



## **Expression of Interest (EOI) for Propulsion System for Metro application**

Ref No: PES/KMR/EOI/001

### **EXPRESSION OF INTEREST**

**FOR**

**Partnering with BHEL (PRE – BID TIE UP)**

**ON**

**Design, Development, Manufacture, supply, testing & Commissioning of 152 sets of  
Electrics with 3 Phase AC Propulsion System for Kolkata metro**

**Issued by:**

**Bharat Heavy Electricals limited, Electronics Division**

**Mysore Road, Bangalore 560026, India**

**(Hereinafter referred to as 'BHEL')**

**Having its registered office at**

**Bharat Heavy Electricals Limited**

**BHEL House, Siri Fort New Delhi-110049**

संदर्भ सं.: पीईएस/केएमआर/ईओआई/001

कोलकता मेट्रो के लिए '3 फेज एसी प्रोपल्शन प्रणाली के साथ इलेक्ट्रिक्स' के 152 सैटों के  
डिज़ाइन, विकास, विनिर्माण, आपूर्ति, परीक्षण एवं कमीशनिंग हेतु

**बीएचईएल के साथ पार्टनर के रूप में 'प्री-बिड टाई अप' (PRE – BID TIE UP)**

**के लिए**

**रुचि-प्रकटन (EXPRESSION OF INTEREST)**

जारीकर्ता:

भारत हेवी इलेक्ट्रिकल्स लिमिटेड, इलेक्ट्रॉनिक्स डिविज़न

मैसूर रोड, बेंगलोर 560026, भारत

(जिसे आगे 'भेल' कहा गया है)

जिसका पंजीकृत कार्यालय

भारत हेवी इलेक्ट्रिकल्स लिमिटेड

भेल हाउस, सीरी फोर्ट नई दिल्ली-110049 है।

### **DISCLAIMER**

All information contained in this EOI provided / clarified are in good interest and faith. The information contained in this Expression of Interest document or subsequently provided to Applicant(s), whether verbally or in documentary or any other form, by or on behalf of BHEL, is provided on the terms and conditions set out in this EOI and such other terms and conditions subject to which such information is provided.

The purpose of this EOI is to provide interested parties with information that may be useful to them in the formulation of their application for qualification and subsequent selection pursuant to this EOI. This EOI is not an offer by BHEL to the prospective Applicant(s) or any other person. This EOI is neither intended nor shall it be construed as creating or requiring any ongoing or continuing relationship or commitment with any party or person. This is not an offer or invitation to enter into an agreement of any kind with any party.

Though adequate care has been taken in the preparation of this EOI document, the interested firms shall satisfy itself that the document is complete in all respects. The information is not intended to be exhaustive. Interested Agencies are required to make their own enquiries and assumptions wherever required. Intimation of discrepancy, if any, should be given to the specified office immediately. If no intimation is received by this office by the date mentioned in the document, it shall be deemed that the EOI document is complete in all respects and firms submitting their interest are satisfied with the EOI Document in all respects.

The issue of this EOI does not imply that BHEL is bound to select and shortlist Applicant(s) for next stage or to enter into any agreement(s) with any Applicant(s). BHEL reserves all right to reject any applications submitted in response to this EOI document at any stage without assigning any reasons thereof. BHEL also reserves the right to withhold or withdraw the process at any stage. Neither BHEL nor its employees and associates will have any liability any loss, expense or damage which may arise from or be incurred or suffered in connection with anything contained in this EOI document or any matter deemed to form part of this EOI document, the information and any other information supplied by or on behalf of BHEL. BHEL accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance/use of any statements/information contained in this EOI by the Applicant. BHEL is not making any representation or warranty, express or implied, as to the accuracy or completeness of any information/statements made in this EOI.

The Applicant shall bear all its costs associated with or relating to the preparation and submission of its Application including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by BHEL or any other costs incurred in connection with or relating to its Application. All such costs and expenses will remain with the Applicant and BHEL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Applicant in preparation or submission of the Application, regardless of the conduct or outcome of the EOI.

### 1.0 INTRODUCTION

This Expression of Interest (EOI) seeks response from Original Equipment Manufacturer (OEMs) who have past experience in designing and manufacturing of Propulsion System inclusive of TCMS for Metro application.

### 2.0 ABOUT BHEL

Bharat Heavy Electricals Limited (BHEL) is a Central Public Sector Enterprise, wherein Government of India is holding 63.06% of its equity. It is an integrated power plant equipment manufacturer and one of the largest engineering and manufacturing companies of its kind in India having a turnover of about USD 5 billion. The company is engaged in the design, engineering, manufacture, construction, testing, commissioning and servicing of a wide range of products and services for the core sectors of the economy, viz. Power, Transmission, Industry, Transportation, Renewable Energy, Oil & Gas and Defence with over 180 product offerings to meet the needs of these sectors.

Since its inception in 1964, BHEL has been the solid bedrock of evolution of India's Heavy Electrical Equipment industry. BHEL has a mammoth 20,000 MW per annum capability for manufacturing of power generation equipment. A widespread network of 17 manufacturing units, 2 repair units, 4 regional offices, 8 service centres, 1 subsidiary, 4 overseas offices, 6 joint ventures, 15 regional marketing centres and current project execution at more than 150 project sites across India and abroad corroborates the humongous scale and size of its operations.

With key focus on project execution, the worldwide installed base of power generating equipment supplied by BHEL has exceeded 178 GW. BHEL's equipment that account for about 60% of the country's total generation from thermal utility sets (coal based), stand a testimony to its valuable contribution towards nation building. BHEL's global competitiveness has established its footprint in all the inhabited continents with references in 82 countries.

The high level of quality & reliability of BHEL products is a testimony to its adherence to international standards by acquiring and adapting some of the best technologies from leading companies in the world including General Electric, Siemens AG, Mitsubishi Heavy Industries Ltd. etc., together with technologies developed in its own R&D centres. BHEL invests more than 2.5% of turnover on R&D and innovation.

BHEL has been designing and manufacturing rolling stock for rail and urban transportation. BHEL has also been manufacturing Motors, Power electronics and Controllers for various transportation applications at its various factories. BHEL also has a Battery Packaging facility for space applications.

In transportation sector, BHEL is into the manufacture of complete electric and diesel electric locomotives and electrical assemblies/components including traction motors, traction transformers, power & auxiliary converters and controls, gear wheels etc.

At Jhansi plant, we manufacture complete Electric Locomotives upto 6000 HP rating for mainline application of Indian Railways, Diesel Electric Locomotives from 350 HP to 3100 HP rating. Till date, we have supplied more than 370 nos. of main line electric locomotives Indian Railways and more than 250 nos. of diesel electric locomotives for shunting operations to different industries. We are currently executing an order for manufacture of complete Electric Locomotive of 6000 HP. Our Jhansi plant with an installed capacity of 75 nos. locomotives per year. At Jhansi, we have complete state-of-the-art facilities for manufacturing, fabrication and testing of bogies, loco shells, under frames and other mechanical components of locomotives. We have recently developed India's first state-of-the-art WAG7 Electric Locomotive with regenerative capabilities. We have also developed India's first Traction Motor for 9000HP Electric Locomotives.

