevail.

Section 11- Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

Section 12- Law and Place of Jurisdiction

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER.

Section 13 - Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

(For & On behalf of Bidder/ Contractor)

This document is digitally signed

Security Deposit Bank Guarantee Format

..... (Name & address of the Purchaser
Company)

**Re : Bank Guarantee in respect of Notification of Award / Purchase Order vide no. dated
..... between (Name of Purchaser Company) and (Name of Supplier Company)**

Messersa Company / Firm having its office at No.
..... (hereinafter called 'the Contractor') has received the
Notification of Award / Purchase Order vide no.dated..... (hereinafter called 'the said Agreement')
with(Name of the Purchaser Company) (hereinafter called 'the Company')
to supply..... stores/ materials amounting to Rs.on the terms and
conditions contained in the said Notification of Award / Purchase Order.

The..... (Name of the Bank) (hereinafter called 'the Bank') having its office
at..... has at the request of the Contractor agreed to give the guarantee as hereinafter
contained.

We.....(Name of the Bank) do hereby unconditionally agree with the Company
that if the Contractor shall in any way fail to observe or perform the terms and conditions of the said
Agreement or shall commit any breach of its obligations thereunder, the Bank shall on demand and
without any objection or demur pay to the Company, the said sum of Rs..... or any portion
thereof without requiring the Company to have recourse to any legal remedy that may be available to it
to compel the Bank to pay the same or calling on the Company to compel such payment by the Contractor.

Any such demand shall be conclusive as regards the liability of the Contractor to the Company and as
regards the amount payable by the Bank under this guarantee. The Bank shall not be entitled to withhold
payment on the ground that the Contractor has disputed its liability to pay or has disputed the quantum
of the amount or that any arbitration proceeding or legal proceeding is pending between the Company
and the Contractor regarding the claim.

We, the Bank, further agree that the guarantee shall come into force from the date hereof and shall remain
in full force and effect till the period that will be taken for the performance of the said Agreement which
is likely to be the day of..... but if the period of Agreement is extended either pursuant to
the provisions in the said Agreement or by mutual agreement between the Contractor and the Company,
the Bank shall renew the period of the guarantee failing which it shall pay to the Company the said sum
of Rs....., or such lesser amount out of the said sum of Rs.....as maybe due to the
Company and as the Company may demand. This guarantee shall remain in force until the dues of the
Company in respect of the said sum of Rs..... are fully satisfied and the Company certifies that the
Agreement has been fully carried out by the contractor and discharges the guarantee.

The Bank further agrees with the Company that the Company shall have the fullest liberty without the
consent of the Bank and without affecting in any way the obligations hereunder to vary any of the terms
and conditions of the said Agreement or to extend the time for performance of the said Agreement from

time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the contractor and to forbear to enforce any of the terms and conditions relating to the said Agreement and the Bank shall not be relieved from its liability by reason of such failure or extension being granted to the contractor or through any forbearance, act or omission on the part of the Company or any indulgence by the Company to the contractor or any other matter or thing whatsoever which under the law relating to sureties would but for this provisions have the effect of relieving or discharging the Guarantor.

The Bank further agrees that in case this guarantee is required for a longer period and it is not extended by the Bank beyond the period specified above, the Bank shall pay to the Company the said sum of Rs..... or such lesser sum as may then be due to the Company and as the Company may require.

Notwithstanding anything herein contained the liability of the Bank under this guarantee is restricted to Rs..... only. The guarantee shall remain in force till the..... day of 20... and unless the guarantee is renewed or a claim is preferred against the Bank within the validity period and/or the claim period from the said date, all rights of the Company under this guarantee shall cease and the Bank shall be released and discharged from all liability hereunder except as provided in the preceding clause.

The Bank has under its constitution power to give this guarantee and..... [(Name of the person(s)] who have signed it on behalf of the Bank has authority to do so.

Dated this.....day of20.....

Place.....

Signature of the authorized person(s)
For and on behalf of the Bank.

Performance Bank Guarantee Format

..... (Name & address of the concerned subsidiary
 Company / Purchaser Company)

Re: Bank Guarantee in respect of Agreement / Contract / Purchase Order vide no. dated between..... (Name of Purchaser Company) and (Name of Supplier Company) {*applicable for subsidiary contracts/Purchase Orders*}

Messersa Company / Firm having its office at No. (hereinafter called 'the Contractor') has entered into the Agreement / Contract / Purchase Order vide no dated (hereinafter called 'the said Agreement') with Coal India Limited, Kolkata on behalf of / Purchaser Company (Name of the concerned subsidiary Company) (hereinafter called 'the Company') to supply stores/ materials amounting to Rs.on the terms and conditions contained in the said Agreement.

The..... (Name of the Bank) (hereinafter called 'the Bank') having its office at..... has at the request of the Contractor agreed to give the guarantee as hereinafter contained.

We.....(Name of the Bank) do hereby unconditionally agree with the Company that if the Contractor shall in any way fail to observe or perform the terms and conditions of the said Agreement or shall commit any breach of its obligations thereunder, the Bank shall on demand and without any objection or demur pay to the Company, the said sum of Rs..... or any portion thereof without requiring the Company to have recourse to any legal remedy that may be available to it to compel the Bank to pay the same or calling on the Company to compel such payment by the Contractor.

Any such demand shall be conclusive as regards the liability of the Contractor to the Company and as regards the amount payable by the Bank under this guarantee. The Bank shall not be entitled to withhold payment on the ground that the Contractor has disputed its liability to pay or has disputed the quantum of the amount or that any arbitration proceeding or legal proceeding is pending between the Company and the Contractor regarding the claim.

We, the Bank, further agree that the guarantee shall come into force from the date hereof and shall remain in full force and effect till the period that will be taken for the performance of the said Agreement which is likely to be the day of..... but if the period of Agreement is extended either pursuant to the provisions in the said Agreement or by mutual agreement between the Contractor and the Company, the Bank shall renew the period of the guarantee failing which it shall pay to the Company the said sum of Rs....., or such lesser amount out of the said sum of Rs.....as maybe due to the Company and as the Company may demand. This guarantee shall remain in force until the dues of the Company in respect of the said sum of Rs..... are fully satisfied and the Company certifies that the Agreement has been fully carried out by the contractor and discharges the guarantee.

The Bank further agrees with the Company that the Company shall have the fullest liberty without the consent of the Bank and without affecting in any way the obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend the time for performance of the said Agreement from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the contractor and to forbear to enforce any of the terms and conditions relating to the

said Agreement and the Bank shall not be relieved from its liability by reason of such failure or extension being granted to the contractor or through any forbearance, act or omission on the part of the Company or any indulgence by the Company to the contractor or any other matter or thing whatsoever which under the law relating to sureties would but for this provisions have the effect of relieving or discharging the Guarantor.

The Bank further agrees that in case this guarantee is required for a longer period and it is not extended by the Bank beyond the period specified above, the Bank shall pay to the Company the said sum of Rs..... or such lesser sum as may then be due to the Company and as the Company may require.

Notwithstanding anything herein contained the liability of the Bank under this guarantee is restricted to Rs.....only. The guarantee shall remain in force till the.....day of20... and unless the guarantee is renewed or a claim is preferred against the Bank within the validity period and/or the claim period from the said date, all rights of the Company under this guarantee shall cease and the Bank shall be released and discharged from all liability hereunder except as provided in the preceding clause.

The Bank has under its constitution power to give this guarantee and..... [(Name of the person(s)] who have signed it on behalf of the Bank has authority to do so.

Dated this.....day of20.....

Place.....

Signature of the authorized person(s)
For and on behalf of the Bank.

