

**WESTERN COAL FIELDS LIMITED
OFFICE OF THE GENERAL MANAGER (MATERIALS MANAGEMENT) PUR
COAL ESTATE , CIVIL LINES, NAGPUR – 440 001.
Ph.No. (0712)-2510501, email:gmmm.wcl@coalindia.in**

Notice for Pre-NIT meeting

WCL is in the process of procurement of PC based Hydraulic Dynamometer for Engine Testing through GeM Portal.

Draft NIT document is enclosed is herewith for ready reference. Interested Bidders are requested to send their comments/suggestions @ email id: sachin.khodke@coalindia.in by 18th November 2023 1:30pm.

Interested Bidders are requested to send their authorized representative to attend the Pre-NIT meeting scheduled to be held in the office of GM(MM) Pur HOD, WCL Hqrs, Coal Estate, Civil Lines, Nagpur on 20th November 2023 at 11:00 am.

Enclosed: Draft NIT document

Draft Technical Specification of water Dynamometer

SCHEDULE OF REQUIREMENT :

Item description	Requirement	NCD / PCD
PC based hydraulic dynamometer, complete in all respect, of capacity 300 BHP to 1200 BHP, capable of testing of Diesel Engines of Cummins model NT /NTA -855 C/Big Cam. KT /KTA -1150, KTTA-19C, QSK-19C, QSK23C, Caterpillar model CAT -3406, CAT -3408, CAT -3412 HEUI, CAT -C11(MEUI), Komatsu SAA6D170E-5 & BEML Model BS6D125 BE300, BS6D140, BSA6D140EG, BS6D170 D155/D355, BSA6D170 BE1000& BSA6D170EG BE1000along with standard accessories, standard Tools and Spares and Consumables for initial 24 months of operation of the Equipment from the date of commissioning of equipment.	1 nos	Replacement / NCD

The Scope and Phasing of supply for PC based hydraulic dynamometer is given in '**Schedule of Requirement'- Part "D"**.

Introduction

These Technical Specifications identify the technical requirements of the Goods and Services which are the subject of this Tender.

The Technical Specifications are presented in four parts as follows:

A. Scope of Supply

B. Specific Site Requirements

C. General Requirements

- 1) Geography and Climatic Conditions
- 2) Goods (Equipment and Machinery)
- 3) Services
- 4) Standards
- 5) Supplier's Responsibility
- 6) Spares Parts Provision
- 7) Availability provisions
- 8) Deemed Breakdown
- 9) Composite Warranty / Guarantee
- 10) Quality Assurance

D. Equipment Specification

Technical response

Bidders shall provide a Clause by Clause commentary demonstrating compliance with the Purchaser's Technical Specifications, together with full supporting technical literature and data sheets.

Wherever graphical representation of data (e. g. load, power, performance curves) is required, the grid axis and data shall be properly and clearly labelled for ready comprehension by the bidders.

Additionally, Bidders shall provide the information specifically requested in the Attachment to the Technical Specifications.

Failure to demonstrate compliance in all respects with the requirements of the Technical Specification may render the bid non-responsive.

Failure to provide any information requested in any part of this specification may deem the bid non-responsive.

Site Visits

The Bidder prior to making any Bid calculation and as part of the preparation of its Bid, shall be deemed to have visited and inspected the Site(s), made all enquiries and collected all information documentary or otherwise, including climatic conditions, as considered necessary by the Bidder for the proper and accurate preparation of its bid.

The bidder may visit the site(s) by prior appointment with the purchaser. The number of bidder's representatives permitted to make visits to the sites(s) shall be limited to a maximum of two.

Bidders wishing to make appointments for site visit should do so in writing or by facsimile directly with WCL and concerned officer as detailed in the following schedule. Copies of all communications to be sent to:

General Manager (MM)/ HOD

**General Manager (MM),
Western Coalfields Limied
Coal Estate, Civil Lines,
Nagpur- 440001 (Maharashtra)**

Area Name : Subsidiary Company	Project
Western Coalfields Limied Coal Estate, Civil Lines, Nagpur- 440001 (Maharashtra) Atten : General Manager,CWS, Tadali	Central Workshop Tadali, Chandrapur

PART- 'A'

A.1 Equipment Package.

The Supplier is required to provide a complete package of Equipment for the supply of PC based hydraulic dynamometer capable of testing Diesel Engines of capacity 300 BHP to 1200 BHP, at CWS Tadali of WCL, Nagpur as per the technical specification provided in Part –“D”

The Supplier is required to supply the equipment along with accessories, Consumables, Training, Installation, Testing & Commissioning at CWS Tadali.

The package also includes Consumable Spare and Consumables for 24 months of warranty period from the date of commissioning of the equipment.

The scope and phasing of supply for the of PC based hydraulic dynamometer is given in the **“schedule of requirement.”**

A.2 Supplementary Items

The equipment shall be provided with comprehensive toolkit which shall include any special tools required of erection and commissioning of equipment. First fill of all oils, grease and lubricants needed for test, erection and commissioning of the equipment.

A.3 Information & Drawings & Manuals ;

At least one month before the schedule of installation date, the supplier shall provide not less than :

- (a) Suitably illustrated copies of **Operating, Repair, and Maintenance Manual** for the type and model of Equipment and accessories, written in the English language, substantially bound in book form :

Three copies to CWS tadali;and

- (b) Suitably illustrated copies of detailed Spare Parts Manuals for the type and model of Equipment and accessories, written in the English language, substantially bound in book form :

Three copies to CWS tadali:and

One (1) copy each along with the soft copy to CWS tadali and General Manager (Excv) / HOD Subsidiary Hqts,.

In addition to the Equipment drawings, where appropriate, the supplier shall supply detailed drawings (in the same number of copies) illustrating erection /assembly at site, foundation and accommodation, for such items as Drive Motors, Pumps, Engines, switches installation etc.

A.4 Erection/Assembly, commissioning and Performance Testing :

The Supplier shall provide the service of Specialist Technicians (Refer Part- C.3) and required manpower (Skilled / Semi-skilled / unskilled) to undertake the installation/ erection/ assembly, commissioning and any performance testing of the plant, equipment and accessories supplied. The purchaser will assist in providing necessary facilities like erection tools and tackles (supplied along with the equipment), PC based hydraulic dynamometer with operator and electricity during erection and commissioning.

The technicians shall remain at site following commissioning until all necessary personnel are fully conversant with the maintenance and operation of the equipment.

A-5 Training

I. The supplier in consultation to the Section-In-charge, General Manager (Excv)/ HOD [Excavation] of the CWS Tadali / site shall make available experienced personnel to conduct training of engineers, supervisors, technician and operation personnel for specified periods mentioned in the table given in the **“Schedule of Requirement of Services”** from the date of issue of commissioning /acceptance certificate of the equipment.

II. The Training shall cover the following:

- a) Training on installed equipment by the bidder at their CWS tadali (As applicable).
- b) Equipment system, safety and risk assessment.
- c) Equipment Operation and maintenance.
- d) Trouble shooting, localisation of fault, and their remedies covering :

- 1. Electricals and Electronics.
- 2. Mechanical
- 3. Hydraulic system
- 4. Lubrication system

Comprehensive training manuals with clear illustration shall be provided to each participant in English language. The training courses shall be conducted in both English and Hindi languages.

PART – "B"

Specific Site Requirements

B.1 Project Specific Requirements

The equipment shall be suitable for use at the specific site i.e Central Workshop ,Tadali, Chandrapur, Nagpur of WCL under the climatic conditions detailed below:

B.1.1Bhatadi OCP

Central workshop ,tadali, is owned by the Western Coalfields Limited, a wholly owned subsidiary of Coal India limited (the purchaser") . The Workshop is located in the Chandrapur District of Maharashtra 20 KM from Chandrapur railway station.

PART- 'C'

C. GENERAL REQUIREMENTS.

C.1 Geography and Climatic Conditions.

Elevation :The natural surface varies from 100m to 1000m above mean sea level.

Climate: The climate is sub-tropical to tropical dusty with a hot and humid atmosphere.

Monsoon rains occur in the period from June to October –

Ambient Conditions Relative humidity - Maximum 98%

Temperature - Minimum 0⁰ C to Maximum 50⁰ C

Rainfall: The mean annual rainfall is 1000 mm. 90 to 95% of which may fall in rainy season from June to October.

Wind: Generally April to September - South to South Westernly& October to March - North Westernly

Speed - 8 Km per hr average and 100 Km per hour (max.).

Under foot Slushy and highly abrasive -

C.2 Goods (Equipment & Machinery)

Detailed specifications of the equipment to be supplied are given in **Part "D"** of this section.

In general all items shall be -

Designed and constructed to handle without overload and for the working hours stated, the maximum volumes/rates specified.

Designed to facilitate ready access, cleaning, inspection, maintenance and repair of component parts.

Designed to facilitate rapid changeover of consumable items.

The component parts of all items shall, wherever possible, be selected from the standard ranges of reputable manufacturers.

The Equipment and accessories shall be physically robust and where necessary capable of dismantling for transportation and ready re-assembly using simple tools. All equipment items provided shall be designed to be compatible within the proposed overall Scope of Supply.

All workmanship and materials shall be of first class quality in every respect.

All parts and surfaces which are exposed to corrosive environments shall be suitably protected to prevent any effects of corrosion or erosion.

C.3 Services ;

The supplier shall be responsible for the erection and commissioning of the equipment at site. The supplier shall depute qualified and competent engineer (s) and specialist technicians to supervise the entire assembly, erection and commissioning of equipment free of cost.

C.4 Standard:

The design, supply, erection, testing and commissioning of all equipment under this contract shall in all respect comply with the requirement of this specification and with the appropriate current Indian standards and codes, or relevant standards issued by the bureau of Indian standards or International Standard Organization, or any other equivalent International Standards , which correspond to specific ISO/ Indian standards indicated in the technical specification. Such equivalent International Standards are to be supported by documentary evidence certifying that offered standards are identical to the corresponding ISO/ Indian standards.