At Bhopal and Bengaluru plants, among electrical propulsion equipment, we manufacture and supply traction motors, traction transformers, power converters(IGBT/GTO) & controls, auxiliary converters(IGBT/GTO) and vehicle control units for electric locomotives, diesel electric locomotives, EMUs, DEMUs & and metros trains of Indian Railways. Our manufacturing range includes conventional DC drive, IGBT based 3-phase drive equipment upto 6000HP rating. BHEL has also been in the forefront of providing maintenance and spares/replacement support to Indian Railways for their locomotive fleet. We have full-fledged service department located at major centers in the country.

**More details about the entire range of BHEL's products and operations can be obtained by visiting our web site [www.bhel.com](http://www.bhel.com).**

### **3.0 PURPOSE**

- 3.1 Indian Railways (IR) has invited bids for DESIGN, DEVELOPMENT, MANUFACTURE, SUPPLY, TESTING & COMMISSIONING OF ELECTRICS WITH 3-PHASE AC PROPULSION SYSTEM FOR KOLKATA METRO AS PER RDSO SPECIFICATION NO.RDSO/PE/SPEC/EMU/0182 (REV-1) 2015 with ICF ANNEXURE-ICF/KM/0182-01(Rev.00)

<https://www.ireps.gov.in/epsn/nitViewAnonyms/rfq/nitPublish.do?nitId=3512744&activity=viewNIT>

- 3.2 The intent of this Expression of Interest hereinafter referred to as the "EOI" is to invite applications from interested organizations / companies who are willing to Partner for **PRE-BID TIEUP** with BHEL to supply the following for the above mentioned project:

1. BHEL through this Expression of Interest intends to associate with pre-bid partner for DESIGN, DEVELOPMENT, MANUFACTURE, SUPPLY, TESTING & COMMISSIONING OF 3-PHASE AC PROPULSION SYSTEM FOR KOLKATA METRO.
2. Indian Railways has issued tender for total 38 rakes (152 sets). Under the current EOI, Minimum 2 Nos. prototype rakes (CBU) shall be sourced from the EOI Pre Bid partner. Balance order quantity from Indian railways (Split order less 2 Nos.

prototype rakes as finalized by Indian Railways) shall be manufactured at BHEL Electronics Division Bengaluru. EOI pre bid partner shall provide all necessary design/ manufacturing/ testing/ installation/ commissioning documentation and requisite support along with associated software.

The scope of partnership between BHEL and Pre-Bid Partner are as below:

S.No.	Item	Description	IR Total Tendered Quantity (38 Rakes/ 152 sets)	
			Pre-Bid Partner	BHEL
1	Under slung 1. Traction Converter (TC). Tentative Rating is 600 KVA  2. Auxiliary Converter (AC) and Battery Charger. Tentative Rating of AC is 300 KVA	Design, development, manufacture, testing and commissioning of Converters. Detailed scope to be finalised in partnership agreement.	Type tested Complete Build Unit (CBU) prototype quantity - 2 rakes 1. Traction Converter - 8 Sets (1 Set consists of 2 Nos. of TC)  2. Auxiliary Converter and Battery Charger - 8 Sets.	36 rakes or Split order quantity as finalized by IR minus 2 rakes CBU.
2	Train Control and Management System (TCMS) including Brake Systems Solutions  Maximum 1216 panels for 152 sets (38 Rakes)	Design, development, testing and commissioning of TCMS Hardware, software and interface of propulsion systems. Detailed scope to be finalised in partnership agreement.	Type tested Complete Build Unit (CBU) prototype quantity - 2 rakes  Tentative No of panels 64 Nos for 2 rakes.	36 rakes or Split order quantity as finalized by IR minus 2 rakes CBU.

Refer Price Schedule Appendix to Annexure 4 for list of items to be considered by bidder. Spare quantity shall be additional to above and shall be quoted in accordance with price schedule.

The pre bid partner to be selected through this EOI shall be in accordance with following:

1. The pre-bid partner shall provide due support to BHEL for fulfilling the contract obligations to end customer (Indian Railways).
2. Pre bid partner shall be select based on following:
  - a. Compliance to Pre-Qualification Criteria (PQC)
  - b. Compliance to EOI specification requirements
  - c. Compliance to RDSO & ICF technical requirements mentioned elsewhere in this EOI.
  - d. Lowest (L1) bidder as per Annexure 4 (Evaluation criteria).
3. Pre bid partner shall enter into a mutually exclusive agreement with BHEL. Pre bid partner cannot quote directly or enter into any kind of joint arrangement with any other party for the above mentioned Kolkata Metro tender.

## 4.0 SCOPE OF ACTIVITIES FOR MENTIONED TENDER:

*Indicative scope split for items in EOI proposal* **R -> Responsible, S -> Support**

Proposed system for the scope of partnership as per Cl. 3.2 shall fully comply with RDSO SPECIFICATION NO.RDSO/PE/SPEC/EMU/0182 (REV-1) 2015 with ICF ANNEXURE-ICF/KM/0182-01(Rev.00). No deviation with regard the same is acceptable.

The matrix of responsibility, supply and work for the proposed partnership in accordance with Cl. 3.2 is as below:

### 4.1 Responsibility Matrix:

SI No	Scope	Proto type ( 2 rakes)		Series Supply (Balance Split order quantity as finalized by IR)	
		Pre-bid partner	BHEL	Pre-bid partner	BHEL
1)	System Engineering includes performance calculation, equipment and component selection, sizing, rating calculations, weight balancing, cable rating finalization etc.	R	S	R	S
2)	Layout of equipment	R	S	S	R
3)	Schematics (Power, control & Communication ) & harness and wiring chart	R	S	S	R
4)	RDSO/ICF approval of design documents	S	R	S	R
5)	Development of DDU software	R	S	R	S

6)	Hardware Design and software for Traction Converter (Inverter)	R	S	R	S
7)	Hardware Design and software for Auxiliary converter	R	S	R	S
8)	Hardware Design, software and Communication interface for TCMS	R	S	R	S
9)	Combined system testing at partners works or any other facilities.	R	S	-	-
10)	TCMS testing for Proto type Rakes	R	S	-	-

### Notes to Cl. 4.1

- Bidder shall provide Calculations regarding performance / equipment sizing and rating requirements including RAMS/ MTBF for Traction converter, Auxiliary converter and TCMS meeting RDSO specification.
- Bidder shall provide Design documents viz., details of components and electronics cards. (Including Temperature simulations for various equipment, Harmonic estimation and control, Battery and Battery charger capacity calculations, Auxiliary Load calculation and any other specific requirement by the RDSO / IR).
- Bidder shall provide Manufacturing information of converter, electronic cards, firmware, GERBER files and any other requisite support for series rakes production at BHEL EDN works, Bengaluru.
- Bidder shall provide Type test and routine test information at component level and at the equipment level.
- Bidder shall provide application Software along with design details and documentation for Traction converters, Aux converters and TCMS.
- Bidder shall support for addressing component obsolescence, failure of equipment during warranty & any warranty obligations arising out of inadequacy of design if any in future.
- Bidder to consider TCMS components like VCU Controller, Ethernet switches, Gateways, Repeaters, Connectors etc. based on his Network Architecture and RDSO specification requirements.
- Bidder scope shall include complete system integration of TCMS with other systems like traction system, brake system, door system, driver desk, DDU, Passenger Information system etc. as mentioned in RDSO specification.