Format for 'No Claim Certificate' to be issued by Supplier

(On company letterhead)

To

..... (Name & address of the concerned
subsidiary Company / Purchaser Company)

NO CLAIM CERTIFICATE

Sub: **Contract no. ----- dated -----for the supply of -----**

We have received the sum of Rs. (Rupees _____ only) in full and final settlement of all the payments due to us for the supply of _____ under the above mentioned contract agreement, between us and _____ (CIL or Subsidiary). We hereby unconditionally and without any reservation whatsoever, certify that we have no claim whatsoever, of any description, on any account, against _____ (Procuring Entity i.e. concerned subsidiary / Purchaser Company), against aforesaid contract agreement executed by us. We further declare unequivocally, that we have received all the amounts payable to us, and have no dispute of any description whatsoever, regarding the amounts worked out as payable to us and received by us, and that we shall continue to be bound by the terms and conditions of the contract agreement, as regards performance of the contract.

Yours faithfully,

Signatures of contractor / supplier or
officer authorised to sign the contract documents
on behalf of the contractor / supplier
(Company stamp)

Date: _____

Place: _____

Pro-forma of Commissioning Certificate to be issued by the Purchaser after Successful Commissioning of Equipment (please refer clause 20.1(ii))

Ref. No. :

Date :

M/s

Sub : Certificate of Commissioning of Equipment

1. This is to certify that the equipment as detailed below has been received in good condition along with all the standard and special accessories in accordance with the Contract / specifications. The same has been installed and commissioned as detailed below:.

- (a) Contact No. _____ Date _____
- (b) Description and Model of the Equipment _____
- (c) Details of Commissioning:

Manufacturer's Equipment Sl. No.	Date of Commissioning (date/month/year) (DD/MM/YYYY)
----------------------------------	---

- (d) R/ R Consignment Note/ Challan No. _____
Date _____
- (e) Date of receipt of last consignment of equipment _____
- (f) Name of the Project _____
- (g) Name of the Consignee _____

2. Details of WPC license :

Sl. No.	Description	Validity	Amount
---------	-------------	----------	--------

3. The supplier has fulfilled his contractual obligations for successful commissioning satisfactorily:

Or

The supplier has failed to fulfil his contractual obligations with regard to the following:

- (a)
- (b)
- (c)
- (d)

Signature (s)

Name(s)

Designation(s) with Stamp

Explanatory notes for filling up the commissioning certificate by the Purchaser

The commissioning certificate shall be signed by the concerned officials of the Project including Project Head, SO (Safety & Conservation) and counter-signed the Area General Manager. of the subsidiary company.

In the event of documents / drawings having not been supplied or installation and commissioning of the equipment having been delayed on account of the Supplier, the extent of delay should always be mentioned.

Security Deposit Bank Guarantee Format

..... (Name & address of the Purchaser
Company)

**Re : Bank Guarantee in respect of Notification of Award / Purchase Order vide no. dated
..... between (Name of Purchaser Company) and (Name of Supplier Company)**

Messersa Company / Firm having its office at No.
..... (hereinafter called ‘the Contractor’) has received the Notification
of Award / Purchase Order vide no.dated..... (hereinafter called ‘the said Agreement’) with
.....(Name of the Purchaser Company) (hereinafter called ‘the Company’) to
supply..... stores/ materials amounting to Rs.on the terms and conditions
contained in the said Notification of Award / Purchase Order.

The..... (Name of the Bank) (hereinafter called ‘the Bank’) having its office
at..... has at the request of the Contractor agreed to give the guarantee as hereinafter
contained.

We.....(Name of the Bank) do hereby unconditionally agree with the Company that
if the Contractor shall in any way fail to observe or perform the terms and conditions of the said Agreement
or shall commit any breach of its obligations thereunder, the Bank shall on demand and without any
objection or demur pay to the Company, the said sum of Rs..... or any portion thereof without
requiring the Company to have recourse to any legal remedy that may be available to it to compel the
Bank to pay the same or calling on the Company to compel such payment by the Contractor.

Any such demand shall be conclusive as regards the liability of the Contractor to the Company and as
regards the amount payable by the Bank under this guarantee. The Bank shall not be entitled to withhold
payment on the ground that the Contractor has disputed its liability to pay or has disputed the quantum of
the amount or that any arbitration proceeding or legal proceeding is pending between the Company and
the Contractor regarding the claim.

We, the Bank, further agree that the guarantee shall come into force from the date hereof and shall remain
in full force and effect till the period that will be taken for the performance of the said Agreement which
is likely to be the day of..... but if the period of Agreement is extended either pursuant to the
provisions in the said Agreement or by mutual agreement between the Contractor and the Company, the
Bank shall renew the period of the guarantee failing which it shall pay to the Company the said sum of
Rs....., or such lesser amount out of the said sum of Rs.....as maybe due to the Company
and as the Company may demand. This guarantee shall remain in force until the dues of the Company in
respect of the said sum of Rs..... are fully satisfied and the Company certifies that the Agreement has
been fully carried out by the contractor and discharges the guarantee.

The Bank further agrees with the Company that the Company shall have the fullest liberty without the
consent of the Bank and without affecting in any way the obligations hereunder to vary any of the terms
and conditions of the said Agreement or to extend the time for performance of the said Agreement from
time to time or to postpone for any time or from time to time any of the powers exercisable by the Company
against the contractor and to forbear to enforce any of the terms and conditions relating to the said
Agreement and the Bank shall not be relieved from its liability by reason of such failure or extension being
granted to the contractor or through any forbearance, act or omission on the part of the Company or any

indulgence by the Company to the contractor or any other matter or thing whatsoever which under the law relating to sureties would but for this provisions have the effect of relieving or discharging the Guarantor.

The Bank further agrees that in case this guarantee is required for a longer period and it is not extended by the Bank beyond the period specified above, the Bank shall pay to the Company the said sum of Rs..... or such lesser sum as may then be due to the Company and as the Company may require.

Notwithstanding anything herein contained the liability of the Bank under this guarantee is restricted to Rs..... only. The guarantee shall remain in force till the..... day of 20... and unless the guarantee is renewed or a claim is preferred against the Bank within the validity period and/or the claim period from the said date, all rights of the Company under this guarantee shall cease and the Bank shall be released and discharged from all liability hereunder except as provided in the preceding clause.

The Bank has under its constitution power to give this guarantee and..... [(Name of the person(s)] who have signed it on behalf of the Bank has authority to do so.

Dated this.....day of20.....

Place.....

Signature of the authorized person(s)

For and on behalf of the Bank.

Performance Bank Guarantee Format

..... (Name & address of the concerned subsidiary
 Company / Purchaser Company)

Re: Bank Guarantee in respect of Agreement / Contract vide no. dated between Coal India Ltd. on behalf of (Name of concerned subsidiary Company) and (Name of Supplier Company) {applicable for Subsidiary Company Contracts}

Or

Re: Bank Guarantee in respect of Agreement / Contract / Purchase Order vide no. dated between..... (Name of Purchaser Company) and (Name of Supplier Company) {applicable for subsidiary contracts/Purchase Orders}

Messersa Company / Firm having its office at No. (hereinafter called 'the Contractor') has entered into the Agreement / Contract / Purchase Order vide no dated (hereinafter called 'the said Agreement')with Coal India Limited, Kolkata on behalf of / Purchaser Company (Name of the concerned subsidiary Company) (hereinafter called 'the Company') to supply stores/ materials amounting to Rs.on the terms and conditions contained in the said Agreement.

The..... (Name of the Bank) (hereinafter called 'the Bank') having its office at..... has at the request of the Contractor agreed to give the guarantee as hereinafter contained.

We.....(Name of the Bank) do hereby unconditionally agree with the Company that if the Contractor shall in any way fail to observe or perform the terms and conditions of the said Agreement or shall commit any breach of its obligations thereunder, the Bank shall on demand and without any objection or demur pay to the Company, the said sum of Rs..... or any portion thereof without requiring the Company to have recourse to any legal remedy that may be available to it to compel the Bank to pay the same or calling on the Company to compel such payment by the Contractor.