The equipment shall comply with requirements of the Statutory Government Authorities, including Director General of Mines Safety (DGMS), if any, having jurisdiction over the Equipment and its use.

The system of units for all measurements shall be the **System International Units (S.I.)**.

C.5 Suppliers Responsibility.

The purchaser requires that the Supplier shall accept responsibility for the provision of complete operable and compatible Equipment and systems within the Scope of Supply. This document identifies only the major items required for the installation and the Supplier shall ensure that the total supply includes all necessary equipment for it to function effectively and safely. Any additional items the Supplier considers necessary to ensure compliance with such requirements shall be identified and included.

If the Supplier observes that this specification documents contains any anomalies, ambiguities, flaws, errors or omissions, the supplier shall immediately bring these to the attention of the Purchaser but not later than 15 days prior to the due date of opening.

The supplier shall be responsible for the testing and commissioning of the equipments and ensure that it meets the requirements as specified. The commissioning and setting to work of the whole equipments supply package shall be carried out under the supervision of the Supplier in conjunction with the Purchaser's nominated personnel.

C.6 Spares Parts Provision:

C.6.1.a. Availability of Spares parts : All items and equipment proposed shall be of current design and manufacture. The supplier shall warrant that sufficient spares and servicing facilities will be available to maintain the equipment in use throughout its life.

C.6.1.b. Bought out assemblies and Sub-assemblies :

The supplier is required to furnish the details of all major bought out items as indicated in the technical specification against "Information to be provided by the bidder" .

The bought out items of the following category which are applicable to the Model of Dynamometer Offered by the Bidder is required to be furnished:-

Engines, Hydraulic Pumps, Hydraulic Motors, Hydraulic Cylinders, Brake parts, Brake systems, Hydraulic control valves, Fuel Injection pump, Travel device Assly, Electrical Control panel and other safety devices/sensors (as per application).

C.6.2 Provision of spare parts :

C.6.2.1 Within the Contract Price, the Purchaser shall agree to purchase all Operational, Maintenance and standby/ contingency Spare Parts, consumable items, Wear Materials, maintenance tools and special tools (herein after collectively referred to as "**Spare Parts**" unless the context specifies otherwise), in accordance with the supplier's recommendations for **24 (Twenty Four) Months** from the accepted date of issue of Commissioning certificate. Similarly, within the contract price, the purchaser shall also agree to purchase consumable items (hereinafter referred to as "**Consumables**" unless the context specifies otherwise), in accordance with the supplier's recommendations for **24 (Twenty Four) Months** from the date of issue of Commissioning certificate. The schedule of supply of spares and consumables shall be as indicated in the schedule of requirements,. In addition, the supplier shall provide **Spares parts and Consumables** for commissioning.

Consumables shall include items such as Oils, Lubricants, Grease, fluids and coolants also.

C.6.2.2

In the event that the Spare Parts and Consumables, as recommended by the Supplier, in any way fall short of actual requirements during the period for which they are said to be adequate, the supplier shall provide such additional spare parts and consumables as are necessary at final destination. Such additional spare parts and consumables shall be provided by the supplier to the Purchaser, **free of all costs** and shall be transported to Site by air freight internationally and by air, rail or fast road transport within India.

C.6.2.1 In the event that the operation of the plant is inhibited or frustrated as a direct result of lack of Spare parts and Consumables pursuant to clause C.6.2.2 hereof, then the period referred to in clause 'C.6.2.1' hereof shall be extended by a period of not less than the period during which operation as aforesaid was inhibited or frustrated.

C.6.3 Lifetime Spare Parts.

The supplier undertakes and guarantees to produce and maintain stocks, to be available for purchase by the Purchaser under separate agreements of all Spare Parts and Consumables as may be required for maintenance and repair of the equipment throughout its working life. In the event that the Supplier wishes to terminate production of such Spare Parts, the Supplier shall:

- (a) give not less than six months' notice in writing of its intention to terminate production in order to permit the Purchaser reasonable time in which to procure needed requirements and
- (b) immediately following termination, provide to the Purchaser at no cost, manufacturing drawings material specifications and all necessary permissions to facilitate manufacture of the spare parts elsewhere.
- (c) Any change in part no or superseded part number should be informed to the HOD of Excavation department / MM department of subsidiary hqrs. and the project site wherever the equipment is operating.

In any event, the Supplier shall not seek to terminate manufacture of spare parts for a period of not less than 15 (Fifteen) Years from taking over or the life time of the equipment whichever is later.

C.6.4. Oil, Lubricants and Fluids :

The Supplier shall provide to the purchaser a detailed schedule of all necessary Oils, Lubricants & fluids for operation and maintenance of the equipment. The schedule shall indicate estimated annual consumption and specify the appropriate international standard number or the name and reference number of equivalent available in India considered to be acceptable by the supplier.

C.6.5 General :

Nothing in this clause C.6 shall relieve the supplier of any guarantee, Availability, performance or other obligations or liabilities under the contract.

C.7 Guaranteed Availability

The guaranteed availability shall be as per 'Performance Guarantee' for PC based Dynamometeras below :

SN	Equipment	Minimum Annual Guaranteed Percentage Availability (In %)
1	PC based hydraulic dynamometercapable of testing Diesel Engines of capacity 300 BHP to 1200 BHP, atCWS Tadali of WCL, Nagpur	85% - for 24 months from date of commissioning.

C.7.1 Introduction

C.7.1.1 The supplier shall guarantee that the equipment supplied pursuant to this contract shall be available for use by the Purchaser and shall meet the performance criteria specifications at the level and in accordance with the terms and conditions of the Availability Guarantee herein contained.

C.7.1.2 Where equipment supplied under the Contract fails to meet the criteria of the Availability Guarantee, the Supplier shall, at its own cost, provide suitably qualified and experienced personnel at site to demonstrate to the purchaser's satisfaction that the required level of availability can be achieved and maintained.

C.7.1.3 The supplier shall provide the services of such personal at Site within (7) days of notification by the purchaser that the availability criteria have not been met in any one (1) month.

C. 7.2 Performance Guarantee

C.7.2.1 The supplier shall guarantee that the equipment supplied pursuant to the Contract shall be available to the Purchaser at the level hereinafter defined to perform to criteria of not less than that defined in the Technical Specifications incorporated in the Contract.

C 7.2.2 The Supplier shall guarantee that the equipment shall be available to perform its duty to minimum criteria and to the minimum availability percentage level as defined in the equipment specifications included as the Attachment to the Technical specifications.

The method of assessment applied shall be as follows :

Method of Assessment :

The following calculation shall determine the availability of the equipment

$$\% \text{ Availability} = \frac{(\text{Scheduled Available time} - \text{Down time})}{\text{Scheduled Available time}} \times 100$$

(Annual Scheduled Available time may be considered as 8760 Hrs.)

Down time shall mean all hours of work lost due to mechanical, electrical or other failure, including:

- a) routine servicing and maintenance in accordance with the manufacturer's published recommendations, including changing oils, oil filters and air filters; lubrication; changing identified consumable or wear parts.
- b) planned preventive maintenance programmes,

It shall not however include :

- i. Damage due to abusive use or incorrect operation methods by the Purchaser.
- ii. Accidents.
- iii. Strikes or stoppage of work by the purchaser's personnel
- iv. Natural disaster.
- v. Lack of spare parts not attributable to a failure of the supplier, its Agents or Representatives.

Down time shall also specifically include all hours lost due to failures determined to be guarantee failures.

The Supplier shall provide a schedule of maintenance required to carry out (a) and (b) above for the first 24 months (warranty availability period) of operation and **shall state the number of hours required to carry out each maintenance task**. The time stated shall, with the agreement of the Purchaser, form the basis of assessment of availability.

The schedule of tasks and time will be reviewed periodically by the purchaser and the Supplier, jointly, to monitor the practicality of the schedule.

The Purchaser will assist the Supplier, without relieving the Supplier of any other obligations under the Contract, to achieve the guaranteed availability by:

1. Providing normal and proper maintenance, including preventive maintenance in accordance with the Supplier's standards/ published recommendations, and making all necessary repairs using only spare parts provided by the Supplier in accordance with the requirements specified in part C6.
2. Providing co-operation to all Suppliers' authorized representatives, complying with all reasonable procedural suggestions to improve efficiency of machine operation or reduce downtime.
3. Where appropriate, providing and maintaining such conditions as :
 - Proper Electrical Supply
 - Terrain Area
 - Bench preparation
 - Reasonable Floor Conditions.
4. Providing all Suppliers' authorized representative access at all reasonable times to the machine service and repair facilities.

Maintaining a log book for each shift/working day wherein the breakdown hours and maintenance hours, shall be recorded. This record will be available for examination and signature by the Supplier's representative within the warranty period.

C.7.3 Effect and Duration of the Performance Guarantee :

C.7.3.1 This guarantee shall become effective on the day on which the Equipment is commissioned at the Site. Commissioning shall be evidenced by the issue of the Purchaser's Acceptance Certificate.

B.7.3.2 The guarantee shall remain effective for 24 months from the date of commissioning irrespective of the Hours operated by the equipment during the period of the guarantee.

B.7.3.3 Compensation for not achieving guaranteed Availability:

In the event that the Equipment fails to achieve the Availability herein provided, measured over each twenty four (24) months period, the Supplier shall be liable for and pay to the Purchaser, as liquidated damages, a sum equal to as indicated hereunder for each equipment against the PGB submitted by the bidder as per clause-2 of SCC

- a) **1** % of the delivered landed price of the equipment including the price of spares & consumables for 24 months period for reduction in every percentage or part thereof from the Guaranteed Availability for the first 5%.
- b) **10** % of the delivered landed price of the equipment including the price of spares & consumables for 24 months period for reduction beyond 5% from the Guaranteed Availability.