- Bidder shall have full involvement, support and responsibility in combined system testing, TCMS testing, Installation, commissioning and Train level customer testing and take responsibility regarding the scope.

### 4.2 Scope of Supply:

SI No	Scope	Proto type ( 2 rakes)		Series Supply (Balance Split order quantity as finalized by IR)	
		Pre-bid partner	BHEL	Pre-bid partner	BHEL
1)	Traction converter (Inverter) with associated software.	R	S	S	R
2)	Auxiliary convertor and Battery Charger with associated software.	R	S	S	R
3)	TCMS Panels with associated software	R	S	S	R
4)	DDU* with associated software	R	S	R	S
5)	Spares and Tools & Tackles (List as per Price Schedule – Appendix to Annexure 4 shall be applicable for bidder)	R	-	-	R
6)	Commissioning Spares (to be decided mutually) **	R	S	S	R

Note: (\*) DDU and Software shall be supplied by the selected partner for CBUs (2 Prototype Rakes). For Series supply rakes only DDU software shall be supplied by the selected partner. DDU will be procured by BHEL.

(\*\*) Commissioning spares, not consumed, shall be retained by BHEL.

### 4.3 Scope of Work:

SI No	Scope	Proto type ( 2 rakes)		Series Supply (Balance Split order quantity as finalized by IR)	
		Pre-bid partner	BHEL	Pre-bid partner	BHEL
1)	Installation of all equipment at ICF Chennai	S	R	S	R
2)	Commissioning of rake at ICF	R	S	S	R

3)	Commissioning of rake at User Railway including system integration.	R	S	S	R
4)	Vehicle testing trial of rake	R	S	S	R
5)	Warranty	R	S	S	R
6)	Training to BHEL Engineers	R	S	-	-
7)	Technical support for designed life of equipment	R	S	R	S

Please note that the list is not exhaustive and additional activities may be added if deemed necessary to meet tender requirements.

Bidders can indicate suggested scope division in case of any difference from the one indicated above, however the same shall be subject to BHEL evaluation and acceptance.

Detailed scope to be finalised in partnership agreement.

## 5.0 INSTRUCTION TO APPLICANTS:

Bidders are requested to submit the bid in TWO STAGES.

- Stage-I Bid shall comprise of Part I & II as detailed below.
- Stage-II, a password protected price Bid (Part III). Bid shall be requested from qualified bidders separately.

5.1 Signed and sealed Offer to be submitted in Three (I, II & III) parts:

a. **Part-I:** Submit the following along with supporting documents:

- General Information (Annexure-1)
- Pre-Qualification Requirements (Annexure-2)
- Pre Bid Tie up model including comments on Scope split as per Cl. 3.2 & 4.0.

b. **Part-II:**

- Technical Offer and Clause wise comments for RDSO Spec no: RDSO/PE/SPEC/EMU/0196-2019 (Rev.0) with ICF ANNEXURE-ICF/KM/0182-01(Rev.00) along with addendum/corrigendum for Bidders' quoted scope
- Compliance to commercial terms and conditions (Un priced)

c. **Part-III:**

- Price Offer (Sealed/ password protected).

Evaluation criteria for Bidders shall be as per Annexure-4.

Commercial terms for the EOI shall be as per Annexure-5.

- 5.2 Reputed business entities to submit their offer as per Cl. 5.1 by Post / e-mail so as to reach us on or before **14<sup>th</sup> August 2021 by 14:00 Hrs (IST)** for Stage-I Bid at the following address.

BHEL shall call for Stage-II bid submission from qualified bidders by **17<sup>th</sup> August 2021**.

Date for Stage-II Bid submission shall be **19<sup>th</sup> August 2021 by 14:00 Hrs (IST)** for qualified bidders.

Address for Correspondence:

Mr. K.Venkateshalu  
Deputy General Manager, PES,  
Bharat Heavy Electricals Limited  
Electronics Division, Mysore Road  
Bangalore 560 026, India.  
Email: venkateshalu@bhel.in  
Phone: +91 80 26998881, Mob: 9449001832 / 9901442005

- 5.3 The details submitted by the Applicant shall be complete in all respects and BHEL may seek clarifications/additional information as considered necessary. Such clarifications/additional information must be provided within 3 days of BHEL request.
- 5.4 Any request for further information or clarification on the EOI document may be submitted to the above mentioned official within 07 days from date of issue of EOI.
- 5.5 Responses to EOI are to be submitted in English only. Supporting documents, as required, should also be in English language. In case of documents being available in languages other than English, the Applicant shall provide duly translated & authenticated version of the same in English.
- 5.6 Duly authorized representative of the bidder shall sign on each page of the document. Response to EOI should be prepared in such a way so as to provide a straight forward, concise description of Applicant's capabilities.
- 5.7 Notwithstanding anything contained in this EOI, BHEL reserves the right to accept or reject any Application and to annul the EOI Process in whole or part, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons thereof.
- 5.8 BHEL reserves the right to verify all statements, information and documents submitted in response to the EOI. Any such verification or lack of such verification by BHEL shall not relieve the Applicant of his obligations or liabilities hereunder nor will it affect any rights of BHEL.
- 5.9 The EOI process shall be governed by, and construed in accordance with, the laws of India and the Courts at Bangalore shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the EOI process.

5.10 All costs incurred for participation in the EOI shall be borne by the bidder.

**6.0 PRE-QUALIFYING CRITERIA (PQC):**

PQC responses to be submitted as per Annexure-2.

- 6.1 Be a supplier for Traction Converter, Auxiliary Converter and TCMS for metro systems.
- 6.2 Must have executed at least ONE (01) project, supplying the system as per Cl. 6.1 for Metro underslung system (25KV AC system or 750VDC) with Maximum service speed of 80 kmph or more and the executed project must be running successfully for minimum ONE Year anywhere across the world in the last FIVE (05) years from the date preceding submission of this EOI.
- 6.3 Has engineering/design/manufacturing capabilities for design, development, manufacturing, testing and commissioning of proposed scope of work.
- 6.4 Has not been blacklisted / banned for business dealings by Ministry of Railways or any Government Department of India.
- 6.5 No previous contract has been terminated or part terminated due to bidder's failure.
- 6.6 Has not suffered insolvency / bankruptcy.
- 6.7 Respondent must have positive net worth as of last financial year.

