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सत्यमेव जयते  
Ministry of Defence  
Government of India

**REQUEST FOR PROPOSAL**

**BY**

**MINISTRY OF DEFENCE**

**GOVERNMENT OF INDIA**

**FOR PROCUREMENT OF QUANTITY ONE HUNDRED AND THIRTEEN (113) BUSES (ELECTRIC) ALONGWITH QUANTITY FORTY-THREE (43) FAST CHARGERS**

**CATEGORY: BUY (INDIAN-IDDM)**

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The contents of this RFP must not be disclosed to unauthorised persons and must be used only for the purpose of submission of Bids.

**This document contains 107 pages including cover page and Appendices.**

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File No: **75961/GS/CD/RFP Cell  
 /Bus (Electric)**

Additional Director General  
 Acquisition Technical (Army)  
 New Delhi-110011

08 Dec 2022

To

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**REQUEST FOR TECHNICAL AND COMMERCIAL PROPOSAL FOR PROCUREMENT OF  
 QUANTITY ONE HUNDRED AND THIRTEEN (113) BUSES (ELECTRIC) ALONGWITH  
 QUANTITY FORTY-THREE (43) FAST CHARGERS  
 CATEGORY: BUY (INDIAN-IDDMM)**

Dear Sir/Madam,

1. The Ministry of Defence, Government of India, intends to procure Quantity 113 (Indian Army- 60 and Indian Air Force- 46 & Indian Navy- 07) Buses (Electric) alongwith Quantity 43 Fast Chargers (Indian Army- 24 and Indian Air Force- 15 & Indian Navy- 04) under 'Buy (Indian-IDDMM)' category with minimum 50% Indigenous content and seeks participation in the procurement process from prospective Bidders subject to requirements in succeeding paragraphs.

**Synopsis**

2. **Broad Description of Equipment/System.** Buses are authorized to formations/ units of the Indian Army, Indian Air Force and Indian Navy, to provide requisite mobility in terrains as prevalent in the country. The present fleet of Buses are based on the Internal Combustion Engine (ICE) technology which is dependent on fossil fuels and leads to Carbon Emissions & resultant pollution. To keep up with futuristic trends and in support of initiatives of Government of India to achieve Net Zero Carbon Emission, there is need for introduction of Electric Vehicles in the vehicle fleet of Indian Army, Indian Air Force and Indian Navy. Presently, No Buses (Electric) are held with Services as on date.

3. The salient aspects and timelines of the acquisition are tabulated below. In case of any variation in the details furnished below or in any Annexures(s) with that mentioned in the RFP, information furnished in the main body of the RFP at referred Paragraph is to be followed.

<b>Ser No.</b>	<b>Description</b>	<b>Details</b>	<b>Reference Para of the RFP</b>
(a)	Equipment/System required	Bus (Electric) alongwith Fast Chargers	Para 1 of covering letter of RFP

Ser No.	Description	Details	Reference Para of the RFP
(b)	Quantity Required	<b>Quantity 113 Bus (Electric)</b> (Indian Army- 60 and Indian Air Force- 46 & Indian Navy- 07) alongwith <b>Quantity 43 Fast Chargers</b> (Indian Army- 24 and Indian Air Force- 15 & Indian Navy- 04)	Para 1 of covering letter of RFP
(c)	Categorisation of Procurement	Buy (Indian-IDDM)	Para 1 of covering letter of RFP
(d)	Minimum IC Content required	≥ 50%	Para 7 of RFP
(e)	Place(s) of Delivery	CVD Delhi Cantonment, COD Dehu Road, 41 Vehicle Company Guwahati, OD Avadi, OD Allahabad, Vehicle Depot Panagarh, Material Organisation Mumbai, Material Organisation Visakhapatnam, Material Organisation Kochi.	Para 1.1.1 of Appendix H
(f)	Warranty Period	24 Months	Para 11 and Appendix C
(g)	EMD Amount	₹ 70 Lakhs	Para 20 and Annexure I to Appendix K
(h)	Last date for submission of Pre-bid queries	29 December 2022 (Thursday)	Para 22
(i)	Date and time for Pre-bid meeting	19 January 2023 (Thursday)	Para 23
(k)	Last date and time for Bid Submission	By 1400hr, 02 March 2023 (Thursday)	Para 24