C.8 Deemed Breakdown :

When the supplier is unable to supply the replacement of a failed part during the contract period, and if the machine is commissioned by using the spare from the stock of the project, the period (after 21 days) till the supplier replaces the part under warranty shall be treated as "**Deemed Breakdown**" (the credit for keeping machine available shall not be given to the supplier).

The supplier shall not in any way be allowed to take out spare parts from other equipment, which are under breakdown and covered within the scope of this contract. However, CIL in the interest of work reserve the rights to advise the supplier to commission the breakdown equipment covered under this contract by taking out spare parts from other breakdown equipment. Nevertheless, during this period also, the equipment shall be treated as 'Deemed Breakdown' till the supplier replaces the spare parts.

C.9 Composite Warranty/ Guarantee

The Bidder shall warrant that the equipment supplied under this contract is:--

- a) In accordance with the contract specifications.
- b) The equipment shall have no defects arising out of design, material or workmanship & the Complete Equipment shall be warranted for 24 months from the date of commissioning. Any defect arising observed on this account will have to be attended immediately.
- c) The supplier must ensure that there is no major breakdown due to manufacturing/ design defects during the warranty period. In case such breakdown occurs, **the purchaser reserves the right to extend the warranty period suitably.**

The warranty shall cover the total equipment so that comprehensive responsibility lies only with the equipment supplier although components may be supplied by different supplier to the bidder.

C.10 Quality Assurance

C.10.1 The Supplier should furnish in detail its quality assurance plan for various stages of manufacture. The Quality Assurance plan shall comply with an internationally recognised quality assurance standard such as ISO 9000 **or equivalent.**

PARTD:-EQUIPMENTSPECIFICATIONS

Equipment Specification of a PC based hydraulic dynamometer capable of testing Diesel Engines of capacity 300 BHP to 1200 BHP

D.1.1 DESCRIPTION: PC based hydraulic dynamometer of capacity 300 BHP to 1200 BHP, capable of testing of Diesel Engines of Cummins model NT /NTA -855 C/Big Cam. KT /KTA -1150, KTTA-19C, QSK-19C, QSK23C, Caterpillar model CAT -3406, CAT -3408, CAT -3412 HEUI, CAT -C11(MEUI), Komatsu SAA6D170E-5 & BEML Model BS6D125 BE300, BS6D140, BSA6D140EG, BS6D170 D155/D355, BSA6D170 BE1000& BSA6D170EG BE1000. The Dynamometer shall be complete with all accessories fittings, control systems and indicators as given below, alongwith computer with requisite software & lincense with facility for automatic logging of the events during testing of Engine on dynamometer and test report generation and printer for printing of test report. Dynamometer should have built in safety against over speed and high torque, remote loading and unloading of engine, Remote throttle operation for both mechanical and electronic engine and remote Engine Start and Stop button.

D.1.2 The Dynamometer should be complete with a high accuracy strain gauge load-cell torque measuring system to measure power in either imperial or Metric of SI units. The dynamometer should be capable of absorbing power in one direction of rotation only (Uni-Direction only). The dynamometer should be supplied with close loop servo control valve to give constant torque, constant speed and position mode when used with control equipment. The dynamometer should be fitted with a toothed wheel arrangement and a magnetic pulse pick —up sensor (Non contact type) for use with digital RPM indicator. The Dyno Max Power 1500 kW or More at 2200 rpm /Max Torque 7000 Nm at 1000 rpm/ Max Speed 4000 rpm with measurement accuracy of the + / - 0.25% of rated capacity of Dyno. The dynamometer should be incorporated with : : One half coupling for connection between Cardan shaft & dynamometer :One inlet pressure switch, to safe guard Dynamometer against dry running :Grease lubricated shaft bearings. :Vent lines from Casing shall be provided for air & excess water discharge. Industrial rubber grade hoses are used for this purpose :This dynamometer will have water connection outlet at free end of the Dynamometer which means at non-driving end or opposite to engine.

D.1.3The Dynamometer should be equipped with the appropriate digital display of the following parameters:

- (1) Engine Lub Oil Temperature
- (2) Engine Water Outlet Temperature
- (3) Before Inter Cooler Temperature
- (4) After Inter Cooler Temperature
- (5) Engine Exhaust Gas Temperature (Left Bank)
- (6) Engine Exhaust Gas Temperature (Right Bank)
- (7) Engine Lub Oil Pressure(Main gallery)
- (8) Turbo Boost Pressure (left Bank)
- (9) Turbo Boost Pressure (Right Bank)
- (10) Piston Cooling Oil Pressure
- (11) Fuel Pressure
- (12) Engine RPM
- (13) Engine Torque
- (14) Engine Fuel Temperature
- (15) Dynamometer Water Pressure.

D.1.4DYNAMO CALIBRATION KIT It should be provided with hydraulic cylinder based calibration kit to carry out periodic checks of the accuracy of the load cell torque measuring systems of the dynamometer, whenever required and hence should be comprised of calibration arm, Hydraulic Cylinder of suitable Force & Calibration Grade Load Cell.

D.1.5MOTORISED INLET VALVE FOR DYNAMOMETER There should be provision to increase and decrease the water flow of dynamometer as per requirement during engine testing through Panel mounted push buttons.

D.1.6CONTROL SYSTEM The Control System for the Hydraulic Dynamometer should be Comprised of: Digital Dynamometer Controller unit with automatic control on engine in various modes of operation i.e. constant Speed, constant torque & open loop, under close loop control with high control accuracy and stability. Bump less mode transfer facility is provided to facilitate change of any operation mode without coming to engine idle speed, Digital display for Speed, Torque, Power, Excitation Current and Throttle position and Engine start stop

panel . Built in safety against over speed and high torque. Measurement Accuracy:- Digital Speed :- + / - 1 RPM Digital torque :- + / - 0.25% of FSD : Control cabinet : 6ft Height, 19" Rack Mounted : Motorised Inlet Valve Push Buttons : MCB & Hooter : In-Cell Display Panel & Digital Time Totalizer.

D.1.7 DIGITAL TEMPERATURE INDICATOR CUM CONTROLLER WITH TEMP. SENSOR For measurement of:- - Engine lub. oil temperature -Engine water inlet temperature -Engine water outlet temperature -Ambient Temperature -Fuel inlet temperature -Dyno water outlet temperature Range: 0 to 200 deg. C.

D.1.8 DIGITAL TEMPERATURE INDICATOR CUM CONTROLLER WITH THERMOCOUPLE SENSOR For measurement of :- Exhaust gas temp:- Range : 0 to 1000 deg. C for both the left and right bank separately, as applicable in different models of engines.

D.1.9 DIGITAL PRESSURE INDICATOR CUM CONTROLLER WITH PRESSURE TRANSDUCER For measurement of : - Engine lube oil pressure - Air intake pressure - Barometric pressure - Turbo Charge Inlet & Outlet.

D.1.10 MECH. ENGINE THROTTLE ACTUATOR: - With cable 6 mtr(approx) length - Stroke adjustment within wide limits.

D.1.11 MOTORISED ENGINE THROTTLE ACTUATOR: With wide stroke adjustment facility With Height Adjustment Stand.

D.1.12 GRAVIMETRIC FUEL CONSUMPTION UNIT : SUITABLE UPTO 1500 HP ENGINE Provision for measurement of volumetric fuel consumption should be there with suitable sensors to regulate specific volume of fuel required during testing, Digital timer (with suitable interface to connect with PC based system) should be provided for indication time in seconds for the selected volume of fuel. Least count of timer should not be more than 0.1 second.

D.1.13 UNIVERSAL CARDAN SHAFT With universal joints at both ends(with facility for greasing), one end splined to permit limited adjustment in length. It should be suitable for all the Cummins , Caterpillar, Komatsu & BEML Engines(both Low BHP upto 500 HP and High BHP Above 500 HP)

D.1.14 HEAVY DUTY GUARD OVER CARDAN SHAFT Guard should be provided as safety against rotating cardon shaft during engine testing with pivotal cover and quick release mechanical lock.

D.1.15 SUITABLE 'T' SLOTTED CAST IRON BED PLATE WITH HEAVY DUTY MOUNTING RAILS & SCREW COLUMNS x 6 NOS. FOR ENGINE MOUNTING. MOUNTING:- Should be provided to facilitate mounting of all the engines mentioned above for testing. (Front and rear mounting fabrication brackes on rail mouning shall be done at our end) Note : Civil construction shall be done at our end.

D.1.16 CABLE LOOM 12 to 15 mtrs.length approx. :- Provision for necessary wiring connection between : dynamometer & control Panel : Transducer box to Control Panel : Transducer to transducer box : From Mains to control Panel.

D.1.17 ALARM ANNUNCIATOR : In dynamometer control panel, provision for supervisory alarm system for monitoring of critical parameters of engine test bed should be incorporated. Fault conditions should be defined by audio / visual alarm and should initiate shut down operation. Fault reset facility should also be provided

D.1.18 DIESEL ENGINE SHUT DOWN ACTUATOR Safety point of view, should be provided with pneumatic operated shut down actuator in an emmergency case.

D.1.19 COOLING TOWER FOR DYNO COOLING WATER SUPPLY ARRANGEMENT : (Cooling Tower Installation Distance within 10 mtr. from Engine Test Cell. Water Sump Tank construction shall be done at our end. There should be suitable capacity of Cooling Tower including piping work for cooling of the Dynamometer & Engine also. Complete installation of cooling arrangement as well as commissioning of the same should be done by Supplier. It should include Control Panel with level controller & dry run protection.

D.1.20 TRANSDUCER BOX (WALL MOUNTED) There should be a provision of user friendly transducer box for protection of pressure sensor as well as to house standard sockets for thermo-couple and sensors. Complete installation of the transducer box with engine will be done by supplier.