Information to be submitted by bidder

1. Name of the Company:
2. Legal status of the Company:
3. Brief description of the Company including details of its business groups/subsidiaries/ affiliates:
4. Date of Incorporation:
5. Date of Commencement of Business:
6. Full address including Telephone nos. / Fax nos.:
  - Registered Office:
  - Head Office:
  - Address for communication:
  - Contact Details:
  - Office Address in India, if any:
7. Documents to be enclosed:
  - a) Technical Credentials – Relevant Product/System catalogues, Experience /Reference List, Copies of Customer Certificates, Engineering strengths, quality accreditations, etc.
  - b) Financial Credentials – Copies of Audited Financial statements (Annual Reports) for last 3 years, Credit Rating, Market share (Domestic/International), Segmental Revenue in the applied category(ies).
  - c) Other documents considered relevant to meet PQR and support evaluation criteria.

(Sign & Company Seal)

Authorized signatory

Pre-Qualification Criteria - Declaration

S.N.	Requirement	Applicant's Response Yes/No	Supporting document
1.	Be a supplier for Traction Converter, Auxiliary Converter and TCMS for metro systems .		
2.	Must have executed at least ONE (01) project, supplying the system as per Cl. 6.1 for Metro underslung system (25KV AC system or 750VDC) with maximum service speed of 80 kmph or more and the executed project must be running successfully for minimum ONE Year anywhere across the world in the last FIVE (05) years from the date preceding submission of this EOI.		
3.	Has engineering/design/manufacturing capabilities for design, development, manufacturing, testing and commissioning of proposed scope of work.		
4.	Has not been blacklisted / banned for business dealings by Ministry of Railways or any Government Department of India.		
5.	No previous contract has been terminated or part terminated due to bidder's failure.		
6.	Has not suffered insolvency / bankruptcy.		
7.	Respondent must have positive net worth as of last financial year.		

Documents considered relevant to meet PQC declaration of above shall be submitted by bidder against each clause.

(Sign & Company Seal)

Authorized signatory

**Broad Summary of Technical Requirements**

- 1) Kolkata Metro is 750Vdc third rail system.
- 2) Traction motor are in BHEL scope. Their Design rating shall be finalised based on Performance Calculations, provided by the selected partner.
- 3) The maximum current drawn by a 08 car rake to meet the performance requirements of this specification at 675Vdc shall not exceed 6400 Amp under full load and upto 8600 A for short duration (upto 10 seconds) (Clause 2.6.3 of RDSO Specification referred at Cl. 3.2/ EOI).
- 4) The efficiency of the complete auxiliary converter system including sine filter shall not be less than 94% at full load. (Clause 3.5.11.2 of RDSO Specification referred at Cl. 3.2/ EOI).
- 5) The peak efficiency of traction system consisting of current collector, traction converter (inverter) and traction motor shall not be less than 88% at one operating point in the maximum power zone of the driving operation characteristics under loading conditions specified in clause 2.2 with a line voltage as per clause 2.6.
- 6) Battery charger, auxiliary transformers and filters for feeding auxiliary loads shall be part of scope of supply of Auxiliary convertor. Battery charger shall have sufficient rating to feed battery of 500-600Ah for at least 3 hours.
- 7) Tentative estimated requirement of Analog/Digital I/Os for TCMS is as follows:

	<b>DTC</b>	<b>MC</b>	<b>TC</b>	<b>Per 08 Car Rake [DTC + MC + MC + TC+ TC + MC + MC + DTC]</b>
<b>Total Digital I/Ps</b>	248	128	112	1232 ± 10%
<b>Total Digital O/Ps</b>	96	64	64	576 ± 10%
<b>Total Analog I/Ps</b>	12	8	8	72 ± 10%

However, Exact number of I/Os shall be finalized during detailed design stage.

**EVALUATION CRITERIA****1. Price bid:**

Price bid will be invited only from qualified Bidders, meeting the pre-qualification criteria and conforming to this EOI/ RDSO/ ICF specification requirements for equipment in Bidder's scope. BHEL's decision regarding shortlisting of Bidders shall be final and binding.

Qualified bidders shall submit their price bids as detailed under Cl. 5.0 of the EOI.

**2. Evaluated price:**

Bidder shall provide filled in Price Schedule as per Appendix to Annexure-4 during the submission of Stage II (Part III) Bid as referred under Cl. 5.0 of EOI.

The price quoted under price schedule shall be considered for evaluation as below:

Sl. No.	Item Description	Total Quoted Price
1.	Main Equipment Supply For TWO Prototype Rakes Supply	Sub Total A of Price Schedule
2.	One Set Spares, Tools & Tackles Price	Sub Total B of Price Schedule
3.	One Set Services	Sub Total C of Price Schedule
4.	Responsibility and Support activities	Sub Total D of Price Schedule
5.	<b>Total</b>	<b>A+B+C+D</b>

Public Procurement Policy for Preference to Make in India is applicable. Refer Cl. 15/ Commercial terms regarding the same.

Total price as per Sl. No. 5 of above is tabulated bidder wise and ranked from lowest (L1) to highest (H1) after applying loading factors as applicable. Further refer Cl. 1/ Commercial terms regarding Customer-BHEL-Supplier Back-To-Back Arrangements/Commitments



**COMMERCIAL TERMS**

Sl. No	Commercial Term	Bidder Response
1.	Customer-BHEL-Supplier Back-To-Back Arrangements/Commitments:	
2.	Delivery Period	
3.	Delivery Terms (in case of Bidder's supply)	
4.	Earnest Money Deposit (EMD)	
5.	Performance Bank Guarantee	
6.	Inspection	
7.	Validity of the offer	
8.	Warranty	
9.	Payment Terms	
10.	Price Variation Clause	
11.	Delivery Period Extension and Liquidated Damages	
12.	Liquidated Damages for failure in warranty:	
13.	Indemnity	
14.	Restrictions of Procurement	
15.	Public Procurement Policy For Preference To Make In India	
16.	Training of IR/ BHEL Personnel	
17.	Deviations	
18.	Statutory Variation	

## **1. CUSTOMER-BHEL-PARTNER/SUPPLIER BACK-TO-BACK ARRANGEMENTS & COMMITMENTS:**

1. L1 bidder shall be selected as per the evaluation criteria specified in the EOI
2. Negotiations (with L1 bidder) may be conducted and a MoU is entered with the selected partner.
3. Split ordering is applicable for the Indian Railways package tender. The scope/ BOQ/ responsibilities split shall accordingly be applicable based on the order quantity from IR. Further refer Price Schedule for the quantity of items applicable for the pre-bid partnership under this EOI.
4. The MOU shall be valid for a period of 01 year, with the stipulation that in the event of price-reduction during negotiation by BHEL with the customer, corresponding reduction will be passed to the pre-bid partner.
5. Within 30 days of signing the MOU, 1% of the value of MOU shall be provided by contractor to BHEL as bid bond in the form of bank guarantee /security deposit etc. in order to ensure the supplier's continued commitment during the validity period of the MOU.
6. MOU may be converted into purchase order on receiving the order from customer, without going through the tender procedure. 10% Warranty bank guarantee shall be provided by partner I accordance with Cl. 9/ payment terms.