Any such demand shall be conclusive as regards the liability of the Contractor to the Company and as regards the amount payable by the Bank under this guarantee. The Bank shall not be entitled to withhold payment on the ground that the Contractor has disputed its liability to pay or has disputed the quantum of the amount or that any arbitration proceeding or legal proceeding is pending between the Company and the Contractor regarding the claim.

We, the Bank, further agree that the guarantee shall come into force from the date hereof and shall remain in full force and effect till the period that will be taken for the performance of the said Agreement which is likely to be the day of..... but if the period of Agreement is extended either pursuant to the provisions in the said Agreement or by mutual agreement between the Contractor and the Company, the Bank shall renew the period of the guarantee failing which it shall pay to the Company the said sum of Rs....., or such lesser amount out of the said sum of Rs.....as maybe due to the Company and as the Company may demand. This guarantee shall remain in force until the dues of the Company in respect of the said sum of Rs..... are fully satisfied and the Company certifies that the Agreement has been fully carried out by the contractor and discharges the guarantee.

The Bank further agrees with the Company that the Company shall have the fullest liberty without the consent of the Bank and without affecting in any way the obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend the time for performance of the said Agreement from

time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the contractor and to forbear to enforce any of the terms and conditions relating to the said Agreement and the Bank shall not be relieved from its liability by reason of such failure or extension being granted to the contractor or through any forbearance, act or omission on the part of the Company or any indulgence by the Company to the contractor or any other matter or thing whatsoever which under the law relating to sureties would but for this provisions have the effect of relieving or discharging the Guarantor.

The Bank further agrees that in case this guarantee is required for a longer period and it is not extended by the Bank beyond the period specified above, the Bank shall pay to the Company the said sum of Rs..... or such lesser sum as may then be due to the Company and as the Company may require.

Notwithstanding anything herein contained the liability of the Bank under this guarantee is restricted to Rs.....only. The guarantee shall remain in force till the.....day of20... and unless the guarantee is renewed or a claim is preferred against the Bank within the validity period and/or the claim period from the said date, all rights of the Company under this guarantee shall cease and the Bank shall be released and discharged from all liability hereunder except as provided in the preceding clause.

The Bank has under its constitution power to give this guarantee and..... [(Name of the person(s)] who have signed it on behalf of the Bank has authority to do so.

Dated this.....day of20.....

Place.....

Signature of the authorized person(s)
For and on behalf of the Bank.

Format for Bank Details for Electronic Payment

To
M/s. Coal India Ltd.,
1st Floor, Premises No. 04,
Plot no. AF-III, Action Area 1A,
New Town, Kolkata – 700 156.

Dear Sir,

Sub: Authorization of all our payments through Electronic
Fund Transfer system/RTGS/NEFT/LC.

We hereby authorize Coal India Ltd. to disburse all our payments through Electronic Fund Transfer system/RTGS/NEFT/LC. The details for facilitating the payment are given below:

1	Name of the Beneficiary, address with Telephone No.	
2	Bank name, address with Telephone No.	
3	Branch name & code	
4	Bank account number with style of account (Savings/Current)	
5	IFSC Code No./Swift Code of the Bank	
6	PAN No. of the Beneficiary	
7	E-Mail No. and Mobile No. of the Beneficiary for intimation of release of payment.	

I/We hereby declare that particulars given above are correct and complete and if the transaction is delayed or credit is not effected due to incorrect information, I/we will not hold Coal India Ltd. responsible.

Authorized Signatory
Name:
Official Stamp with date

Bank Certification

It is certified that above mentioned beneficiary holds a Bank Account No. with our branch and the Bank particulars mentioned above are correct.

Name: Authorized Signatory
Official Stamp with date

TECHNICAL SECTION

Annexure A

TECHNICAL SPECIFICATIONS, FOR

MINE SLOPE STABILITY MONITORING RADAR SYSTEM (for ITEM 1)

A. TECHNICAL SPECIFICATIONS

Purpose	<p>The stability of bench and dump slopes is of paramount importance in opencast mining operations, as it directly impacts production efficiency, safety, and long-term sustainability. However, opencast mining frequently encounters challenging geo-mining conditions that increase the risk of strata failure. Such failures can trigger large-scale bench collapses or overburden (OB) dump failures, leading to severe consequences, including loss of lives, significant damage to machinery, and environmental degradation.</p> <p>To address these risks, it is crucial to implement proactive measures for continuous monitoring of bench slopes, dump slopes, and ultimate pit slopes. Early detection of potential failure indicators allows for the timely evacuation of personnel and machinery, thereby protecting lives and reducing operational and financial losses.</p> <p>Slope Stability Radar (SSR) is a state-of-the-art technology that offers real-time monitoring and early warning systems for slope instability. This innovative solution provides adequate advance notice to safely relocate personnel and equipment before the actual failure of slopes occurs, ensuring enhanced safety, operational continuity, and risk mitigation.</p>	
Sl. No.	Parameters	Description
1	Item	<i>Mine Slope Stability Monitoring Radar System along with supporting software and accessories capable for monitoring slope movement in OB dumps and mine benches and giving alerts under all weather conditions.</i>
2	General Features	<p>ii) Slope Stability Monitoring Radar System shall be an integrated instrument complete with all accessories Trans-receiver, Antenna, Power Supply, Processing unit, data communication, software for data analysis, and alarm generating system etc.</p> <p>iii) System should be complete in all respect with all accessories (even it is not mentioned herein), but required for successful operation of the system on its own.</p> <p>iv) System should be mobile and able to move by light vehicle.</p> <p>v) System should take minimum possible time to be set up and commissioned for use at new location within 30 minutes.</p> <p>vi) System is required to work in the mines round the clock on 24x7 basis under all weather conditions.</p> <p>vii) The bidders have to quote for all the hardware, Software along with application software, including that needed for a fully functional control room. The company will not be responsible for obtaining any additional software license.</p>

3	Power Supply	System should have its own power supply unit consists of a quality DG set with full battery backup which will be automatically operative instantly and will provide uninterrupted power supply in case of failure of main source power failure. It should also have provision to connect external AC power source of 220V-240V AC 50 Hz single phase prevalent in Indian mines												
4	Scan/Coverage Angle	Horizontal-170 deg. or more Vertical - 60 deg. or more												
5	Measurement Accuracy	±1.0mm or Better												
6	Scan Time	15 minutes or less												
7	Operating Range	Minimum: 50 m or less Scanning Distance: Suitable for scanning every mine of Cluster I as given below: (i.e atleast 1.40 km)												
		<table border="1"> <thead> <tr> <th>Name of Mine</th> <th>Area</th> <th>Scanning Distance (Km)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>atleast 1.40 Km</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name of Mine	Area	Scanning Distance (Km)			atleast 1.40 Km						
Name of Mine	Area	Scanning Distance (Km)												
		atleast 1.40 Km												
8	Geo referencing and Imaging System	System should have digital camera either integrated or independent. System should have facility for georeferencing in mine coordinate system to display the scan data.												
9	Alarm Facility	System should have real time analysis facility to provide multiple level alarms for different degree of dangers and shall have auto system to communicate through audio-visual alert (at least 02 points station) & SMS in mobile sets(at least 12 points).												
10	Enclosure	System should have effective enclosure for protection against dust, rain, wind lightning, etc.												
11	IP standard	IP 65 or better for all enclosures												
12	Weather monitoring sensors	System should have weather monitoring facility for Temperature and Humidity and also weather compensation algorithms.												
13	System's Transport Speed	Up to 50 km/h or more (With or without antenna fitted)												
14	Environmental Conditions (Under which system can work)	i. Temperature -0 ⁰ C to + 55 ⁰ C or more ii. Wind speed -80 Km/h or more iii. Atmospheric Pressure- 600 mbar to 1050 mbar or better iv. Relative Humidity - up to 95% v. Rain -Fully protected against rain												
15	Statutory requirement	System must conform to FCC (Federal communication commission) / ETSI (European Telecommunication standard institution) / Govt. of India certification of the offered product with documentary evidence.												
16	Operating License	Successful bidder shall be fully responsible to obtain operating license and SACFA clearance from WPC/DOT on behalf of Subsidiary Company for the proposed slope stability monitoring radar system, for which necessary assistance would be extended by Subsidiary Company Subsidiary Company will provide proper documentation on time, duly signed and sealed as demanded by WPC. The licensing arrangement shall continue for total												