1.21 .1Following data should be provided by the bidder:

- a) Model
- b) Type
- c) Water Pressure at Inlet (Kg/cm² or N/m²)
- d) Power range
- e) Accuracy
- f) data resolution

1.21.2 Brake Model

- a) Maximum Speed
- b) Maximum Brake Power
- c) maximum Torque
- d) Brake water operation Pressure
- e) Water needed for maximum power (in m³/h)
- f) Brake water Exit maximum temperature
- g) Torque measurement
- h) Rotation direction

1.21.3 Dynamometer Controller

- a) Operating Power supply
- b) Excitation Current
- c) Torque Pulsation
- d) Torque control range
- e) Display (Power/Torque/ Speed)

1.21.4 Provision for Plotting Graphs

- a) Horse power vs Speed Characterization
- b) Torque vs Speed Characterization

1.21.4 Exhaust gas Analyser

- a) Model
- b) CO(%) range
- c) Accuracy
- d) HC(ppm) range
- e) NO_x (ppm) range
- f) Accuracy

1.21.5 Arrangements to be made by the purchaser at shop floor for Installation and commissioning.

- a) Foundation and other infrastructure details

D.2.0 Provenness Criteria :

2.1- The equipment offered by the tenderer shall be considered proven provided **1(one)** numbers of quoted model/similar equipment, as defined below, or combination thereof, must have been supplied by the bidder (or Manufacturer in case bidder is not the manufacturer) in India to mining industry and/or to the other Industries (Private or Government/ Public Sector Undertaking) and performed satisfactorily for a minimum period of one year from the date of commissioning. The performance of only that equipment would be considered for assessing provenness which has been commissioned 1(one) year prior to the date of opening of tender but not prior to 5 years from the date of opening of tender (window period).

If the bidder claims provenness of the quoted model based on similar equipment, acceptance criteria for similar equipment shall be as per sub-clause 2.8 below.

Note: In case of Trial Orders placed by CIL and Subsidiaries, the Trial Order quantities will be considered for provenness.

2.2 In case the quoted model or similar equipment has not been supplied by the bidder (or Manufacturer in case bidder is not the manufacturer) in India or if supplied and commissioned in India but the same has not completed ONE year of performance for provenness as mentioned above, the offered equipment will be considered proven if the minimum worldwide population is Five numbers of offered or similar equipment or combination thereof which was commissioned ONE year prior to the date of opening of tender but not prior to 5 years from the date of opening of tender and performed satisfactorily for a minimum period of one years from the date of commissioning. The worldwide population of the bidder will be considered for provenness only when the bidder gives an undertaking that it has not supplied the quoted model or similar equipment 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-2.1

If the bidder claims provenness of the quoted model based on similar equipment, acceptance criteria for similar equipment shall be as per sub-clause 2.8 below.

2.3 In case the indigenous manufacturer is quoting the same/ similar type & model of the equipment as supplied by their foreign collaborator / foreign principal worldwide in the past and the quoted model of indigenous manufacturer has either not been supplied in India or if supplied and commissioned in India, but the same has not completed the ONE years of performance for provenness as mentioned above, the quoted model will be considered proven if the minimum worldwide population is Five numbers of quoted model or similar equipment or combination thereof which have been commissioned ONE years prior to the date of opening of tender but not prior to 5 years from the date of opening of tender and all of them performed satisfactorily for a minimum period of ONE year from the date of commissioning.

However, for worldwide population, foreign collaborator's experience of supplying the offered or similar equipment worldwide shall be considered only if the indigenous manufacturer submits digitally signed copy of their collaboration agreement with the foreign collaborator which should be valid as on the date of opening of the tender and should also remain valid at least upto supply and commissioning of the last equipment covered in the contract. However, the principal manufacturer will confirm to ensure supply of spares & consumables and service support for smooth running of the equipment throughout its life. Further, if any indigenous content is added by the indigenous manufacturer in the quoted model of the equipment, the foreign collaborator will give an undertaking for successful performance of the equipment with the indigenization carried out by the indigenous manufacturer during lifetime of the equipment.

If the bidder claims provenness of the quoted model based on similar equipment, acceptance criteria for similar equipment shall be as per sub-clause 2.8 below.

2.4 In case the indigenous manufacturer is quoting the same/similar type & model of the equipment as supplied by their licensor having valid IPR for the same type & model of equipment being offered worldwide in the past and the quoted model of indigenous manufacturer has either not been supplied in India or if supplied and commissioned in India, but the same has not completed the required years of performance for provenness as mentioned above, the quoted model will be considered proven if the minimum worldwide population is of Five numbers. of quoted model or similar equipment or combination thereof which have been commissioned ONE year prior to the date of opening of tender but not prior to 5 years from the date of opening of tender and all of them performed satisfactorily for a minimum period of ONE year from the date of commissioning.

However, for worldwide population, the bidder's and licensor's experience of supplying the offered or similar equipment worldwide shall be considered only if the indigenous manufacturer submits digitally signed copy of their License Agreement with the company having valid IPR for the equipment being offered, which should be

valid as on the date of opening of the tender and should also remain valid at least upto supply and commissioning of the last equipment covered in the contract. The bidder and licensor for the equipment being offered will also confirm to ensure supply of spares & consumables and service support for smooth running of the equipment throughout its life. Further, if any indigenous content is added by the indigenous manufacturer in the quoted model of the equipment, the foreign collaborator will give an undertaking for successful performance of the equipment with the indigenization carried out by the indigenous manufacturer during lifetime of the equipment.

If the bidder claims provenness of the quoted model based on similar equipment, acceptance criteria for similar equipment shall be as per sub-clause 2.8 below.

2.5 Indian Manufacturing entity of foreign manufacturer and bidding as Indigenous manufacturer:

In case the Indian manufacturing entity of foreign manufacturer who has sufficient facility for manufacturing, supply and after sales service of same or similar equipment as supplied by their foreign (principal) manufacturer worldwide in the past and quoted model of Indian manufacturing entity has either not been supplied in India or if supplied and commissioned in India, the same has not completed ONE year of performance for provenness as mentioned above, the quoted model will be considered proven, if the minimum world wide population is of 5(five) nos of offered or similar equipment thereof which have been commissioned ONE year prior to the date of opening of tender but not prior to 5 years from the date of opening of tender and all of them have performed satisfactorily for a minimum period of ONE years from the date of commissioning.

However, for worldwide equipment population, the bidder's and principal manufacturer's experience of supplying the quoted or similar equipment worldwide shall be considered only if the Indian manufacturing entity submits digitally signed copy of valid Legal Agreement/ Collaboration Agreement/ License Agreement/ MOU with foreign (principal) manufacturer for the equipment being offered and a declaration from the Foreign Manufacturer that all related required Intellectual Property of quoted equipment are accessible by the Indian manufacturing entity. Further, the foreign manufacturer will give an undertaking for successful performance of the equipment to be manufactured by the Indian manufacturing entity during lifetime of the equipment. The bidder and foreign principal manufacturer for the equipment being offered will also confirm to ensure supply of spares & consumables and service support for smooth running of the equipment throughout its life.

If the bidder claims provenness of the quoted model based on similar equipment, acceptance criteria for similar equipment shall be as per sub-clause 2.8 below.

2.6 "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 one year 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.

2.7 "Similar Equipment" shall be such equipment, which fulfills the following:

- a) Performs almost identical operations as the quoted model.
- b) Should be equal to or higher than the tendered capacity.
- c) Uses sub-components, sub-systems and major assemblies of substantially similar design & construction to the model quoted – only ratings/ specifications may differ (Lower or Higher).

2.8 Acceptance Criteria for Similar Equipment:

I. If the bidder claims provenness of the quoted model based on similar equipment as per sub clause-2.7 above, then the similar equipment should have performed satisfactorily for a minimum period of one (01) year from the date of commissioning along with satisfactory performance of quoted model for a minimum period of six (06) months from the date of commissioning within the window period of 5 years.

II. If the bidder claims provenness of the quoted model based on similar equipment as per sub clause-2.7 above and the similar equipment has performed satisfactorily for a minimum period of one (01) year from the date of commissioning but quoted model has not worked for a minimum period of six (06) months 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 six months 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 along with spares & consumables for warranty period for the quantity of first lot.

c. On satisfactory performance of all the equipment of first lot for six months from the date of commissioning [to be certified by the General Manager (Excv)/ HOD of the subsidiary company], 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 six months from the date of commissioning.

e. The original 10% PBG for the total contract value will be retained for entire contract period as per PBG clause of NIT.

Note:

In case of unsuccessful performance of the first lot of equipment supplied by the firms who qualify as per above sub clause 2.8.II, the following shall be applicable:

i) The 100% Additional Performance Bank Guarantee for the first lot of equipment shall be encashed by CIL. Consequent upon the encashment of the 100% Bank Guarantee due to non-achievement of stipulated minimum availability percentage, 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 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 CIL & subsidiaries for any capacity of this type of equipment.

iv) In case of equipment imported under Project Concessional Duty (PCD), the amount of Customs Duty Concession i.e. the differential amount of Normal Customs Duty (NCD) and PCD availed during import shall be recovered from the supplier with interest for refund to the Customs Authorities. The supplier shall deposit such amount to the purchaser on demand else the same shall be recovered from the Security Deposit Bank Guarantee / Performance Bank Guarantee of the supplier.