4. **Special features of the RFP.** The procurement case is processed under Buy (Indian-IDDM) category as per Para 8 of Chapter I of DAP-2020. Field Evaluation Trials of the Equipment to be carried out on 'No Cost No Commitment' basis iaw Para 65 and 66 of

Chapter II of DAP 2020. The **Fast Chargers will be installed by the OEM/ Seller at Buyer** nominated locations. The procurement is carried out by **Open Tender Enquiry**, with preference being given to MSMEs, provided there are atleast two or more MSMEs eligible to participate in the category iaw Para 23 of Chapter II of DAP 2020.

5. This Request for Proposal (RFP) consists of following four parts: -

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(a)	Part I – General Requirements	7-12
(b)	Part II - Technical Requirements	13-16
(c)	Part III – Commercial Requirements	17
(d)	Part IV – Bid Evaluation and Acceptance Criteria	18

6. The Government of India invites responses to this request only from Original Equipment Manufacturers (OEM) or Authorised Vendors or Government Sponsored Export Agencies (applicable in the case of countries where domestic laws do not permit direct export by OEM) subject to the condition that in cases where the same equipment is offered by more than one of the aforementioned parties, preference would be given to the OEM.

7. The end user of the equipment is the **Indian Armed Forces**.

8. This RFP is being issued with no financial commitment; and the Ministry of Defence reserves the right to withdraw the RFP and change or vary any part thereof or foreclose the procurement case at any stage. The Government of India also reserves the right to disqualify any Bidder should it be so necessary at any stage on grounds of National Security.

9. In addition to various Appendices and their Annexures, attached with this RFP, reference to various paragraphs of DAP-2020 has been made in the RFP. The DAP -2020 is an open domain document that is available at Gol, MoD website [www.mod.nic.in](http://www.mod.nic.in).

Yours faithfully

Sd-x-x-x-x-x-x  
**(S Hariharan)**  
**Col**  
**Director 'G'**  
**O/o ADG Acq Tech (Army)**

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**Disclaimer**

This RFP is neither an agreement and nor an offer by the MoD to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in submitting their proposals pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the MoD in relation to the Project. This RFP document and any assumptions, assessments and statements made herein do not purport to contain all the information that each Bidder may require. The Bidder shall bear all its costs associated with or relating to the preparation and submission of proposal pursuant to this RFP. Wherever necessary, MoD reserves the right to amend or supplement the information, assessment or assumptions contained in this RFP. The MoD reserves the right to withdraw the RFP or foreclose the procurement case at any stage. The issuance of this RFP does not imply that the MoD is bound to shortlist a Bidder for the Project. The MoD also reserves the right to disqualify any Bidder should it be so necessary at any stage on grounds of National Security.

RFP as on 08 Dec 2017

## **PART I – GENERAL REQUIREMENTS**

1. This part consists of the general requirement of the Goods (also referred as equipment/systems/deliverables) and Services, hereafter collectively referred as 'Deliverables', the numbers required, the time frame for deliveries, conditions of usage and maintenance, requirement for training, Engineering Support Package (ESP) and warranty/guarantee conditions, etc. It includes the procedure and the date & time for submission of bids.

### **Non-Disclosure**

2. The Bidding documents, including this RFP and all attached documents provided by the MoD, are and shall remain or become the property of the MoD. These are transmitted to the Bidders solely for the purpose of preparation and the submission of a proposal in accordance herewith. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their proposal. The provisions of this Para shall also apply mutatis mutandis to Bids and all other documents submitted by the Bidders, and the MoD will not return to the Bidders any proposal, document or any information provided along therewith (except unopened Commercial Bid and **EMD** as relevant).

3. Information relating to the examination, clarification, evaluation and recommendation for the Bidders shall not be disclosed to any person who is not officially concerned with the process, or concerning the Bidding Process. The MoD will treat all information, submitted as part of the Bid, in confidence and will require all those who have access to such material to treat the same in confidence. MoD may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or MoD or as may be required by law or in connection with any legal process.