		period of warranty and CAMC.
17	Warranty & Comprehensive AMC	<ul style="list-style-type: none"> (i) Supplier shall provide complete on-site service support and facility during the operational life of 8(eight) years of the complete System (i.e. 1 year warranty period + 7years comprehensive AMC). CAMC may be further extended after assessment of the system and maintenance requirement (ii) Supplier will ensure the availability of spares during the CAMC period. (ii) Preventive and Scheduled maintenance required as per OEM's recommendations for operation of Mine Slope Stability Monitoring Radar System shall be included in the scope of the CAMC.
18	Training	<p>Six weeks hands on training on operation, installation, data interpretation etc.to be imparted to the project personnel in three phases after successful commissioning and installation of the System</p> <ul style="list-style-type: none"> i) Phase -I: Two weeks training after commissioning of the system ii) Phase-II: Two weeks training after one month from completion of 1st phase training in mutual consultation with concerned authority. iii) Phase-III: Two weeks training after two months of completion of Phase-II training, in mutual consultation with concerned authority.
19	Software Upgrades	Supplier shall provide the technical support as and when required by the project authorities and also upgrade the system software. Slope stability monitoring radar software shall be upgraded free of cost as and when upgraded in the market during 8(eight) years of the post period of successful installation/commissioning of the equipment.

20	Responsibility of Supplier	<ul style="list-style-type: none"> i) Determination of threshold value for warning & safe withdrawal of persons and machinery during the operation for the entire life of equipment (1 year warranty and 7 years CAMC period) shall be joint responsibility of the Supplier and mine management. The role of Mine management and supplier under joint responsibility is given in Annexure D ii) Supplier shall provide one Technical representative who will be stationed at the site of installation for the entire period of operation(1 year warranty and 7 years CAMC) to ensure requirements of operations, maintenance and service, etc. The Mine Management will provide a suitable accommodation on chargeable basis and all other arrangement has to be provided by the supplier. iii) Shifting of the machine within the mine or to another mine, as decided by CIL, shall be the responsibility of the supplier. The transport facility will be provided by Mine Management and all other activities are to be taken up by Supplier including supervision. iv) In case of shifting of the Radar from one mine to other mine of the Company, it shall be the responsibility of the supplier to arrange for new license, if required, and the Company will provide necessary documentation for the same. v) The bidder shall provide the technical brochure and related detailed technical documents of the quoted model along with their offer. vi) Supplier shall establish monitoring stations in the mine premises at two different locations with the following equipment at each station. <ul style="list-style-type: none"> a. Desk Top computer with OS Windows 10 PRO,64 BIT.AMD RYZEN 5 PRO/QUADCORE Processors, / Intel i7 processor 16GB RAM memory, 8years storage capacity (or better specifications). b. Min 32-inch smart TV with Key Board c. Color printer. necessary refilling of printer cartridges may be done time to time by the supplier (minimum 1 cartridge per month). d. UPS system for smooth functioning of whole system. e. Effective and uninterrupted communication system between the MSSR and the monitoring stations. f. Up keeping/updating of the above for eight years.
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TECHNICAL SPECIFICATIONS, FOR
MINE SLOPE STABILITY MONITORING RADAR SYSTEM (for ITEM 2)

A. TECHNICAL SPECIFICATIONS

Purpose		<p>The stability of bench and dump slopes is of paramount importance in opencast mining operations, as it directly impacts production efficiency, safety, and long-term sustainability. However, opencast mining frequently encounters challenging geomining conditions that increase the risk of strata failure. Such failures can trigger large-scale bench collapses or overburden (OB) dump failures, leading to severe consequences, including loss of lives, significant damage to machinery, and environmental degradation.</p> <p>To address these risks, it is crucial to implement proactive measures for continuous monitoring of bench slopes, dump slopes, and ultimate pit slopes. Early detection of potential failure indicators allows for the timely evacuation of personnel and machinery, thereby protecting lives and reducing operational and financial losses.</p> <p>Slope Stability Radar (SSR) is a state-of-the-art technology that offers real-time monitoring and early warning systems for slope instability. This innovative solution provides adequate advance notice to safely relocate personnel and equipment before the actual failure of slopes occurs, ensuring enhanced safety, operational continuity, and risk mitigation.</p>
Sl. No.	Parameters	Description
1	Item	<i>Mine Slope Stability Monitoring Radar System along with supporting software and accessories capable for monitoring slope movement in OB dumps and mine benches and giving alerts under all weather conditions.</i>

2	General Features	<p>i). Slope Stability Monitoring Radar System shall be an integrated instrument complete with all accessories Trans-receiver, Antenna, Power Supply, Processing unit, data communication, software for data analysis, and alarm generating system etc.</p> <p>ii) System should be complete in all respect with all accessories (even it is not mentioned herein), but required for successful operation of the system on its own.</p> <p>iii) System should be mobile and able to move by light vehicle.</p> <p>iv) System should take minimum possible time to be set up and commissioned for use at new location within 30 minutes.</p> <p>v) System is required to work in the mines round the clock on 24x7 basis under all weather conditions.</p> <p>vi) The bidders have to quote for all the hardware, Software along with application software, including that needed for a fully functional control room. The company will not be responsible for obtaining any additional software license.</p>												
3	Power Supply	System should have its own power supply unit consists of a quality DG set with full battery backup which will be automatically operative instantly and will provide uninterrupted power supply in case of failure of main source power failure. It should also have provision to connect external AC power source of 220V-240V AC 50 Hz single phase prevalent in Indian mines												
4	Scan/Coverage Angle	Horizontal-170 deg. or more Vertical - 60 deg. or more												
5	Measurement Accuracy	±1.0mm or Better												
6	Scan Time	15 minutes or less												
7	Operating Range	<p>Minimum: 50 m or less Scanning Distance: Suitable for scanning every mine of Cluster II as given below: (i.e. at least 2.50 km)</p> <table border="1" data-bbox="516 1339 1367 1503"> <thead> <tr> <th data-bbox="516 1339 782 1411">Name of Mine</th> <th data-bbox="782 1339 1123 1411">Area</th> <th data-bbox="1123 1339 1367 1411">Scanning Distance (Km)</th> </tr> </thead> <tbody> <tr> <td data-bbox="516 1411 782 1444"></td> <td data-bbox="782 1411 1123 1444"></td> <td data-bbox="1123 1411 1367 1444"></td> </tr> <tr> <td data-bbox="516 1444 782 1478"></td> <td data-bbox="782 1444 1123 1478"></td> <td data-bbox="1123 1444 1367 1478">Atleast 2.5 km</td> </tr> <tr> <td data-bbox="516 1478 782 1503"></td> <td data-bbox="782 1478 1123 1503"></td> <td data-bbox="1123 1478 1367 1503"></td> </tr> </tbody> </table>	Name of Mine	Area	Scanning Distance (Km)						Atleast 2.5 km			
Name of Mine	Area	Scanning Distance (Km)												
		Atleast 2.5 km												
8	Geo referencing and Imaging System	System should have digital camera either integrated or independent. System should have facility for geo-referencing in mine coordinate system to display the scan data.												
9	Alarm Facility	System should have real time analysis facility to provide multiple level alarms for different degree of dangers and shall have auto system to communicate through audio-visual alert (at least 02 points station) & SMS in mobile sets (at least 12 points).												