Note-2:

a) The bidder must submit documentary evidence i.e. authenticated copy of such contracts/purchase orders received by them & their satisfactory performance as above.

b) Considering the practical difficulties in obtaining the performance reports in cases where provenness of the offered product is being ascertained on the basis of supply made in other subsidiaries of CIL or other PSUs/ Govt. Departments/ private organisations, the bidder will submit a Self-Certificate in the following format, along with Proof of Payment against the Purchase Order(s)/ Rate Contract(s):

"The items covered in the Purchase Order(s)/ Rate Contract(s) copies enclosed with our offer have been fully executed and have performed satisfactorily as per the provisions of respective Purchase Order(s)/ Rate Contract(s) and all the complaints/ claim (s) lodged by the purchaser, if any, have been attended to and no complaints/ claims(s) are pending."

c) The authenticity of the self-certificate as well as other documents submitted/uploaded by the bidder will solely be their responsibility and appropriate action will be taken by CIL / Subsidiary Company if it is subsequently found to be misleading / false / forged.

d) However, the Purchaser reserves the right to obtain the performance directly from the end user of the item / product.

e) In case, any specific Purchase Order(s) has/ have not been fully executed and any complaint/ claim is pending, then details of such cases to be categorically mentioned with the reasons thereof so that decision making is in clear perspective without any hidden facts in the subject matter. If the bidder fails to submit documentary evidence as mentioned above, the bid may be considered as non-responsive and is likely to be rejected

Documents to be submitted along with Offer to establish the provenness of the bidder:

i) Supply order, for the quoted model or similar equipment, supplied during last 5 years from date of tender opening, from Mining Industry and/or from the other Industries (Private or Govt./Public Sector Undertakings-indigenous or global) against provenness criteria. at Cl. 1 above

ii) Satisfactory performance certificate against the submitted supply orders i.e. 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 one year 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.

iii) 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 for one year from the date of commissioning along with along with proof of payment against the Purchase order(s)/ Rate contract(s). The details of format for self-certification are given in Annexure-14 of NIT/Bid.

iv Start ups and MSEs are exempted from prior experience criteria and should submit proof of establishing the quality assurance & technical capability for tendered item issued by any statutory authority in line with Relaxation of Norms for Startups & MSEs in Public Procurement regarding prior experience - prior turnover criteria as per Annexure-1.

D.3.0 Delivery schedule: Within six months from date of supply order.No material to be supplied without delivery extension. Request for extension of delivery period to be made within the schedule delivery period.

D.4.0 Final Inspection/ Pre-despatch Inspection:

a. Pre-despatch Inspection: WCL reserves its right to get the Equipment inspected before dispatch by or the representative of GM(Excv) HOD, WCL Hqrs . Such inspection shall not, in case of any defect noticed later, entitle you to plead that inspection has been done by WCL before dispatch and absolve you of the obligation. Necessary tools and tackles etc to carry out inspection shall be provided by you. Pre-despatch Inspection fee is not applicable.

b. **FINAL INSPECTION** : Final Inspection of the consignment shall be carried out at the destination stores, which will be arranged by the consignee on receipt of stores.

D.5.0-DOCUMENTS TO BE SUBMITTED WITH OFFER :

(a) Self attested copy of supply order received in the past from the Mining Industry and/or from the other industries (Private or Government/Public Sector Undertaking – Indigenous or Global) for the type and tendered/higher capacity of the equipment offered as per the provenness criteria 2.0 Section-VI of NIT.

(b) Certificate of satisfactory performance from its user for a period of not less than one year from the date of commissioning against above supply order as per the provenness criteria 2.0 Section-VI of NIT.

(c) Self attested copy of valid test of engine from engine manufacturer as per the latest emission norm.

(d) Technical brochures/leaflets in respect of the offered equipment and bought outs viz. hydraulic pump, hydraulic motor, Engine etc containing all technical details.

(e) **DRAWING OF COMPLETE EQUIPMENT** showing broad dimensions of the PC based Hydraulic dynamometer.

(f) Undertaking about the "Life Time Spares parts" as per clause no 6.2.(a) and 6.2.(b).

(g) Details / list of standard & special tools & tackles (with make, type & model etc) , to be supplied along with each machine, covering all special tools specified under clause '9.1' Section -VI of NIT

(h) Details/ list of initial spares & consumables including -filters, orings etc.) required for first initial 24 months of operation, to be supplied along with machine.

(i) A detailed schedule of all necessary oils, lubricants, fluids for the operation and maintenance of equipment and specify the appropriate Grades, Indian and International standard references (whichever is applicable), suitable for different assemblies.

(j) Detailed quality assurance plan for various stages of manufacture. The Quality Assurance plan shall comply with an internationally recognised quality assurance standard such as ISO 9000 or equivalent.

(k) **NO DEVIATION CERTIFICATE**, confirming that the bidder accepts all the terms and condition of NIT and the offer conform to all technical specifications, parameters & clauses of NIT and certifying that there is "NO Deviation" in the offer.

D.6.0-DOCUMENTS TO BE SUBMITTED WITH THE SUPPLIES :

A-Suitably illustrated copy of operating, repair and maintenance instruction manual for all the equipment, in English language – 2 Sets.

B-Illustrated copy of detailed spare parts manuals covering all plant, equipment and accessories – 2 Sets.

C-Detailed drawings illustrating erection/assembly for the equipment – 2 Sets.

D-All the test certificates.

E-Statutory documents (if any).

F-Inspection and guarantee/warranty certificate.

G-Self attested photo copies of standard references related to BIS/IS/ISO/SAE as applicable/ followed.

H-Documents necessary for safety and other clearances/ approvals from Govt. and other regulatory bodies as applicable.

BUYER SPECIFICATION DOCUMENT (TECHNICAL PARAMETER SHEET(TPS))

ITEM DESCRIPTION: PC based hydraulic dynamometer

S/N	DETAILED TECHNICAL SPECIFICATION/ PARAMETER	Evaluation Criteria	BIDDER's VALUE (To be filled by bidder)	REMARKS
1	DESCRIPTION: PC based hydraulic dynamometer capable of testing of 300 to 1200HP Diesel Engines of Cummins model NT /NTA -855 C/Big Cam. KT /KTA -1150, KTTA-19C, QSK-19C, QSK23C, Caterpillar model CAT -3406, CAT -3408, CAT -3412 HEUI, CAT -C11(MEUI), Komatsu SAA6D170E-5 & BEML Model BS6D125 BE300, BS6D140, BS6D140EG, BS6D170 D155/D355, BSA6D170 BE1000& BSA6D170EG BE1000 etc. The Dynamometer shall be complete with all accessories fittings, control systems and indicators as given below, alongwith computer with requisite software & lincense with facility for automatic logging of the events during testing of Engine on dynamometer and test report generation and printer for printing of test report. Dynamometer should have built in safety against over speed and high torque, remote loading and unloading of engine, Remote throttle operation for both mechanical and electronic engine and remote Engine Start and Stop button.	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
2	The Bidder should mention the make, model of dynamometer & should submit printed technical leaflet for the same.	Mention the make, model of offered Dynamometer		Bidder should mention 'AGREED' in bidder's value for his eligibility.
3	The Dynamometer should be complete with a high accuracy strain gauge load-cell torque measuring system to measure power in either imperial or Metric of SI units. The dynamometer should be capable of absorbing power in one direction of rotation only (Uni-Direction only). The dynamometer should be supplied with close loop servo control valve to give constant torque, constant speed and position mode when used with control equipment. The dynamometer should be fitted with a toothed wheel arrangement and a magnetic pulse pick —up sensor (Non contact type) for use with digital RPM indicator. The Dyno Max Power 1500 kW or More at 2200 rpm /Max Torque 7000 Nm at 1000 rpm/ Max Speed 4000 rpm with measurement accuracy of the + / -0.25% of rated capacity of Dyno. The dynamometer should be incorporated with : : One half coupling for connection between Cardan shaft & dynamometer :One inlet pressure switch, to safe guard Dynamometer against dry running :grease lubricated shaft bearings. :Vent lines from Casing shall be provided for air & excess water discharge. Industrial rubber grade hoses are used for this purpose :This dynamometer will have water connection outlet at free end of the Dynamometer which means at non-driving end or opposite to engine	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.

S/N	DETAILED TECHNICAL SPECIFICATION/ PARAMETER	Evaluation Criteria	BIDDER's VALUE (To be filled by bidder)	REMARKS
4	<p>The Dynamometer should be equipped with the appropriate Gauges for the measurement and digital display of the following parameters:</p> <ul style="list-style-type: none"> (1) Engine Lub Oil Temperature (2) Engine Water Outlet Temperature (3) Before Inter Cooler Temperature (4) After Inter Cooler Temperature (5) Engine Exhaust Gas Temperature (Left Bank) (6) Engine Exhaust Gas Temperature (Right Bank) (7) Engine Lub Oil Pressure(Main gallery) (8) Turbo Boost Pressure (left Bank) (9) Turbo Boost Pressure (Right Bank) (10) Piston Cooling Gallerey Oil Pressure (11) Fuel Pressure (12) Engine RPM (13) Engine Torque (14) Engine Fuel Temperature (15) Dynamometer Water Pressure 	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
5	<p>CALIBRATION KIT It should be provided with hydraulic cylinder based calibration kit to carry out periodic checks of the accuracy of the load cell torque measuring systems of the dynamometer, whenever required and hence should be comprised of calibration arm, Hydraulic Cylinder of suitable Force & Calibration Grade Load Cell.</p>	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
6	<p>MOTORISED INLET VALVE FOR DYNAMOMETER There should be provision to increase and decrease the water flow of dynamometer as per requirement during engine testing.</p>	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.