4. **Confidentiality of Information**. No party shall disclose any information to any 'Third Party' concerning the matters under this RFP generally. In particular, any information identified as 'Proprietary' in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party. This clause shall apply to the sub-contractors, consultants, advisors or the employees engaged by a party with equal force.

### **Business Eligibility**

5(a). **Undertaking by Bidders**. The Bidder will submit an undertaking that they are currently not banned / debarred / suspended from doing business dealings with Government of India / any other government organisation and that there is no investigation going on by MoD against them. In case of ever having been banned / debarred / suspended from doing business dealings with MoD/any other government organization, in the past, the Bidder will furnish details of such ban / debarment along with copy of government letter under which this ban / debarment / suspension was lifted / revoked. The Bidder shall also declare that their sub-contractor(s)/supplier(s)/technology partner(s) are not Suspended or Debarred by

Ministry of Defence. In case the sub-contractor(s)/supplier(s)/ technology partner(s) of the Bidder are Suspended or Debarred by Ministry of Defence, the Bidder shall indicate the same with justification for participation of such sub-contractor(s)/supplier(s)/ technology partner(s) in the procurement case.

5(b). Subsequent to submission of bids if any sub-contractor(s)/supplier(s)/technology partner(s) of the Bidder is Suspended or Debarred by Ministry of Defence, the Bidder shall intimate the Ministry of Defence regarding Suspension or Debarment of its sub-contractor(s)/ supplier(s)/technology partner(s) within two weeks of such order being made public.

6. **Pre-Qualification Criteria for multi-vendor cases in Buy (Indian-IDD) cases.** The detailed Pre-Qualification criteria for the Bidders for participation in the instant procurement case are placed at **Appendix L** to this RFP. All Bidders are to submit details as per the criteria along with the Technical Bids. These would be evaluated by the TEC.

7. **Indigenous Content.** For the purposes of this RFP and the acquisition contract (if any) signed by the Ministry of Defence with a successful Bidder, indigenous content shall be as defined under **Para 8 of Chapter I** and **Para 1 of Appendix B to Chapter I** of DAP 2020. In addition, reporting requirements for prime (main) Bidder (and for sub-contractors/suppliers/technology partners reporting to higher stages/tiers) shall be as prescribed under **Para 4 to 7 of Appendix B to Chapter I** of DAP 2020. The right to verification of Bidder/ sub-contractors/suppliers/technology partners shall vest in the Ministry of Defence as prescribed under **Para 10 of Appendix B to Chapter I** of DAP 2020; and aspects of delivery, certification, payments, withholding of payments and imposition of penalties shall be as prescribed under **Para 11 to 15 of Appendix B to Chapter I** of DAP 2020 thereof. Furthermore, Bidders in 'Buy (Indian IDD)' will be required to submit their indigenisation plan in respect of indigenous content as stipulated in **Para 4 to 7 of Appendix B to Chapter I** of DAP 2020. The DAP 2020 is available at MoD, Gol website ([www.mod.nic.in](http://www.mod.nic.in)) for reference and free download.

8. **Year of Production.** Deliverables [platforms (including major equipment)/ equipment/ systems] supplied under the contract should be of latest manufacture i.e manufactured after the date of Contract with unused components/assemblies/sub-assemblies, conforming to the current production standard and should have 100% of the defined life at the time of delivery. Deviations, if any, should be clearly brought out by the Bidder in the Technical Proposal.

9. **Delivery Schedule.** The delivery schedule of main equipment and deliverables along with the relevant payment stages is specified at **Annexure V to Appendix H**. The delivery schedule of main equipment is given as below: -

Ser No	Quantity Buses (Electric) and Fast Chargers	Delivery Timeline (Months)	Remarks
(a)	51 and 43	T <sub>0</sub> to T <sub>0</sub> + 6	T <sub>0</sub> is the date of Payment of Advance
(b)	62 and Zero	T <sub>0</sub> +7 to T <sub>0</sub> +12	

10. Once the contract is concluded and the delivery schedule is established, the Bidder shall adhere to it and ensure continuity of supply of deliverables and their components under the contract.