10	Enclosure	System should have effective enclosure for protection against dust, rain, wind lightening etc.
11	IP standard	IP 65 or better for all enclosures
12	Weather monitoring sensors	System should have weather monitoring facility for Temperature and Humidity and also weather compensation algorithms.
13	System's Transport Speed	Up to 50 km/h or more (With or without antenna fitted)
14	Environmental Conditions (Under which system can work)	<ul style="list-style-type: none"> i. Temperature -0⁰ C to + 55⁰ C or more ii. Wind speed -80 Km/h or more iii. Atmospheric Pressure- 600 mbar to 1050 mbar or better iv. Relative Humidity - up to 95% v. Rain -Fully protected against rain
15	Statutory requirement	System must conform to FCC (Federal communication commission) / ETSI (European Telecommunication standard institution) / Govt. of India certification of the offered product with documentary evidence.
16	Operating License	Successful bidder shall be fully responsible to obtain operating license and SACFA clearance from WPC/DOT on behalf of Subsidiary Company Company for the proposed slopestability monitoring radar system, for which necessary assistance would be extended by Subsidiary Company Subsidiary Company will provide proper documentation on time, duly signed and sealed as demanded by WPC. The licensing arrangement shall continue for total period of warranty and CAMC.

17	Warranty & Comprehensive AMC	<ul style="list-style-type: none"> (i) Supplier shall provide complete on-site service support and facility during the operational life of 8(eight) years of the complete System (i.e. 1 year warranty period + 7years comprehensive AMC). CAMC may be further extended after assessment of the system and maintenance requirement (ii) Supplier will ensure the availability of spares during the CAMC period. (iii) Preventive and Scheduled maintenance required as per OEM's recommendations for operation of Mine Slope Stability Monitoring Radar System shall be included in the scope of the CAMC.
18	Training	<p>Six weeks hands on training on operation, installation, data interpretation etc.to be imparted to the project personnel in three phases after successful commissioning and installation of the System</p> <ul style="list-style-type: none"> i) Phase -I: Two weeks training after commissioning of the system ii) Phase-II: Two weeks training after one month from completion of 1st phase training in mutual consultation with concerned authority. iii) Phase-III: Two weeks training after two months of completion of Phase-II training, in mutual consultation with concerned authority.
19	Software Upgrades	<p>Supplier shall provide the technical support as and when required by the project authorities and also upgrade the system software. Slope stability monitoring radar software shall be upgraded free of cost as and when upgraded in the market during 8(eight) years of the post period of successful installation/commissioning of the equipment.</p>
20	Responsibility of Supplier	<ul style="list-style-type: none"> i) Determination of threshold value for warning & safe withdrawal of persons and machinery during the operation for the entire life of equipment (1 year warranty and 7 years CAMC period) shall be joint responsibility of the Supplier and mine management. The role of Mine management and supplier under joint responsibility is given in Annexure D ii) Supplier shall provide one Technical representative who will be stationed at the site of installation for the entire period of operation (1 year warranty and 7 years CAMC) to ensure requirements of operations, maintenance and service, etc. The Mine Management will provide a suitable accommodation on chargeable basis and all other arrangement has to be provided by the supplier. iii) Shifting of the machine within the mine or to another mine, as decided by CIL, shall be the responsibility of the supplier. The transport facility will be provided by Mine Management and all other activities are to be taken up by Supplier including supervision. iv) In case of shifting of the Radar from one mine to other mine of the Company, it shall be the responsibility of the supplier to arrange for new license, if required, and the Company will provide necessary documentation for the same. v) The bidder shall provide the technical brochure and related detailed technical documents of the quoted model along with their offer. vi) Supplier shall establish monitoring stations in the mine premises at two different locations with the following equipment at each station. <ul style="list-style-type: none"> a. Desk Top computer with OS Windows 10 PRO,64 BIT.AMD RYZEN 5 PRO/QUADCORE Processors, / Intel i7 processor

		<p>16GB RAM memory, 8years storage capacity (or better specifications).</p> <p>b. Min 32-inch smart TV with Key Board</p> <p>c. Color printer. Necessary refilling of printer cartridges may be done timeto timeby the supplier (minimum 1 cartridge per month).</p> <p>d. UPS system for smooth functioning of whole system.</p> <p>e. Effective and uninterrupted communication system between the MSSRand the monitoring stations.</p> <p>f. Up keeping/updating of the above for eight years.</p>
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TECHNICAL SPECIFICATIONS, FOR
MINE SLOPE STABILITY MONITORING RADAR SYSTEM (for ITEM 3)

A. TECHNICAL SPECIFICATIONS

Purpose	<p>The stability of bench and dump slopes is of paramount importance in opencast mining operations, as it directly impacts production efficiency, safety, and long-term sustainability. However, opencast mining frequently encounters challenging geomining conditions that increase the risk of strata failure. Such failures can trigger large-scale bench collapses or overburden (OB) dump failures, leading to severe consequences, including loss of lives, significant damage to machinery, and environmental degradation.</p> <p>To address these risks, it is crucial to implement proactive measures for continuous monitoring of bench slopes, dump slopes, and ultimate pit slopes. Early detection of potential failure indicators allows for the timely evacuation of personnel and machinery, thereby protecting lives and reducing operational and financial losses.</p> <p>Slope Stability Radar (SSR) is a state-of-the-art technology that offers real-time monitoring and early warning systems for slope instability. This innovative solution provides adequate advance notice to safely relocate personnel and equipment before the actual failure of slopes occurs, ensuring enhanced safety, operational continuity, and risk mitigation.</p>	
Sl. No.	Parameters	Description
1	Item	<p><i>Mine Slope Stability Monitoring Radar System along with supporting software and accessories capable for monitoring slope movement in OB dumps and mine benches and giving alerts under all weather conditions.</i></p>
2	General Features	<p>i). Slope Stability Monitoring Radar System shall be an integrated instrument complete with all accessories Trans-receiver, Antenna, Power Supply, Processing unit, data communication, software for data analysis, and alarm generating system etc.</p> <p>viii) System should be complete in all respect with all accessories (even it is not mentioned herein), but required for successful operation of the system on its own.</p> <p>ix) System should be mobile and able to move by light vehicle.</p> <p>x) System should take minimum possible time to be set up and commissioned for use at new location within 30 minutes.</p> <p>xi) System is required to work in the mines round the clock on 24x7 basis under all weather conditions.</p> <p>xii) The bidders have to quote for all the hardware, Software along with application software, including that needed for a fully functional control room. The company will not be responsible for obtaining any additional software license.</p>

3	Power Supply	System should have its own power supply unit consists of a quality DG set with full battery backup which will be automatically operative instantly and will provide uninterrupted power supply in case of failure of main source power failure. It should also have provision to connect external AC power source of 220V-240V AC 50 Hz single phase prevalent in Indian mines												
4	Scan/Coverage Angle	Horizontal-170 deg. or more Vertical - 60 deg. or more												
5	Measurement Accuracy	±1.0mm or Better												
6	Scan Time	15 minutes or less												
7	Operating Range	Minimum: 50 m or less Scanning Distance: Suitable for scanning every mine of Cluster III as given below: (i.e at least 3.50 km)												
		<table border="1"> <thead> <tr> <th>Name of Mine</th> <th>Area</th> <th>Scanning Distance (Km)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>At least 3.50 km</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name of Mine	Area	Scanning Distance (Km)			At least 3.50 km						
Name of Mine	Area	Scanning Distance (Km)												
		At least 3.50 km												
8	Geo referencing and Imaging System	System should have digital camera either integrated or independent. System should have facility for georeferencing in mine coordinate system to display the scan data.												
9	Alarm Facility	System should have real time analysis facility to provide multiple level alarms for different degree of dangers and shall have auto system to communicate through audio-visual alert (at least 02 points station) & SMS in mobile sets(at least 12 points).												
10	Enclosure	System should have effective enclosure for protection against dust, rain, wind lightening, etc.												
11	IP standard	IP 65 or better for all enclosures												
12	Weather monitoring sensors	System should have weather monitoring facility for Temperature and Humidity and also weather compensation algorithms.												
13	System's Transport Speed	Up to 50 km/h or more (With or without antenna fitted)												
14	Environmental Conditions (Under which system can work)	vi. Temperature -0 ⁰ C to + 55 ⁰ C or more vii. Wind speed -80 Km/h or more viii. Atmospheric Pressure- 600 mbar to 1050 mbar or better ix. Relative Humidity - up to 95% x. Rain -Fully protected against rain												
15	Statutory requirement	System must conform to FCC (Federal communication commission) / ETSI (European Telecommunication standard institution) / Govt. of India certification of the offered product with documentary evidence.												