## **2. DELIVERY PERIOD:**

Time is the essence of the Contract. The entire work relating the design, supply and supervision of erection, testing and commissioning of equipment on 56 motor coaches (MC) for Kolkata Metro shall be completed as per time schedule of Indian Railways given below. The work on the two prototype Kolkata Metro rakes each comprising of 8 motor coaches, 4 driving trailer coaches and 4 trailer coaches shall be completed as per Indian Railways schedule and put on service trials.

The equipment for remaining motor and trailer coaches on rake basis shall be supplied after successful prototype trials. The work shall be generally completed as per the Indian Railways milestone plan:

<b>Delivery schedule in months</b>			
<b>Sr. No.</b>	<b>Activity</b>	<b>Time for activities</b>	<b>Cumulative time</b>
1.	Date of signing of contract or 30 days from date of notification of award whichever is earlier	<b>D</b>	<b>D</b>
2.	Submission of OGA (Overall General Arrangement) drawings and schematics by the firm to ICF/RDSO.	<b>1</b>	<b>D+1</b>
3.	Approval of OGA drawings by ICF		
	(i). <b>No change in design</b>	<b>1</b>	<b>D+2</b>
	(ii). <b>Changed design</b>	<b>2</b>	<b>D+3</b>
4	Submission of schematics, design documents of propulsion equipment by the firm to RDSO/ICF		
	(i). <b>No change in design</b>	<b>1</b>	<b>D+3</b>
	(ii). <b>Changed design</b>	<b>2</b>	<b>D+5</b>

5	Approval of schematics, design documents of propulsion equipment by RDSO/ ICF		
	(i). <b>No change in design</b>	<b>1</b>	<b>D+4</b>
	(ii). <b>Changed design</b>	<b>2</b>	<b>D+7</b>
6	Witnessing of Type tests of propulsion equipment ( <b>applicable for changed design only</b> )	<b>3</b>	<b>D+10</b>
7	Approval of Type tests of propulsion equipment ( <b>applicable for changed design only</b> )	<b>1</b>	<b>D+11</b>
8	Witnessing of Routine tests by RDSO/ICF/RITES:		
	(i). <b>No change in design</b>	<b>2</b>	<b>D+6</b>
	(ii). <b>Changed design</b>	<b>2</b>	<b>D+13</b>
9	Approval of Routine tests by RDSO/ICF/RITES:		
	(i). <b>No change in design</b>	<b>1</b>	<b>D+7</b>
	(ii). <b>Changed design</b>	<b>2</b>	<b>D+15</b>
10	(i). Supply of propulsion equipment <b>in case of no change in design</b>	<b>1</b>	<b>D+8</b>
	(ii). Supply of propulsion equipment for prototype rakes <b>in case of new design.</b>	<b>1</b>	<b>D+16</b>
11	Installation and commissioning of prototype rakes at ICF in case of <b>new design</b>	<b>3</b>	<b>D+19</b>
12	Static/dynamic trials and Oscillation trials in the user Railway-witness by RDSO/ICF in case of <b>new design.</b>	<b>3</b>	<b>D+22</b>
13	Introduction of prototype rakes into commercial service in case of <b>new design.</b>	<b>2</b>	<b>D+24</b>

**Note:**

1. For suppliers offering new design, series production shall commence after the successful completion of all tests and trials & RDSO clearance and service trials for four months.
2. Supply of series equipment with or without change in design shall be @ 4-5 rakes per month.
3. No of prototype rakes shall be two rakes of 8 car.
4. Special tools and essential spares are to be supplied to the ICF as per the contract within two months after the completion of the supply of main equipment for all the rakes.

**The detailed time schedule of works/ activities with selected Partner shall be mutually finalized so as to meet Indian Railways Delivery Schedule and terms. Any change in delivery schedule as instructed by Indian railways shall be mutually complied.**

3. **DELIVERY TERMS:** Door Delivery to BHEL Electronics Division/Ex-Works for all applicable equipment including prototype. Transit insurance shall be within the scope of vendor
4. **EARNEST MONEY DEPOSIT (EMD): Refer Cl. 1/ Annexure - 5**
5. **WARRANTY BANK GUARANTEE: Refer Cl. 9/ Annexure - 5**
6. **INSPECTION:** By BHEL/RDSO/RITES/ICF as applicable.

**7. VALIDITY OF THE OFFER:** 180 Calendar days from the date of opening of Stage II (Part III Price Bid)

**8. WARRANTY:**

*The warranty terms shall be applicable back to back in line with Indian Railways Tender Specification requirement as detailed below for the scope of pre bid partner in accordance with Cl. 3.2 and 4.0 of EOI.*

**General:** Contractor shall warrant that every equipment supplied is free from defects and faults in design, material, workmanship and manufacture and shall be of highest grade and consistent with the established and generally accepted standards for goods of the type ordered. The bidder shall provide Comprehensive warranty of 36 months from the date of delivery or 24 months from the date of commissioning of the Kolkata Metro rakes whichever is earlier. To this effect, the B.G as mentioned in clause 13.1(i& ii)-payment terms under part-II (section-I - 'Special Conditions to tenders') will be taken as security.

**Notice of defects:** If any defect appears or damage occurs, the Purchaser or his authorized representative shall immediately notify the Contractor and shall confirm such notification of defects in writing.

**Action:** The Contractor shall immediately on receipt of the above referred notice depute his Engineer to start action for rectification of defects under warranty.

**Repair/replacement:** The contractor's liability in respect of any complaints, defects and/or claims shall be limited to the replacement/repair of defective part only to the extent that such replacement or repairs are attributable from faulty workmanship or material or design in the manufacture of the stores, provided that defects are brought to the notice of the contractor according to clause 16.1 above during the warranty period. The Contractor shall be responsible for all defects except those arising out of faulty operation or maintenance or normal wear and tear.

The contractor shall, if required, replace or repair the stores or such portion thereof as rejected by the purchaser free of charge at the ultimate destination. The custom duties and clearance charges will be to the Contractor's account. If re-export is required, it will be done by the Contractor at his cost.

In order to avoid the Motor/Driving car being out of operation for unduly long periods, the Purchaser may allow the Contractor to use the spare parts available with the consignee. The Contractor commits himself to replace these borrowed parts within a reasonable time period not exceeding 60 days.