S/N	DETAILED TECHNICAL SPECIFICATION/ PARAMETER	Evaluation Criteria	BIDDER'S VALUE (To be filled by bidder)	REMARKS
7	<p>The Control System for the hydraulic Dynamometer should be Comprised of:- Digital Dynamometer Controller unit with automatic control on engine in various modes of operation i.e. constant Speed, constant torque & open loop, under close loop control with high control accuracy and stability. Bump less mode transfer facility is provided to facilitate change of any operation mode without coming to engine idle speed, Digital display for Speed, Torque, Power, Excitation Current and Throttle position and Engine start stop panel . Built in safety against over speed and high torque. The above controller unit should be supplied with Power module for Hydraulic Dynamometer for processing signals to above system for control operation purpose.</p> <p>Measurement Accuracy:- Digital Speed :- + / -0.1% RPM Digital torque :- + / - 0.25% of FSD : Control cabinet : Motorised Inlet Valve Push Buttons : MCB & Hooter : In-Cell Display Panel</p>	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
8	<p>DIGITAL TEMPERATURE INDICATOR CUM CONTROLLER WITH SENSOR For measurement of:- -Engine lub. oil temperature -Engine water inlet temperature -Engine water outlet temperature -Ambient Temperature -Fuel inlet temperature -Dyno water outlet temperature Range: 0 to 200 deg. C</p>	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
9	<p>DIGITAL TEMPERATURE INDICATOR CUM CONTROLLER WITH THERMOCOUPLE SENSOR For measurement of :- Exhaust gas temp:- Range : 0 to 1000 deg. C for both the left and right bank separately, as applicable in different models of engines.</p>	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.

S/N	DETAILED TECHNICAL SPECIFICATION/ PARAMETER	Evaluation Criteria	BIDDER'S VALUE (To be filled by bidder)	REMARKS
10	DIGITAL PRESSURE INDICATOR CUM CONTROLLER WITH PRESSURE TRANSDUCER For measurement of : - Engine lube oil pressure - Air intake pressure - Barometric pressure - Turbo Charge Inlet & Outlet	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
11	DIGITAL TIME TOTALISER To enable test bed operator to record total time for which test bed has been under operation	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
12	ENGINE THROTTLE ACTUATOR, SHOULD INCLUDE : - High transient torque to overcome linkage friction - High resolution for accurate control - Stroke adjustment within wide limits The actuator should be designed to provide remote control of an engine throttle and should work in conjunction with electronic controller with all safety features. Necessary provision should be incorporated for position indication & feedback. Necessary enclosure should be provided for housing complete assembly of actuator with a provision for height adjustment. Removable covers should be provided for enclosure from side and top, for easy access for maintenance and setting of stroke. The actuator and engine control lever should be connected by means of a heavy — duty flexible cable of suitable length. The actuator should be provided with inbuilt facilities such as: - Thermal cut-out, to prevent motor overload - Torque limiting clutches as well as mechanical limit stops. - Pneumatically operated fail-safe arrangement, to retain the 0, position in case of power.	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.

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S/N	DETAILED TECHNICAL SPECIFICATION/ PARAMETER	Evaluation Criteria	BIDDER's VALUE (To be filled by bidder)	REMARKS
13	VOLUMETRIC FUEL CONSUMPTION UNIT; Provision for measurement of volumetric fuel consumption should be there with suitable sensors to regulate specific volume of fuel required during testing, Digital timer (with suitable interface to connect with PC based system) should be provided for indication time in seconds for the selected volume of fuel. Least count of timer should not be more than 0.1 second.	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
14	CARDAN SHAFT With universal joints at both ends, one end splined to permit limited adjustment in length. It should be suitable for all the Cummins , Caterpillar & BEML Engines(both Low BHP and High BHP) mentioned above.	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
15	GUARD OVER CARDAN SHAFT Guard should be provided as safety against rotating cardon shaft during engine testing with pivotal cover and quick release mechanical lock.	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
16	T SLOTTED CAST IRON BED PLATE FOR ENGINE MOUNTING:- Should be provided to facilitate mounting of all the engines mentioned above for testing	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
17	CABLE LOOM :- Provision for necessary wiring connection between : dynamometer & control Panel : Transducer box to Control Panel : Transducer to transducer box : From Mains to control Panel	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
18	ALARM ANNUNCIATOR In dynamometer control panel, provision for supervisory alarm system for monitoring of critical parameters of engine test bed should be incorporated. Fault conditions should be defined by audio / visual alarm and should initiate shut down operation. Fault reset facility should also be provided	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
19	DIESEL ENGINE START AND SHUT DOWN ACTUATOR The Dynamometer should be fitted with actuator for starting and shutdown of all the engines under testing in normal as well as alarm condition	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.

S/N	DETAILED TECHNICAL SPECIFICATION/ PARAMETER	Evaluation Criteria	BIDDER'S VALUE (To be filled by bidder)	REMARKS
20	WATER COOLING ARRANGEMENT FOR DYNO There should be proper arrangement for cooling of the Dynamometer. Complete installation of cooling arrangement as well as commissioning of the same should be done by you. It should include Control Panel with level controller & dry run protection.	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
21	TRANSDUCER BOX There should be a provision of user friendly transducer box for protection of pressure sensor as well as to house standard sockets for thermo-couple and sensors. Complete installation of the transducer box with engine will be done by you	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
22	Bidder must submit the leaflet of the offered item with technical details.	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
23	At least one month before the schedule of installation date, the supplier shall provide Suitably illustrated copies of Operating, Repair, and Maintenance Manual for the offered dynamometer and accessories, written in the English language, substantially bound in book form. In addition, where appropriate, the supplier shall supply detailed drawings i.e. electrical connections etc.	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
24	Erection/Assembly, Commissioning and Performance Testing will be done by the bidder, generic tools will be provided by purchaser, however any special tool required for commissioning and operation will be provided by bidder. Electricity connection and Civil Construction, if required shall be provided by the purchaser.	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
25	Spares parts should be made available on chargeable basis after warranty period for the entire useful life of dynamometer i.e. minimum 15 years from the date of commissioning	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
26	<u>Delivery schedule:</u> Within six months from date of supply order.	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
27	<u>Warranty / Guarantee terms:</u> 24 months from date of satisfactory commissioning	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
28	<u>PBG</u> ; The bidder has to submit 'Performance Bank Guarantee' equivalent to 10% of the total contract value, valid for 24 (twenty-one) months from date of satisfactory commissioning. The same will be released/extended as per satisfactory performance & no-claim certificate from the user end.	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.

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S/N	DETAILED TECHNICAL SPECIFICATION/ PARAMETER	Evaluation Criteria	BIDDER'S VALUE (To be filled by bidder)	REMARKS
29	<u>Special terms and conditions:</u> Commissioning of dynamometer should be done at the site by supplier free of cost as well as training should be given to the user free of cost.	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.
30	Bidder has to clearly mention their claimed status in the subject bid whether quoted as Indigenous manufacturers or Agent of indigenous manufacturers or Indian Manufacturing entity of foreign manufacturer or Start-ups or MSEs of tendered/ similar item(s) and submit/ upload valid & relevant documents, duly self-attested, required as per eligibility/ proveness criteria (as mentioned in Buyer Uploaded ATC Document), in support of their claimed status in the subject GeM bid.	Clearly mention their claimed status		Bidder should clearly mention their claimed status in bidder's value for his eligibility.
31	Bidder should submit/ upload self-attested copy of this 'BUYER SPECIFICATION DOCUMENT/TPS' with duly filled bidder's value	AGREED or DISAGREED		Bidder should mention 'AGREED' in bidder's value for his eligibility.

NOTE: The above terms & condition will suspend the GeM terms & condition in case of any conflict/ contradiction between two

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Commercial Terms and Conditions:

Bidders should read the following terms and conditions and accept while participating in tender/bid for respective items (those are applicable to them):

1. Eligibility Criteria for Bidders:

(Documents related to Eligibility Criteria should be submitted by the bidders, along with offer)

- a)** Only the Local Suppliers i.e. Class – I Local supplier (a supplier or service provider, whose goods, services or works offered for procurement has local content equal to or more than 50%) and Class – II Local Supplier (a supplier or service provider, whose goods, services or works offered for procurement has local content more than 20% but less than 50%) are only eligible to Quote.

The Local suppliers (Class I / Class II) shall have to submit the certificate regarding the quantum (Percentage) of the local content and shall also give details of the location(s) at which the local value addition is made as per the Annexure "A" of NIT.

Non-Local Suppliers are not eligible to participate in this Domestic Tenders which meant only for Indigenous Manufacturers / Local Suppliers.

Local content means the amount of value added in India, which is the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all custom duties) as a proportion of the total value, in percent.

For definitions of 'Local Supplier', 'Local Content and 'Margin of Purchase Preference' refer following clauses:

The definitions of 'Local Supplier', 'Local Content and 'Margin of Purchase Preference' are as follows:

- (i) '**Class - I Local Supplier**' means a supplier or service provider whose Goods, Services or Works offered for procurement, has Local content equal to or more than 50% as defined under this Order.
- (ii) '**Class - II Local Supplier**' means a supplier or service provider whose Goods, Services or Works offered for procurement, has Local content more than 20% but less than 50%, as defined under this order.
- iii) '**Non – LocalSupplier**' means a supplier or service provider whose Goods, Services or Works offered for procurement, has Local content less than or equal to 20%, as defined under this order.
- iv) '**Local Content**' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, 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.
- (v) '**Margin of Purchase Preference**'

means the maximum extent to which the price quoted by a local supplier may be above the L I for the purpose of purchase preference. The margin of purchase preference is 20%.

Verification of local content: (i) 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 minimum 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.

- (ii) In cases of procurement for a **value in excess of Rs. 10 crores**, 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.

- (iii) CIL/ Subsidiary Companies may constitute committees with internal and external experts for independent verification of auditor's/ complaints.
- (iv) False declarations will attract banning of business of the bidder or its successor(s) as per provisions of CIL Purchase Manual 2020 along with such other actions as may be permissible under law.
- (v) A local 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.

Note: Indigenous / Indian Manufacturer, if referred anywhere in the NIT, means a local supplier

b) **Indian Agent of Local Supplier:** (Broadly includes Distributor, Dealer, Channel Partner etc.) Procurement should generally be made from manufacturers only.

However, if the manufacturer does not quote directly to any organisation 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), the procurement shall be made from its authorised Indian Agent based on the tender specific authorisation issued by the manufacturer mentioning tender reference number and date and validity of such authorisation.