11. **Warranty.** The deliverables supplied shall carry an onsite **warranty for Twenty-four (24) months and that of Battery Pack & Motor will not be less than 04 (four) years or 3,00,000 Kms, whichever is earlier.** Commencement of warranty will be from the date of acceptance post JRI or from date of installation and commissioning (as applicable). The cost towards all scheduled servicing during warranty period shall be borne by the Seller to include spares, labour, oils, greases and lubricants etc. Warranty Clause is given at **Appendix C** to this RFP. **The terms of warranty and OEM/ Seller Contact Details including phone number and email should be mentioned in the User Hand Book (UHB). The date from which warranty is applicable (duly endorsed by representative of both Buyer & Seller) should be mentioned in respective log book and User Hand Book of the main equipment and accessories.**

12. **In Service Life.** The In-Service Life of the **Battery Pack & Motor** will not be less than **04 (four) years or 3,00,000 Kms, whichever is earlier** and in-Service Life of the **Bus Electric** is **80000 Km or 09 years**, whichever is later. The Bidder is required to give details of reliability model, reliability prediction and its validation by designer/manufacturer to ensure reliability of stores throughout Service life. The efficacy of reliability model/ prediction/ validation would be verified during technical and environmental evaluation as indicated in **Para 37** of this RFP.

13(a). **Product Support.** The Bidder would be bound by a condition in the contract that he is in a position to provide product support in terms of maintenance, materials and spares for a period of **15 (fifteen) years** from last lot of equipment delivered. Even after the said mandatory period, the Bidder would be bound to give at least two years notice to the Government of India prior to closing the production line so as to enable a Lifetime Buy of all spares before closure of the said production line. This, however, shall not restrict the Buyer from directly sourcing sub-equipment/sub-assembly and spares from their respective OEMs/sub-vendors on completion of warranty. In case the sub-equipment/sub-assembly/parts require tuning/calibration/integration by the Bidder prior replacement, the same is to be undertaken by the Bidder at fair and reasonable cost, as mutually agreed between Buyer and Bidder. OEM/ Bidder(s) to ensure maximum possible use of oils, lubricants and greases which are indigenously available. Further, the OEM/ Bidder(s) is mandated to share the detailed specifications of oils, lubricants and greases alongwith their sources of supply and contact details of suppliers alongwith technical bid.

13(b). **Codification.** The Bidder agrees to provide existing NATO Stock Numbers (NSNs) of OEM for each item supplied under the contract as per part list (including MRLS). In case, the NSNs are not available, the bidder agrees to codify using basic technical characteristics as required for codification in consultation with MoD/ Directorate of Standardisation. In case of IPR issues, codification will be undertaken as Type IV codification (where only the manufacturer details and part number are to be provided). The codification to be completed before the completion of warranty period.

14. **Obsolescence Management Plan.** An actionable obsolescence management plan is to be proposed by the Bidder along with the mechanism for intimation of notification of obsolescence. The modalities of the mechanism for intimation of notification would be deliberated during CNC. The mutually agreed mechanism for intimation would form an integral part of the contract. All upgrades and modifications carried out on the equipment

during the next **15 years** must be intimated to SHQ, IHQ of MoD (Army), GoI as per the agreed mechanism.

15. **Training of Crew and QA Personnel.** A training package for training of operators to undertake operation and training of QA personnel for Quality Assurance of equipment would be required to be carried out in English language and Hindi language. This training shall be designed to give the operators necessary knowledge and skills to operate the equipment. The syllabus will be defined by the Bidder in consultation with the Buyer at the time of FET. All training requirements such as training aids, projection system, complete equipment with accessories/ optional, technical literature, spares, test equipment / test set up, charts, training handouts, power point presentations, Computer Based Training (CBT), Documentation, Simulators etc will be catered by the Bidder.