If the contractor so desires, the replaced parts can be taken over by him or his representative in India or disposed as he deems fit at the time of replacement of stores/parts. No claim whatsoever shall lie on the purchaser for the replaced parts thereafter. The purchaser shall extend all necessary and timely assistance by way of issue of any certificate or documents required to re-export the replaced parts if so desired by the contractor.

The warranty herein contained shall not apply to any material which shall have been repaired or altered by the purchaser or on his behalf in any way without the consent of the Contractor, so as to affect the strength, performance or reliability or defects caused to any part due to misuse, negligence or Accident.

All replacement and repairs that the purchaser shall call upon the Contractor to deliver or perform

under this warranty shall be delivered and performed by the Contractor within 3 months promptly and satisfactorily, by borrowing, if necessary, the components from the Consignee. The Contractor shall replace the borrowed components free of charge within a reasonable period of time not exceeding 60 days.

Prompt clearance of the warranty replacement on arrival at Port/Airport shall be the responsibility of the contractor or his representatives after payment of Customs and other duties as applicable".

The decision of the Purchaser in regard to contractor's liability and the amount, if any, payable under this warranty shall be final and conclusive.

#### **9. PAYMENT TERMS:**

*The payment terms shall be applicable back to back in line with Indian Railways Tender Specification requirement as detailed below for the scope of pre bid partner in accordance with Cl. 3.2 and 4.0 of EOI. The payment to selected partner shall be made within 2 weeks of receipt of payment by BHEL from Indian Railways.*

#### **FOR EQUIPMENTS:**

(i) For Equipments of the prototype rakes (02 rakes) – Sl. No. A Sub Total/ Price Schedule (Appendix to Annexure-4):

(a). 80% of the total value of the equipment shall be paid against submission of the following documents. The payment is to be released for complete rake set and not for part supplies. The documents required for claiming 80% payment are as under:

1. Proof of receipt of material at ICF i.e. Receipted Challan duly signed by a nominated Gazetted Officer.
2. Inspection Certificate (in Original) issued by the Inspecting Officer
3. One (1) original & three (3) copies of Contractor's invoice.
4. Contractor's certificate that the materials in the invoice are for full rake set &
5. Contractor's certificate that the amounts claimed in the invoice are correct in terms of the contract
6. RDSO certificate for technical clearance of prototype.

(b). Balance 20% of the total value of the equipment shall be paid after successful commissioning along with 100% value of supervision of installation and commissioning charges. The commissioning Certificate shall be issued by the Principal Chief Electrical Engineer/Integral Coach Factory, Chennai. The payment shall be subject to submission of the following documents: -

1. One (1) original & three (3) copies of Contractor's invoice for balance 20%.
2. Commissioning Certificate issued after successful commissioning. Commissioning Certificate shall be issued by the Principal Chief Electrical Engineer/ICF.
3. Warranty Bank Guarantee equivalent to 10% value of the equipment
4. Contractor's certificate that the amounts claimed in the invoice are correct in terms of the contract.
5. Acceptance note/Receipt note issued by the consignee.

6.RDSO certificate for successful trial run.

(ii) For the equipment of the balance rakes - Sl. No. B Sub Total/ Price Schedule (Appendix to Annexure-4):

(a). 80% of the total value of the equipment shall be released against proof of inspection and receipt of material against following documents: -

- 1.Proof of receipt at ICF i.e. Receipted Challan duly signed by a nominated Gazetted Officer.
- 2.Inspection Certificate (in Original) issued by Inspecting Officer.
- 3.Contractor's certificate that the amounts claimed in the invoice are correct in terms of the contract.
- 4.One (1) original & three (3) copies of Contractor's invoice.
- 5.Contractor's certificate that the materials in the invoice are for full rake set.

(b). Balance 20% of the total value of equipment shall be released after successful commissioning along with 100% value of supervision of installation and commissioning charges. Commissioning Certificate shall be issued by Principal Chief Electrical Engineer (PCEE) /Integral Coach Factory, Chennai against submission of following documents: -

- 1.One (1) original & three (3) copies of Contractor's invoice.
- 2.Warranty Bank Guarantee for 10% value of the equipments.
- 3.Contractor's certificate that the amounts claimed in the invoice are correct in terms of the contract.
- 4.Certificate regarding receipt of equipment by ICF
- 5.Commissioning Certificate issued by Consignee (Acceptance note/Receipt note issued by the consignee) Principal Chief Electrical Engineer (PCEE) /ICF as above.

NOTE: All payments are to be released for complete rakes and not for part supplies.

**For items of Spares & Tools and Special Tools & Instruments and other items not forming part of Rake Set:**

(a). 90% Payment for items of Spares & Tools shall be made against following documents: -

1. Delivery Challan duly signed by a nominated Gazetted Railway officer.
2. Inspection Certificate (in Original) issued by Inspecting Officer.
3. One (1) original & three (3) copies of Contractor's invoice.
4. Contractor's Certificate that the amount claimed in the invoice are correct in terms of the contract.

(b). Balance 10% payment shall be made on receipt and acceptance of the items and on submission of Warranty Bank Guarantee for 10% value of the spares and tools and special tools and instruments.

**Payment for Training:**

Payment for the cost of training shall be released after successful completion of every 50 man days training on submission of relevant documents.

## **10. PRICE VARIATION CLAUSE:**

The prices as given are subject to PVC. The base date for calculation purpose shall be considered as two months prior to date of tender opening of tender by client Indian Railways. The indices used will be as per IEEMA wherever applicable.

The formula and indices as applicable on base date are as below:

### **1 AC/DC Rotating Machinery**

$$P = P_o / 100 (16 + 24(C/C_o) + 20(S/S_o) + 7(IS/I_s_o) + 8(PV/PV_o) + 25(W/W_o))$$

### **2 Power electronics products including converters**

$$P = P_o / 100 (16 + 26(C/C_o) + 13(Al/Al_o) + 9(IM/IM_o) + 18(FE/FE_o) + 18(W/W_o))$$

### **3. Switch gear and Control gear**

$$P = P_o / 100 [19 + 17(IS/ISO) + 17(C/C_o) + 13(Al/Al_o) + 19(In/In_o) + 15(W/W_o)]$$

P - Price Payable as adjusted in accordance with the above formula

P<sub>o</sub> - Price quoted / confirmed.

C - Price of LME settlement price of copper wire bar

S - Price of Electrical Steel sheets

IS - Wholesale price index of Iron & Steel

PV - Wholesale price index of Paints, Varnishes and Lacquers

W - Average Consumer Price Index

Al - Price of bus bar grade Aluminium

IM - Price of Insulating Material

FE - Iron, & Ferro alloy index

IS - Whole sale price index of Iron & steel

In - IEEMA Index for Insulator

Various equipment shall be classified under AC/DC Rotating Machinery, Power electronics products including converters and Switch gear and Control Gear as per categorisation of Indian Railways.