The list of documents to be submitted by the bidder:

i) Local Suppliers (Class-I Local Supplier and Class – II Local Supplier): In case the bidder is a Local supplier (Class-I Local Supplier and Class – II Local Supplier), they have to submit scanned self attested copy of the valid registration with NSIC / SSI/ DIC / UDYAM / Registrar of Companies / any other document issued by statutory bodies etc, to establish themselves that they are the manufacturer of the offered items along with certificate regarding the quantum (Percentage) of the local content and details of the location(s) at which the local value addition is made as per the Annexure "A" of NIT.

ii) **In case of Indian Agent of Local Supplier** (Class-I Local Supplier and Class – II Local Supplier):

1. Self attested copies of the Manufacturing credentials of the Local Supplier viz valid registration with NSIC / SSI/ DIC / UDYAM / Registrar of Companies / any other document issued by statutory bodies etc to establish that their Principal is the manufacturer of the offered items along with certificate (to be issued by Local supplier) regarding the quantum (Percentage) of the local content and details of the location(s) at which the local value addition is made as per the Annexure "A" of NIT.

2. A tender specific authorization issued by the manufacturer mentioning tender reference number and date and validity of such authorization (Format as per Annexure "B & C" NIT).. Authorization should be pre-dated (from the tender opening) and should be properly signed and its validity should correspond to the delivery period stipulated in the Tender Enquiry.

3. Undertaking from the manufacturer that, as a matter of its corporate policy, it does not quote directly to any organization in India (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). 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 as per provisions of the NIT and the CIL Purchase Manual 2020, if the justification provided by the bidder has not been considered adequate and satisfactory by the procuring entity. Further, if at any stage, it is found that agency commission has been paid by the manufacturer/ principal without declaring the agent, the commission will be recovered with interest.

4. Undertaking from the manufacturer that it will accept the responsibility for the satisfactory execution of orders placed on the authorized agents including warranty/ guarantee obligations.

5. Undertaking from the manufacturer that, wherever necessary, it will provide requisite inspection and testing facilities at its works in respect of orders placed on authorized agent.

6. Undertaking from the manufacturer that the authorized agent's price will not exceed that which the

manufacturer would have quoted.

7. Undertaking from the manufacturer that in the event of placement of order on their authorized dealer, the goods supplied / goods offered for inspection would be accompanied by a certificate stating that the goods have been manufactured by them.

8. Undertaking from the manufacturer that No agent / Middle man / Liaising agent or any entity in any name other than the disclosed authorized Indian Agent is involved in the process of procurement of goods and services.

(if subsequently at any stage, it is found that it has given a false certificate, it shall be liable for penal action as per the provisions of CIL Purchase Manual 2020).

9. Undertaking from the bidder (authorized dealer) that he will be responsible for all the contractual obligations including quality aspects, replacement of part/items and warranty/ guarantee obligations, and also will be responsible for providing the required after sale service.

10. The business entity of the Indian Agent should be in existence for 3 years on the date of tender opening, irrespective of date of appointment as Indian Agent. The relevant self attested document in this regard is to be submitted along with the offer.

Note:

1. If both the Local Supplier (Class – I Local Supplier and Class – II Local Supplier) and the Indian Agent participates in this tender, then the offer of the Indian Agent will be rejected.

2. One manufacturer can authorize only one Indian agent.

3. If Indian Agents submits bid on behalf of a manufacturer, the same agent shall not submit a bid on behalf of another manufacturer in the same tender for the same item / product.

In case of procurement of commercially off-the-shelf available products (if specifically declared in the NIT), general authorization / dealership / distributorship certificate shall be considered in place of tender specific authorization.

2. RELAXATION OF NORMS FOR STARTUPS & MSEs in Public procurement regarding prior experience–Prior turnover criteria. :

As per Department of Expenditure, Ministry of Finance OM No. F.20/2/2014/PPD-(Pt) dated 25.07.2016 circulated vide note F. No. 24/2/2013/Fin-I dated 02.08.2016, relaxation of the condition of prior turnover and prior experience in public procurement has been extended to all Micro and Small Enterprises and Startups (whether MSE or not) subject to meeting of quality and technical specifications, i.e. must have the technical capability to deliver the goods and services as per prescribed technical and quality specifications.

Micro and Small Enterprises (MSEs) registered with District Industries Centers or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicrafts and Handloom or any other body specified by Ministry of Micro Small and Medium Enterprises (MoMSME) and **MSEs registered under the UDYAM** are eligible for claiming relaxation, on submission of self attested copy of valid document in support of their MSE status.

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 [GSR No. 127(E) dated 19.02.2019 of Gazette of India]. Self attested copy of the valid Registration with DPIIT shall be submitted along with the offer.

Accordingly the Prior experience and turn over criteria is not applicable for startups & MSEs in this tender in respect of either of the following situations and no further documents regarding provenness will be required to be submitted by these bidders.

a) If bidders have submitted documents to prove the Startup / MSE status for the tendered item and submitted the attested copy of the certificate towards quality assurance and capability from some authority like MSME, NSIC etc.

b) However, If bidders have submitted documents to prove their Startup / MSE status for the tendered item but without certificate towards quality assurance and capability from some authority like MSME, NSIC etc., the tender inviting authority, if needed, may assess the techno commercial capability of these vendors to manufacture and deliver goods as per the prescribed quality and technical specification before awarding contract to them. For this purpose, a 'Proforma for Equipment and Quality Control' (as per Annexure- "D" has been enclosed in the tender documents and such MSEs/ Startups should submit the details of plant & machinery, quality control arrangements, etc., in the above proforma along with their bids for verification of their technical capability. After opening of bids, the verification of technical capability may be done by the concerned Technical Department.

If required, a techno-commercial team of the organization may visit the manufacturing unit of the vendor for quick finalization of tenders.

In case there is deficiency in technical capability of the firm, the same shall be communicated to them by TIA for improvement in the quality of their product for future tenders and clearly indicate that their offer cannot be considered for relaxation against the tender in question in order to avoid any future complications. The issues relating to Technical capability shall be decided by the Head of the Technical Department.

c) If favourable 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 are not more than one year from the date of opening of bids.

d) 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 CIL 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, self certified, 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 Companies for the quoted items or
- a valid DGMS Approval certificate for the quoted items or
- Proven Ancillary certificate issued by the 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 copy of such document(s) / certificate (s) valid on the date of supply, duly notarized, must accompany their bill(s).

3) BANNED OR DELISTED OR DEBARRED OR PUT ON HOLIDAY SUPPLIERS

The manufacturer as well as the bidder (if bidder is not the manufacturer) will give a declaration that they have not been banned or de-listed or debarred or 'Put on Holiday' by any Government or quasi-Government agencies or PSUs. If a bidder and/or manufacturer has been banned or delisted or debarred or 'Put on Holiday' by any Government or quasi Government agencies or PSU, this fact must be clearly stated and it may not necessarily be a cause for disqualifying them.

However, If the manufacturer/bidder is banned or delisted or debarred or 'Put on Holiday' in DoE/MoC/WCL / CIL, their offer shall be rejected.

4. Pre-contract Integrity Pact: Not Applicable.

5. Clarification of Bids/ Shortfall/ Confirmatory Documents:

After evaluation of the uploaded documents, shortfall documents, if required, shall be sought from the bidder. For this purpose, **maximum 1 chance** shall be given. The time period for the clarification will be 7x24 hrs given to the bidders to upload these clarifications / shortfall documents.

The bidder will upload the requested documents within the specified period and no additional time will be allowed in this regard for on-line submission of documents after the maximum 1 chance, of 7x24 hours duration. If the bidder does not comply or respond by the specified date & time, his tender will be liable to be rejected

The shortfall information/documents shall be sought only in case of historical documents as per GeM provision/rules.

6. Payment terms:

A)

i) 80% value of the equipment and 100% taxes and duties and other charges excluding erection & commissioning charges shall be made within 21 days after receipt and acceptance of materials at site at the consignee's end and submission and Acceptance of Performance Bank Guarantee.

ii) Balance 20% payment including erection & commissioning charges shall be made after successful completion of erection, testing, commissioning and final acceptance of the equipment (along with the accessories) upon presentation of successful commissioning certificate, signed by Staff Officer of the technical department of the area / Area General Manager of concerned area, to the effect that the equipment has been erected and commissioned to their entire satisfaction and performance testing at the allocated location.

Note: All MSME vendors/supplies are advised to get themselves registered on TReDS platform (www.treds.in) or on www.rxil.in and avail the facility of the TReDS.

B) Paying Authority:

General Manager(Fin), WCL, Hqrs, Nagpur.

7. Submission of Bills: The supplier will submit the following documents along with bills to the paying authority:

- 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 Ultimate Consignee.
- b. 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. Any other document(s) required as per contract / Technical specifications of the bid / contract.

8. Security Deposit: Applicable; The Successful bidder who have been awarded the contract/ Supply order is required to submit the Security Deposit. Security Deposit shall be for an amount of 10 %(Ten per cent) of Order value. As indicated in Bid document.

EXEMPTION OF SECURITY DEPOSIT :

All Central/State Government Organization/PSUs shall be exempted from submission of Security Deposit.

Note: No exemption from Security Deposit shall be allowed for Ancillaries of WCL/MSE / Startups

9. Performance Bank Guarantee:-Applicable

Successful Tenderer will have to submit performance bank guarantee for 10% of the order value (landed cost) valid for a period of 15 months of from the date of commissioning of equipment to cover the guarantee period and the same shall be released on receipt of satisfactory performance throughout the guarantee period.

The PBG extension if any shall be done on or before expiry of original date of expiry of bank guarantee. The PBG should be on equipment wise. The Bank Guarantee shall be released after successful completion of the guarantee/warranty period after confirmation from GM(EXCV)HOD, WCL(HQ)s..