16	Operating License	Successful bidder shall be fully responsible to obtain operating license and SACFA clearance from WPC/DOT on behalf of Subsidiary Company for the proposed slope stability monitoring radar system, for which necessary assistance would be extended by Subsidiary Company Subsidiary Company will provide proper documentation on time, duly signed and sealed as demanded by WPC. The licensing arrangement shall continue for total period of warranty and CAMC.
17	Warranty & Comprehensive AMC	<ul style="list-style-type: none"> (iii) Supplier shall provide complete on-site service support and facility during the operational life of 8(eight) years of the complete System (i.e. 1 year warranty period + 7 years comprehensive AMC). CAMC may be further extended after assessment of the system and maintenance requirement (iv) Supplier will ensure the availability of spares during the CAMC period. (ii) Preventive and Scheduled maintenance required as per OEM's recommendations for operation of Mine Slope Stability Monitoring Radar System shall be included in the scope of the CAMC.
18	Training	<p>Six weeks hands on training on operation, installation, data interpretation etc.to be imparted to the project personnel in three phases after successful commissioning and installation of the System</p> <ul style="list-style-type: none"> iv) Phase -I: Two weeks training after commissioning of the system v) Phase-II: Two weeks training after one month from completion of 1st phase training in mutual consultation with concerned authority. vi) Phase-III: Two weeks training after two months of completion of Phase-II training, in mutual consultation with concerned authority.
19	Software Upgrades	Supplier shall provide the technical support as and when required by the project authorities and also upgrade the system software. Slope stability monitoring radar software shall be upgraded free of cost as and when upgraded in the market during 8(eight) years of the post period of successful installation/commissioning of the equipment.

20	Responsibility of Supplier	<p>vii) Determination of threshold value for warning & safe withdrawal of persons and machinery during the operation for the entire life of equipment (1 year warranty and 7 years CAMC period) shall be joint responsibility of the Supplier and mine management. The role of Mine management and supplier under joint responsibility is given in Annexure D</p> <p>viii) Supplier shall provide one Technical representative who will be stationed at the site of installation for the entire period of operation(1 year warranty and 7 years CAMC) to ensure requirements of operations, maintenance and service, etc. The Mine Management will provide a suitable accommodation on chargeable basis and all other arrangement has to be provided by the supplier.</p> <p>ix) Shifting of the machine within the mine or to another mine, as decided by CIL, shall be the responsibility of the supplier. The transport facility will be provided by Mine Management and all other activities are to be taken up by Supplier including supervision.</p> <p>x) In case of shifting of the Radar from one mine to other mine of the Company, it shall be the responsibility of the supplier to arrange for new license, if required, and the Company will provide necessary documentation for the same.</p> <p>xi) The bidder shall provide the technical brochure and related detailed technical documents of the quoted model along with their offer.</p> <p>xii) Supplier shall establish monitoring stations in the mine premises at two different locations with the following equipment at each station.</p> <p>a. Desk Top computer with OS Windows 10 PRO, 64 BIT.AMD RYZEN 5 PRO/QUADCORE Processors, / Intel i7 processor 16GB RAM memory, 8years storage capacity (or better specifications).</p> <p>b. Min 32-inch smart TV with Key Board</p> <p>c. Color printer. necessary refilling of printer cartridges may be done time to time by the supplier (minimum 1 cartridge per month).</p> <p>d. UPS system for smooth functioning of whole system.</p> <p>e. Effective and uninterrupted communication system between the MSSR and the monitoring stations.</p> <p>f. Up keeping/updating of the above for eight years.</p>
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TECHNICAL SPECIFICATIONS, FOR
MINE SLOPE STABILITY MONITORING RADAR SYSTEM (for ITEM 4)

A. TECHNICAL SPECIFICATIONS

Purpose	<p>The stability of bench and dump slopes is of paramount importance in opencast mining operations, as it directly impacts production efficiency, safety, and long-term sustainability. However, opencast mining frequently encounters challenging geomining conditions that increase the risk of strata failure. Such failures can trigger large-scale bench collapses or overburden (OB) dump failures, leading to severe consequences, including loss of lives, significant damage to machinery, and environmental degradation.</p> <p>To address these risks, it is crucial to implement proactive measures for continuous monitoring of bench slopes, dump slopes, and ultimate pit slopes. Early detection of potential failure indicators allows for the timely evacuation of personnel and machinery, thereby protecting lives and reducing operational and financial losses.</p> <p>Slope Stability Radar (SSR) is a state-of-the-art technology that offers real-time monitoring and early warning systems for slope instability. This innovative solution provides adequate advance notice to safely relocate personnel and equipment before the actual failure of slopes occurs, ensuring enhanced safety, operational continuity, and risk mitigation.</p>	
Sl. No.	Parameters	Description
1	Item	<i>Mine Slope Stability Monitoring Radar System along with supporting software and accessories capable for monitoring slope movement in OB dumps and mine benches and giving alerts under all weather conditions.</i>
2	General Features	<p>i). Slope Stability Monitoring Radar System shall be an integrated instrument complete with all accessories Trans-receiver, Antenna, Power Supply, Processing unit, data communication, software for data analysis, and alarm generating system etc.</p> <p>xiii) System should be complete in all respect with all accessories (even it is not mentioned herein), but required for successful operation of the system on its own.</p> <p>xiv) System should be mobile and able to move by light vehicle.</p> <p>xv) System should take minimum possible time to be set up and commissioned for use at new location within 30 minutes.</p> <p>xvi) System is required to work in the mines round the clock on 24x7 basis under all weather conditions.</p> <p>xvii) The bidders have to quote for all the hardware, Software along with application software, including that needed for a fully functional control room. The company will not be responsible for obtaining any additional software license.</p>

3	Power Supply	System should have its own power supply unit consists of a quality DG set with full battery backup which will be automatically operative instantly and will provide uninterrupted power supply in case of failure of main source power failure. It should also have provision to connect external AC power source of 220V-240V AC 50 Hz single phase prevalent in Indian mines												
4	Scan/Coverage Angle	Horizontal-170 deg. or more Vertical - 60 deg. or more												
5	Measurement Accuracy	±1.0mm or Better												
6	Scan Time	15 minutes or less												
7	Operating Range	Minimum: 50 m or less Scanning Distance: Suitable for scanning every mine of Cluster IV as given below: (i.e at least 4.00 km)												
		<table border="1"> <thead> <tr> <th>Name of Mine</th> <th>Area</th> <th>Scanning Distance (Km)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>At least 4.00 Km</td> </tr> <tr> <td></td> <td></td> <td>At least 4.00 Km</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name of Mine	Area	Scanning Distance (Km)			At least 4.00 Km			At least 4.00 Km			
Name of Mine	Area	Scanning Distance (Km)												
		At least 4.00 Km												
		At least 4.00 Km												
8	Geo referencing and Imaging System	System should have digital camera either integrated or independent. System should have facility for georeferencing in mine coordinate system to display the scan data.												
9	Alarm Facility	System should have real time analysis facility to provide multiple level alarms for different degree of dangers and shall have auto system to communicate through audio-visual alert (at least 02 points station) & SMS in mobile sets(at least 12 points).												
10	Enclosure	System should have effective enclosure for protection against dust, rain, wind lightning, etc.												
11	IP standard	IP 65 or better for all enclosures												
12	Weather monitoring sensors	System should have weather monitoring facility for Temperature and Humidity and also weather compensation algorithms.												
13	System's Transport Speed	Up to 50 km/h or more (With or without antenna fitted)												
14	Environmental Conditions (Under which system can work)	i. Temperature -0 ⁰ C to + 55 ⁰ C or more ii. Wind speed -80 Km/h or more iii. Atmospheric Pressure- 600 mbar to 1050 mbar or better iv. Relative Humidity - up to 95% v. Rain -Fully protected against rain												
15	Statutory requirement	System must conform to FCC (Federal communication commission) / ETSI (European Telecommunication standard institution) / Govt. of India certification of the offered product with documentary evidence.												