Rates published by IEEMA as prevailing on the first working day by the calendar month covering the date, 3 months prior to the date of delivery shall be applicable.

## **11. DELIVERY PERIOD EXTENSION AND LIQUIDATED DAMAGES:**

**Liquidated Damages are applicable for the contract. Indian Railways Conditions for Delivery Period Extension and Liquidated Damages are as detailed below. The same shall be applicable back to back to selected partner as per delay for respective scope.**

“The time and the date specified in the contract for the delivery of the stores shall be the essence of the contract and the delivery must be completed not later than the date so specified. The delivery period shall be reckoned from the date of issue of Advance PO/Letter of Advance Acceptance/ Letter of Acceptance. In case the delivery date falls on a gazetted holiday or is subsequently declared as such,

the purchase order will be deemed to be re-fixed up to the next working date. In such cases, modification advise for extension of delivery period will not be issued.

However, extension of delivery period may be considered in deserving cases where genuine reasons exist. Such extensions of delivery period may be considered with liquidated damages as per IRS Conditions of Contract and denial clause. Accordingly, Railway shall recover from the contractor as agreed Liquidated Damages and not by way of penalty, a sum equivalent to 1/2% (half percent) of the price of any stores (including elements of taxes, duties, freight, etc.) which the contractor has failed to deliver within the period fixed for delivery in the contract or as extended for each week or part of a week during which the delivery of such stores may be in arrears where delivery thereof is accepted after expiry of the aforesaid period, subject to a maximum of 10% (ten percent) of the value of the delayed supplies unless otherwise provided specifically in the contract.

In the cases where supply is made in the extended period of D.P. (with or without LD), Price Variation (PV) as applicable on the terminal date of the original D.P shall be payable unless price has decreased after the terminal date of the original delivery period, in which case, the decreased rate will be applicable.

In the cases where supply is made in the extended period of D.P. (with or without LD), the following Denial Clauses are applicable:

- No increase in price on account of any statutory increase in or fresh imposition of tax & duty or on account of any other tax or duty leviable in respect of the stores specified in the Contract which takes place after the date of the delivery period originally stipulated in the contract shall be admissible on such of the said store as are delivered after the date of the delivery originally stipulated in the contract.
- Notwithstanding any stipulation in the contract for increase, in price on any other ground no such increase which takes place after the date of the delivery originally stipulated in the Contract shall be admissible on such of the said stores as are delivered after the expiry of the delivery period originally stipulated in the Contract.
- Nevertheless, the purchaser shall be entitled to the benefit of any decrease in price on account of reduction in or remission of tax & duty or on account of any other tax or duty or on any other ground as stipulated in the price variation clause, which takes place after the expiry of the date of delivery originally stipulated in the Contract.”

## **12. LIQUIDATED DAMAGES FOR FAILURE IN WARRANTY:**

**Liquidated Damages are applicable for the contract. Indian Railways Conditions for Liquidated Damages for failure in warranty are as detailed below. The same shall be applicable back to back to selected partner for agreed scope.**

### **Equipment:**

Supplier shall be liable to pay the Liquidated Damages as per the conditions laid in this clause and sub-clauses. The Liquidated Damage, under this clause, shall be applicable not only during warranty period but also during the service period of 4 months from date of completion of field/service trials of two



rakes of Kolkata Metro from the date of commencement of supply of series supply of rakes. The provisions of Clause 1 shall cease to be effective once the failure of equipment is categorized as type defect in accordance with the 2. Under these conditions, the liquidated damage shall be governed by the Clause 2 (iii) only, as under.

1. Liquidated Damages against Down Time for supplied Equipments: -

- (i) All replacement and repairs that the purchaser shall call upon the supplier to deliver or perform under this warranty shall be delivered and performed by the supplier within 30 days promptly and satisfactorily, by borrowing, if necessary, the components from the spares as may be available with the purchaser.
- (ii) However, the supplier shall also maintain their own bank of spares at the places, to be decided mutually with the purchaser, to ensure timely replacement/repairs of defective equipment under warranty obligations.
- (iii) In case, any coach is rendered unserviceable due to failure of supplied equipment under warranty for more than 15 days due to non availability of replacement/warranty spares or any other reason covered under warranty obligations, the supplier shall be liable to pay a Liquidated Damages of 0.015% of the contract value per two weeks equivalent to contract value of equipment applied to each basic unit for the entire down time period from Day one. The Liquidated Damages shall be levied for every 1 week or part thereof beyond 15 days subject to the maximum of 2% of total contract value of equipment applied to each basic unit during the warranty period. The Kolkata Metro coach shall be considered “unserviceable” from the time it is declared unfit for normal service till it is certified fit for traffic use.
- (iv) Any spare part borrowed from the Purchase shall be replaced within 2 months failing which a Liquidated Damage as would have been applicable for the down time of a basic unit shall be applicable.

2. Liquidated Damages due to Type Defect for Equipments:-

- (i) The assessment of type defect of equipment, defined as at (ii) under, shall be made only after the date of completion of the supply of at least 20% of the total equipment sets as per the Schedule of requirements.
- (ii) Type defect- Failure of major equipment viz. transformer, power & auxiliary converter-inverter, traction motor, auxiliary machines, electronics, and pantograph, within the warranty obligations, shall be considered a “type defect”, if the Failure Rate Percentage per equipment per year as calculated on the basis
- (iii) The assessment of type defect of equipment, defined as at (ii) under, shall be made only after the date of completion of the supply of at least 20% of the total equipment sets as per the Schedule of requirements.
- (iv) Type defect- Failure of major equipment viz. transformer, power & auxiliary converter-inverter, traction motor, auxiliary machines, electronics, and pantograph, within the warranty obligations, shall be considered a “type defect”, if the Failure Rate Percentage per equipment per year as calculated on the basis of actual population of the equipment in service and for a period of every 3 months, starting from date of completion of the

supply of first 20% equipment sets, as per (i) above, is more than 10%. In the event of a defect of an equipment being categorized as “Type Defect”, the supplier shall essentially review the design of the equipment on the basis of failure investigations and shall carry out mutually agreed modifications on all equipment irrespective of the lapse of their warranty period. The replaced/modified equipment shall qualify for the warranty obligations.

- (v) In case of type defect, if the hourly availability of the Train sets fitted with supplied equipment goes down by 5% (due to reasons attributable to the supplier viz., design, manufacturing, quality control and materials, etc) of the total rakes fitted with supplied equipment, for every additional rake becoming unserviceable, the supplier shall be liable to pay liquidated damage of 0.5% of the contract value of one Kolkata Metro rake equipment set for every fortnight or part thereof subject to the maximum 5% of the total contract value of one 8 Car rake equipment set. The Purchaser/IR shall promptly notify the Supplier about a particular defect being classified as a type defect.

### **13. TAXES & DUTIES:**

Bidder shall appraise themselves applicable Taxes & Duties prevailing in India. Quoted price by bidder shall include all applicable taxes and the same to be indicated in accordance with price schedule.