No payment shall be made without submission of Performance Bank Guarantee. PBG may be submitted equipment-wise also.

The Performance Bank Guarantee shall be released after receipt of satisfactory performance and no claim certificate from the user department.

The format of Bank Guarantee to be issued shall be in paper form as well as issued under "Structured Financial Messaging System"(SFMS) is attached as Annexure-6. The Bank Guarantee to be submitted shall be in Paper form as well as on SFMS platform

(This is in addition to the Security Deposit to be submitted @10% of order value)

E-PBG for 10%, as indicated in bid document is towards security deposit and to be deposited as per GeM provision. Security Deposit (E-PBG-10%) will be released after successful completion of supplies and acceptance of the material as per contractual terms and submission of performance bank guarantee.

In addition to Security deposit the successful bidder has to submit PBG in offline mode for 10% of contract value as per Format of PBG Attached at Annexure-'I'.

10. Delivery Schedule: As per cl. D.3.0 of the NIT. Within six months from date of supply order. No material to be supplied without delivery extension. Request for extension of delivery period to be made within the schedule delivery period.

11. Bidder to submit the following documents along with their offer / bid documents

1. Local content certificate (as per Annexure "A")
(In case of Indian Agents of the Local Suppliers quoting against the Tender, **their Principals** should submit the certificate, & in subject tender, self-certificate shall be required from the participating bidder)
2. Documents in support of Eligibility (documents as applicable for Manufacturer / Indian Agent including Annexure "B" and Annexure "C", as the case may be).
3. Proforma For Equipment And Quality Control (As per Annexure- "D")
4. Lowest Price Certificate-Annexure "F"
5. Price Fall Clause- Annexure "G"
6. Banned or Delisted or Debarred or Put On holiday suppliers declaration – Annexure-"H" (In case of Indian Agents of the Local Suppliers quoting against the Tender, **both the Indian Agent** and **their Principals** should submit the certificate.)

SELF CERTIFICATE TOWARDS LOCAL CONTENT

(to be submitted by the Local supplier **choose any one below condition,**)

(1) This is to certify that we fall in the category of Class I Local Supplier and the Goods offered by us against this tender has the local content equal to or more than 50%. The details of Location(s) at which the Local value addition is made are as under:

OR

(2) This is to certify that we fall in the category of Class II Local Supplier and the Goods offered by us against this tender, has the local content of more than 20% but less than 50%. The details of Location(s) at which the Local value addition is made are as under:

Value addition is done at the following location:

Address of Location / Factory _____

Authorized Signatory of
Local Supplier

Date:

Seal of the firm

(Note: 1. To choose any one above condition, as applicable)

2. In case of Indian Agents of the Local Suppliers quoting against the Tender, their **Principals** should submit the above mentioned certificates.

FORMAT FOR AUTHORIZATION TO BE SUBMITTED BY THE INDIAN AGENTS :(to be typed on the Principals letter head and should be pre dated(prior to tender opening date and properly signed)

To
General Manager (MM)
Western Coalfields Ltd

Dear Sir.

We, M/s. (..... name of the Principal firm.....) represented by the undersigned, Mr/Ms.....
Director/ Partner /Legal Attorney / Proprietor /Employee / Accredited Representative hereby authorize
M/s. _____ (Name of the Bidder firm) to participate in the tender and submit the offer
and enter into contract / Supply order, on our behalf against this tender. This authorization is valid till the
successful execution and completion of contract period against this tender. We further confirm that:

1. As a matter of our corporate policy, we do not quote directly to any organization in India (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). If, subsequently, at any stage, it is found that we have quoted directly to any organization in India (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), we shall be liable for penal action as per provisions of the NIT and the CIL Purchase Manual 2020. Further, if at any stage, it is found that agency commission has been paid by us without declaring the agent, the commission may be recovered with interest.

2. We will accept the responsibility for the satisfactory execution of orders placed on the authorized agent including warranty/ guarantee obligations.

3. Wherever necessary, we will provide requisite inspection and testing facilities at our works in respect of orders placed on authorized agent.

4. The price quoted by our authorized agent will not exceed the price which we would have quoted.

a) In the event of placement of order on our authorized dealer , the goods supplied / goods offered for inspection would be accompanied by a certificate stating that the goods have been manufactured by us.

b) We further confirm that No agent / Middle man / Liasoning agent or any entity in any name other than our authorized Indian Agent is involved in the process of procurement of goods and services against this tender. If subsequently at any stage, it is found that false certificate is given, we shall be liable for penal action.

c) We have never been banned or de-listed or debarred or 'Put on Holiday' by any Government or quasi-Government agencies or PSUs.

OR

d) We were banned/de-listed/debarred/'Put on Holiday' by the organization named "-----
-----" for a period of ----- year/s, effective from ----- to -----
----for ----- (the reasons to be mentioned).

**Signature of Authorized signatory of Principal
Date & Seal of the firm**

UNDERTAKING TO BE SUBMITTED BY THE INDIAN AGENTS
(to be typed on the Indian agent letter head)

To
General Manager (MM)
Western Coalfields Ltd

Dear Sir.

Against the Tender no: _____, we have quoted as the authorized dealer /indian agent of M/s. _____ who is the manufacturer of the offered products. We confirm that we will be responsible for all the contractual obligations including the quality aspects, replacement of parts / items , warranty / guarantee obligations and also provide the after sales and services.

We have submitted the following documents.

- 1.**Tender specific authorization from the Principal including the specific confirmations as required as per the terms of the NIT.
- 2.**Self attested copies of the Manufacturing credentials of the Principal to establish the principal is the manufacturer of the offered items alongwith the certificate for Local content issued by the Local Supplier
- 3.**The self attested copy of the documents to prove that our business entity is existence for 3years on the date of tender opening.

Signature of Authorized Dealer / Indian Agent
Date:
Seal of the firm

PROFORMA FOR EQUIPMENT AND QUALITY CONTROL

(To be submitted by the Start-ups / MSE firms who claim the relaxation of the prior turnover and prior experience criteria)

Reference : Western Coalfields Ltd, Hqrs

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
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. Process Flow Chart for the whole manufacturing process of the tendered item
8. Details and stocks of raw materials held.
9. Production capacity of items quoted for with the existing plants and machinery (a) Normal (b) Maximum
10. Details of Quality Assurance Plan and Quality Control Infrastructure such as laboratories etc.
11. (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.
12. 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 si nos. 5 to 12 inclusive need be restricted to the extent they pertain to the items under reference.

LOWEST PRICE CERTIFICATE

Format for Lowest Price certificate-to be submitted along with offer & supply.

This is to certify that the prices quoted by us for the offered items are the lowest prices as applicable to any other Organization / Ministry / Department of the Govt, of India or Coal India Ltd. and /or its Subsidiaries or other PSU or any other private organization.

Signature of Bidder

Date:

Seal of the firm

PRICE FALL CERTIFICATE

(to be submitted by the supplier **along with offer and supply**)

The Bidder undertakes along with offer as under:

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:

- i) Export/Deemed Export by the supplier.
- ii) Sale of goods or services as original equipment prices lower than the price charged for normal replacement.
- iii) Sale of goods such as drugs, which have expiry date.
- iv) 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:

- a. The currency of contract will mean the period till completion of supply.
- b. 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.
- c. 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.
- d. 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.
- e. The provisions of fall clause will however not apply for purchase value upto Rs. 2.00 lakh.
- f. Point (b) above is not applicable in the case of renewal of Depot agreement.

BANNED OR DELISTED OR DEBARRED OR PUT ON HOLIDAY SUPPLIERS DECLARATION

This is to certify that we have not been banned or de-listed or debarred or 'Put on Holiday' by any Government or quasi-Government agencies or PSUs.

Signature of Bidder

Date:

Seal of the firm

OR

If bidder has been banned / Delisted /Debarred/ Put on Holiday, by any Government or quasi-Government agencies or PSU, then bidder has to indicate the details below:

(1) Name of the Organisation which has banned the bidder:

(2) Ban Period:

(3) Reasons for BANNING OR DELISTING OR DEBARRING OR PUT ON HOLIDAY:

Signature of Bidder

Date

Seal of the firm

Signature of Bidder

Date:

Seal of the firm

Note: In case of Indian Agents/ authorized dealer/distributor of the Local Suppliers quoting against the Tender, **both the Indian Agent and their Principals** should submit the above mentioned certificate.

Performance Bank Guarantee Format

Re : Bank Guarantee in respect of Agreement / Contract / Purchase Order vide no dated..... between Western Coalfields Limited and (Name of Supplier Company) Messers a 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 Western Coalfields Limited (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 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 condition 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 may be 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.....and interest are fully satisfied and the company certifies that the agreement regarding re-payment of the said sum of Rs..... 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 theday of..... 20.. and unless the guarantee is renewed or a claim is preferred against the Bank within the validity period and / of 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) who has signed it on behalf of the Bank has authority to do so.

**The Bank Guarantee is operational for all purposes at Nagpur Branch, Maharashtra (Address & Branch Code -----
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The details of beneficiary bank for sending details of BG under SFMS Platform is furnished below

Name of beneficiary and details	
Name	Western Coalfields Ltd
Area	Head Quarter
Bank A/c No: / Cust ID of beneficiary	Current Account no: 005905018053; Customer Id: 556096497 ; ICICI Bank Ltd, Commercial Banking, 9C/A& 9C/B, Ground Floor, Shriram Towers, LIC Square, Nagpur - 440001, Maharashtra
IFSC code	ICIC0000059
Bank Manager Name & Ph no:	UJJWAL KITE: Ph n: 0712-6627389
BG ADVISING MESSAGE - 760COV / 767COV via SFMS	
Field Number	Particulars
7035	ICICI0000059
7037	WCL556096497

Dated this.....Day of.....20...

Place

Signature of the authorized person

For and on behalf of the Bank