16	Operating License	Successful bidder shall be fully responsible to obtain operating license and SACFA clearance from WPC/DOT on behalf of Subsidiary Company for the proposed slope stability monitoring radar system, for which necessary assistance would be extended by Subsidiary Company Subsidiary Company will provide proper documentation on time, duly signed and sealed as demanded by WPC. The licensing arrangement shall continue for total period of warranty and CAMC.
17	Warranty & Comprehensive AMC	<ul style="list-style-type: none"> (v) Supplier shall provide complete on-site service support and facility during the operational life of 8(eight) years of the complete System (i.e. 1 year warranty period + 7years comprehensive AMC). CAMC may be further extended after assessment of the system and maintenance requirement (vi) Supplier will ensure the availability of spares during the CAMC period. (ii) Preventive and Scheduled maintenance required as per OEM's recommendations for operation of Mine Slope Stability Monitoring Radar System shall be included in the scope of the CAMC.
18	Training	<p>Six weeks hands on training on operation, installation, data interpretation etc.to be imparted to the project personnel in three phases after successful commissioning and installation of the System</p> <ul style="list-style-type: none"> vii) Phase -I: Two weeks training after commissioning of the system viii) Phase-II: Two weeks training after one month from completion of 1st phase training in mutual consultation with concerned authority. ix) Phase-III: Two weeks training after two months of completion of Phase-II training, in mutual consultation with concerned authority.
19	Software Upgrades	Supplier shall provide the technical support as and when required by the project authorities and also upgrade the system software. Slope stability monitoring radar software shall be upgraded free of cost as and when upgraded in the market during 8(eight) years of the post period of successful installation/commissioning of the equipment.

20	Responsibility of Supplier	<p>xiii) Determination of threshold value for warning & safe withdrawal of persons and machinery during the operation for the entire life of equipment (1 year warranty and 7 years CAMC period) shall be joint responsibility of the Supplier and mine management. The role of Mine management and supplier under joint responsibility is given in Annexure D</p> <p>xiv) Supplier shall provide one Technical representative who will be stationed at the site of installation for the entire period of operation(1 year warranty and 7 years CAMC) to ensure requirements of operations, maintenance and service, etc. The Mine Management will provide a suitable accommodation on chargeable basis and all other arrangement has to be provided by the supplier.</p> <p>xv) Shifting of the machine within the mine or to another mine, as decided by CIL, shall be the responsibility of the supplier. The transport facility will be provided by Mine Management and all other activities are to be taken up by Supplier including supervision.</p> <p>xvi) In case of shifting of the Radar from one mine to other mine of the Company, it shall be the responsibility of the supplier to arrange for new license, if required, and the Company will provide necessary documentation for the same.</p> <p>xvii) The bidder shall provide the technical brochure and related detailed technical documents of the quoted model along with their offer.</p> <p>xviii) Supplier shall establish monitoring stations in the mine premises at two different locations with the following equipment at each station.</p> <ol style="list-style-type: none"> a. Desk Top computer with OS Windows 10 PRO,64 BIT.AMD RYZEN 5 PRO/QUADCORE Processors, / Intel i7 processr16GB RAM memory, 8years storage capacity (or better specifications). b. Min 32-inch smart TV with Key Board c. Color printer. necessary refilling of printer cartridges may be done time to time by the supplier (minimum 1 cartridge per month). d. UPS system for smooth functioning of whole system. e. Effective and uninterrupted communication system between the MSSR and the monitoring stations. f. Up keeping/updating of the above for eight years.
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TECHNICAL SPECIFICATIONS, FOR
MINE SLOPE STABILITY MONITORING RADAR SYSTEM (for ITEM 5)

A. TECHNICAL SPECIFICATIONS

Purpose	<p>The stability of bench and dump slopes is of paramount importance in opencast mining operations, as it directly impacts production efficiency, safety, and long-term sustainability. However, opencast mining frequently encounters challenging geo-mining conditions that increase the risk of strata failure. Such failures can trigger large-scale bench collapses or overburden (OB) dump failures, leading to severe consequences, including loss of lives, significant damage to machinery, and environmental degradation.</p> <p>To address these risks, it is crucial to implement proactive measures for continuous monitoring of bench slopes, dump slopes, and ultimate pit slopes. Early detection of potential failure indicators allows for the timely evacuation of personnel and machinery, thereby protecting lives and reducing operational and financial losses.</p> <p>Slope Stability Radar (SSR) is a state-of-the-art technology that offers real-time monitoring and early warning systems for slope instability. This innovative solution provides adequate advance notice to safely relocate personnel and equipment before the actual failure of slopes occurs, ensuring enhanced safety, operational continuity, and risk mitigation.</p>	
Sl. No.	Parameters	Description
1	Item	<i>Mine Slope Stability Monitoring Radar System along with supporting software and accessories capable for monitoring slope movement in OB dumps and mine benches and giving alerts under all weather conditions.</i>

2	General Features	<p>i).Slope Stability Monitoring Radar System shall be an integrated instrument complete with all accessories Trans-receiver, Antenna, Power Supply, Processing unit, data communication, software for data analysis, and alarm generating system etc.</p> <p>xviii) System should be complete in all respect with all accessories (even it is not mentioned herein), but required for successful operation of the system on its own.</p> <p>xix) System should be mobile and able to move by light vehicle.</p> <p>xx) System should take minimum possible time to be set up and commissioned for use at new location within 30 minutes.</p> <p>xxi) System is required to work in the mines round the clock on 24x7 basis under all weather conditions.</p> <p>xxii) The bidders have to quote for all the hardware, Software along with application software, including that needed for a fully functional control room. The company will not be responsible for obtaining any additional software license.</p>												
3	Power Supply	System should have its own power supply unit consists of a quality DG set with full battery backup which will be automatically operative instantly and will provide uninterrupted power supply in case of failure of main source power failure. It should also have provision to connect external AC power source of 220V-240V AC 50 Hz single phase prevalent in Indian mines												
4	Scan/Coverage Angle	Horizontal-170 deg. or more Vertical - 60 deg. or more												
5	Measurement Accuracy	±1.0mm or Better												
6	Scan Time	15 minutes or less												
7	Operating Range	Minimum: 50 m or less Scanning Distance: Suitable for scanning every mine of Cluster V as given below: (i.e atleast 4.50 km)												
		<table border="1" data-bbox="477 1209 1412 1262"> <thead> <tr> <th data-bbox="477 1209 748 1247">Name of Mine</th> <th data-bbox="748 1209 1060 1247">Area</th> <th data-bbox="1060 1209 1412 1247">Scanning Distance (Km)</th> </tr> </thead> <tbody> <tr> <td data-bbox="477 1247 748 1285"></td> <td data-bbox="748 1247 1060 1285"></td> <td data-bbox="1060 1247 1412 1285">Atleast 4.50 Km</td> </tr> <tr> <td data-bbox="477 1285 748 1323"></td> <td data-bbox="748 1285 1060 1323"></td> <td data-bbox="1060 1285 1412 1323">Atleast 4.50 Km</td> </tr> <tr> <td data-bbox="477 1323 748 1356"></td> <td data-bbox="748 1323 1060 1356"></td> <td data-bbox="1060 1323 1412 1356"></td> </tr> </tbody> </table>	Name of Mine	Area	Scanning Distance (Km)			Atleast 4.50 Km			Atleast 4.50 Km			
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8	Geo referencing and Imaging System	System should have digital camera either integrated or independent. System should have facility for georeferencing in mine coordinate system to display the scan data.												
9	Alarm Facility	System should have real time analysis facility to provide multiple level alarms for different degree of dangers and shall have auto system to communicate through audio-visual alert (at least 02 points station) & SMS in mobile sets(at least 12 points).												
10	Enclosure	System should have effective enclosure for protection against dust, rain, wind lightening, etc.												
11	IP standard	IP 65 or better for all enclosures												