### **14. INDEMNITY:**

Bidder shall have the right to bid for the EOI and are not infringing any patent, registered design, copy right, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the scope of the work under this tender. Bidder shall be liable to the purchaser for any infringement of the same and indemnify the purchaser against all actions, claims, loss and damages and costs (including legal costs) arising from, or claimed by any third party in relation to such infringement.

### **15. RESTRICTIONS OF PROCUREMENT:**

Restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries as per Public Procurement order issued by Ministry of Finance OM No. F.No. 6/18/2019-PPD dated 23.07.2020, Public Procurement order no. 1 & 2 vide letter. no. F.No.6/18/2019-PPD dated 23.07.2020 and Public Procurement order no. 3 vide letter.no. F.No.6/18/2019-PPD dated 24.07.2020 forwarded by Rly. Bd. Letter No. 2020/RS(G)/779/2 dated 06.08.2020. RB letter no. 2020/RS(L)/779/2 dated 19.03.2021 and RB letter no. 2020/RS(G)/779/2 – Part-I dated. 17.05.2021 shall apply.

Bidder shall not be from such a country or, if from such a country, shall have been registered with the Competent Authority and will not outsource any item to a sub-vendor from such countries unless such sub-vendors are registered with the competent authority. Where applicable, evidence of valid registration by the Competent Authority shall be provided.

### **16. PUBLIC PROCUREMENT POLICY FOR PREFERENCE TO MAKE IN INDIA**

1. The Government has issued Public Procurement (Preference to Make in India), Order 2017 laying down the policy to encourage 'Make in India' and promote manufacturing and production of goods and services in India. The salient features of the aforesaid Order are as under:
  - a. For the purpose of this Order, the definitions are as under:
    - i. 'Local content' means the amount of value added in India which shall, unless otherwise prescribed in the special conditions, 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. Local content can be increased through partnerships, cooperation with local companies, establishing production units in India or Joint Ventures (JV) with Indian suppliers, increasing the participation of local employees in services and training them.
    - ii. Classification:
      1. 'Class –I local Supplier' means a supplier or service provider whose goods, services or works offered for procurement meets the minimum local content of 50%.
      2. 'Class –II local Supplier' means a supplier or service provider whose goods, services or works offered for procurement meets the minimum local content of 20%.
      3. 'Non local Supplier' means a supplier or service provider whose goods, services or works offered for procurement has local content less than that prescribed for 'Class –II local Supplier'.
    - iii. 'L1' means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.
    - iv. 'Margin of purchase preference' means the maximum extent to which the price quoted by a "class-I local supplier" may be above the L1 for the purpose of purchase preference which is 20%. However, it will be taken as per the status of the policy reckoned as on the date of tender opening.
  - b. The 'Class-I local supplier/Class-II local supplier' at the time of tender shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier/Class-II local supplier', as the case may be. They shall also give details of the locations(s) at which the local value addition is made.
  - c. In cases of procurement for a value in excess of Rs. 10 Crore, 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 practising cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content in the prescribed format as per Annexure VI.
  - d. The certificates mentioned as above, as the case may be has to be submitted in the prescribed format only along with the offer. Failure of submission of the certificates

along with the offer may render the offer deprived of the benefits provided under this order. It will be presumed that the tenderer has no claim for Purchase Preference under “Make in India” Policy etc.

- e. False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules issued by the Ministry of Finance for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law. Supplier who has been debarred by any procuring entity for violation of this Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of the 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.
- f. Purchase preference:
  - i. Subject to the provisions of this order and to any specific instructions issued by Indian Railways or in pursuance of this order, purchase preference shall be given to ‘Class –I local supplier’ in all procurements undertaken by procuring entities in the manner specified hereunder:
    - 1. In procurement of goods or works, which are covered above and which are not divisible in nature and in procurement of services where the bid is evaluated on price alone, the ‘class-I local supplier’ shall get purchase preference over ‘Class-II local supplier’ as well as ‘Non-local supplier’, as per following procedure:
      - a. Among all qualified bids, the lowest bid will be termed as L1. If L1 is ‘Class-I local supplier’, the contract for full quantity will be awarded to L1.
      - b. If L1 is not from a ‘Class-I local supplier’, the lowest bidder among the ‘class-I local suppliers’ will be invited to match the L1 price subject to ‘Class-I local supplier’s’ quoted price falling within the margin of purchase preference (%), and the contract shall be awarded to such ‘Class-I local supplier’ subject to matching the L1 price.
      - c. In case lowest eligible ‘Class-I local supplier’ fails to match the L1 price, the ‘Class-I local supplier’ with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the ‘Class-I local suppliers’ within the margin of purchase preference matches the L1 price, then the contract may be awarded to the L1 bidder.
      - d. ‘Class-II local suppliers’ will not get any purchase preference in any procurement undertaken by procuring entity.

## **17. TRAINING OF BHEL/ IR PERSONNEL**

The bidder shall consider training in design maintenance and operation for BHEL for minimum 100 working man days at BHEL/ Bidder/ ICF/ Other railway works.

The training shall cover the equipment under the scope of bidder and shall be broadly for the following areas:

1. Technical, Engineering and Design
2. Manufacturing, Process engineering, Quality assurance system, Quality plans, Inspection
3. Project Management
4. Project logistics, procurement, information on Sources / Makes
5. Operation of the equipment
6. Maintenance and preventive maintenance practice.

## **18. STATUTORY VARIATION**

Statutory Variation in taxes and duties, or fresh imposition of taxes and duties by State/ Central Governments in respect of the items stipulated in the contract (and not the raw materials thereof), within the original delivery period stipulated in the contract, or last unconditionally extended delivery period shall be applicable after the submission of bid.

**Certificate of Local Content for Availing “Make in India” Preference****Tender No.:****Opening Date:****Item Description:**

I/We have examined the information, records and books of Accounts presented before me/us by our client(s) (Name and complete address of the company) and certify that the local content, which is the amount of value added in India (i.e. the total value of the item procured excluding net domestic Indirect taxes, minus the value of the imported content, if any, of the above mentioned item including all custom duties), as a proportion of the total value, in percent is (percentage of local content)

We understand that this certificate is being produced by our client named above, for the purpose of availing purchase preference under Public Procurement (Preference to Make in India), Order 2017, in the above mentioned tender. We are aware that any false declarations in this respect will be in breach of the Code of integrity under Rule 175(1) (i) (h) of the General Financial Rule for which our client or its successors can be debarred for up to two years as per 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

I/We are also aware that I/We am/are liable to be taken up under Section 22 of the Chartered Accountants Act, 1949 along with such other actions as may be permissible under the Company and other relevant laws, in case of any false/incorrect certification of local content mentioned as above, by us.

Date:

(Seal &amp; Signature of the Auditor/Cost Accountant)