12	Weather monitoring sensors	System should have weather monitoring facility for Temperature and Humidity and also weather compensation algorithms.
13	System's Transport Speed	Up to 50 km/h or more (With or without antenna fitted)
14	Environmental Conditions (Under which system can work)	<ul style="list-style-type: none"> b. Temperature -0⁰ C to + 55⁰ C or more c. Wind speed -80 Km/h or more d. Atmospheric Pressure- 600 mbar to 1050 mbar or better e. Relative Humidity - up to 95% f. Rain -Fully protected against rain
15	Statutory requirement	System must conform to FCC (Federal communication commission) / ETSI (European Telecommunication standard institution) / Govt. of India certification of the offered product with documentary evidence.
16	Operating License	Successful bidder shall be fully responsible to obtain operating license and SACFA clearance from WPC/DOT on behalf of Subsidiary Company for the proposed slope stability monitoring radar system, for which necessary assistance would be extended by Subsidiary Company Subsidiary Company will provide proper documentation on time, duly signed and sealed as demanded by WPC. The licensing arrangement shall continue for total period of warranty and CAMC.
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18	Training	<p>Six weeks hands on training on operation, installation, data interpretation etc.to be imparted to the project personnel in three phases after successful commissioning and installation of the System</p> <ul style="list-style-type: none"> x) Phase -I: Two weeks training after commissioning of the system xi) Phase-II: Two weeks training after one month from completion of 1st phase training in mutual consultation with concerned authority. xii) Phase-III: Two weeks training after two months of completion of Phase-II training, in mutual consultation with concerned authority.
19	Software Upgrades	<p>Supplier shall provide the technical support as and when required by the project authorities and also upgrade the system software. Slope stability monitoring radar software shall be upgraded free of cost as and when upgraded in the market during 8(eight) years of the post period of successful installation/commissioning of the equipment.</p>
20	Responsibility of Supplier	<ul style="list-style-type: none"> xix) Determination of threshold value for warning & safe withdrawal of persons and machinery during the operation for the entire life of equipment (1 year warranty and 7 years CAMC period) shall be joint responsibility of the Supplier and mine management. The role of Mine management and supplier under joint responsibility is given in Annexure F xx) Supplier shall provide one Technical representative who will be stationed at the site of installation for the entire period of operation(1 year warranty and 7 years CAMC) to ensure requirements of operations, maintenance and service, etc. The Mine Management will provide a suitable accommodation on chargeable basis and all other arrangement has to be provided by the supplier. xxi) Shifting of the machine within the mine or to another mine, as decided by CIL, shall be the responsibility of the supplier. The transport facility will be provided by Mine Management and all other activities are to be taken up by Supplier including supervision. xxii) In case of shifting of the Radar from one mine to other mine of the Company, it shall be the responsibility of the supplier to arrange for new license, if required, and the Company will provide necessary documentation for the same. xxiii) The bidder shall provide the technical brochure and related detailed technical documents of the quoted model along with their offer. xxiv) Supplier shall establish monitoring stations in the mine premises at two different locations with the following equipment at each station. <ul style="list-style-type: none"> a. Desk Top computer with OS Windows 10 PRO,64 BIT.AMD RYZEN 5 PRO/QUADCORE Processors, / Intel i7 processr16GB RAM memory, 8years storage capacity (or better specifications). b. Min 32-inch smart TV with Key Board c. Color printer. necessary refilling of printer cartridges may be done time to time by the supplier (minimum 1 cartridge per month). d. UPS system for smooth functioning of whole system. e. Effective and uninterrupted communication system between the MSSR and the monitoring stations. f. Up keeping/updating of the above for eight years.

Joint Responsibility for determination of threshold supplier and Mine Management.

	Management Responsibility	Suppliers Responsibility
Legal	<p>CMR 2017 Regulation 106 (2) Before starting a mechanized opencast working, the owner and agent of the mine shall ensure that the mine, including its method of working, ultimate pit slope, dump slope and monitoring of slope stability, has been planned, designed and worked as determined by a scientific study and a copy of the report of such study has been kept available in the office of the mine:</p> <p>Provided that in case of mines where such a study has not been made, it shall be the responsibility of the owner and agent to get the said study made within one year from the date of coming into force of these regulations.</p> <p>(3) The owner, agent and manager of every mechanized opencast mines shall ensure that the recommendations made in the report of scientific study referred to in sub-regulation (2) are Complied with.</p>	<p>CMR Regulation 38. General responsibilities of supplier, manufacturer and designer.- A person who designs, manufactures, imports, provides or transfers machinery, equipment or substances for use in coal mines, shall -</p> <p>(a) ensure that the machinery, equipment or substances do not entail dangers for the safety and health of those using them correctly;</p> <p>(b) make available-</p> <p>(i) information concerning their requirement for the correct installation, maintenance and use of machinery and equipment and the correct storage and use of substances;</p> <p>(ii) information concerning the hazards of machinery and equipment, the dangerous properties of hazardous substances and physical agents or products; and</p> <p>(iii) Information on how to eliminate or control risks arising from the identified hazards associated with the products.</p>
Technical Responsibility	<p>1. To Conduct the Scientific study for determination of threshold Value (at which withdrawal of the men and machine safely from site of danger in sufficient time is required) of different locations of the mine which are required to be monitored over next 8 years.</p> <p>2. To conduct any associated geo-technical study, material sampling and testing required for the different studies.</p> <p>3. To affix the threshold Value (at which withdrawal of the men and machine safely from site of danger in sufficient time is required) of different locations of the mine which are required to be</p>	<p>1. To integrate the threshold value (at which withdrawal of the men and machine safely from site of danger in sufficient time is required) of different locations of the mine in Mine Slope Stability Monitoring Radar System and ensure proper alarming to the Mine Management in time.</p> <p>2. Data generated is the property of Mine Management. Data storage, data analysis and interpretation during the entire operation of the Mine Slope Stability Monitoring Radar System (8 Years) shall be responsibility of supplier. Supplier shall make all data and data analysis available to the Mine Management as and when asked without charging any cost and within 15 days of giving requirement to the supplier.</p>

	<p>monitored over next 8years.</p>	<p>3. Supplier will make two soft copies of data generated on weekly basis and submit one copy to Mine Management and keep second copy with them. Data shall be retrievable at all times.</p> <p>4. Non-disclosure of any data provided by the Mine Management and the data generated and analyzed by /through use of slope stability Monitoring Radar System without written permission of Subsidiary Company The supplier will issue a certificate for the same.</p>
<p>Penalty Clause</p>		<p>In case of failure to give alert through Mine Slope Stability Monitoring Radar System atpre-determined threshold value in time to Mine Management, results in loss of production or loss of life or injury to person or damage to the equipment in the mine, the same will be recovered from supplier to a maximum value of 10% of total value of the supply order in the name of the supplier, in addition to statutory Obligation on part of supplier through SD/PBG deposited by the supplier.</p>