16. The Bidder would provide the following training to the personnel of the Buyer based on agreed terms of contract: -

Ser No	Services	Training Location	Duration (Days per batch)	No of Batch	Total No of Personnel	Remarks
<b><u>User / Operator Training</u></b>						
(a)	IA	OEM Premises	07 working days	01	26	Training to be conducted approximately one month before delivery of 1 <sup>st</sup> lot of main equipment
(b)	IAF	OEM Premises	07 working days	01	24 (12 each of IAF & IN)	
(c)	IN					
<b><u>QA personnel</u></b>						
(c)	DGQA	OEM Premises	06 Working days	01	06	Training to be conducted before commencement of PDI of main equipment

**Note.** The training to enable the user/ operators to effectively operate the equipment and its accessories in field conditions. The training should also enable QA personnel to carry out effective ATP, QA and defect investigations.

17. **Government Regulations.** It may be confirmed that there are no Government restrictions or limitations in the country of the Bidder or countries from which subcomponents are being procured and/or for the export of any part of the deliverables being supplied.

18. It may be further confirmed that all national and international obligations relevant to transfer of conventional arms of the country of the supplier or countries from which parts and components are being procured, have been taken into account for the duration of the contract. Accordingly, thereafter there would be no review, revocation or suppression of Defence export licence and other related clearance issues to the supplier for the contract that

could impinge on the continuity of supply of items and their parts or components under the contract.

19. **Patent Rights.** The Bidder should confirm that there are no infringements of any Patent Rights in accordance with the laws prevailing in their respective countries.

20. **Integrity Pact.** In the subject RFP, the Bidder is required to sign and submit Pre Contract Integrity Pact (PCIP), given at **Annexure I to Appendix K** to this RFP.

21. **Fall Clause.** If the equipment being offered by the Bidder has been supplied/contracted with any organisation, public/private in India, the details of the same may be furnished in the technical as well as commercial offers. The Bidders are required to give a written undertaking that they have not supplied/is not supplying the similar systems or subsystems at a price lower than that offered in the present bid to any other Ministry/Department of the Government of India and if the similar system has been supplied at a lower price, then the details regarding the cost, time of supply and quantities be included as part of the commercial offer. In case of non-disclosure, if it is found at any stage that the similar system or subsystem was supplied by the Bidder to any other Ministry/Department of the Government of India at a lower price, then that very price, will be applicable to the present case and with due allowance for elapsed time, the difference in the cost would be refunded to the Buyer, if the contract has already been concluded.

### **Bid Timelines**

22. Any queries/ clarifications to this RFP may be sent to this office by 29 December 2022 (Thursday). A copy of the same may also be sent to: -

**Directorate General of Supplies & Transport (DGST)  
Room No 323, A Wing, IHQ of MoD (Army)  
DHQ PO, New Delhi - 110011  
011-21410925, Fax No 011-23018963)**

23. **Pre-Bid Meeting.** A pre-bid meeting will be organised by SHQ at 1100 hrs on 19 January 2023 (Thursday) at the address given at **Para 22** above to answer any queries or clarify doubts regarding submission of proposals. The Bidder or his authorised representative is requested to attend. Necessary details may be sent a week in advance to Directorate General of Supplies & Transport (DGST), to facilitate obtaining of security clearance.

24. **Submission of Bids.** The Technical and Commercial Proposals along with IP and **EMD** should be sealed separately in three separate envelopes clearly indicating Commercial/Technical/IP and **EMD and any other Bank Guarantee** as applicable, and then put in one envelope and sealed (**all the envelopes should clearly state the letter No of RFP and the name of equipment and Bidder name**) and submitted to the undersigned at the following address by 1400 hours on 02 March 2023 (Thursday) :-

**Brig CD-1  
CD Directorate, GS Branch,  
Room No 415, A Wing  
Sena Bhawan,  
IHQ of MoD (Army)  
New Delhi-110011  
Tele & Fax: 011-23019003**

25. Offer opening by an Offer opening committee will be held at 1100hrs on 03 March 2023 (Friday) at the same venue as indicated at **Para 24** above. The Bidder or his authorised representative is welcome to be present at the opening of the proposals. Necessary details may be sent atleast one week in advance to facilitate obtaining of security clearance.

RFP as on 08 Dec 2022

## **PART II – TECHNICAL REQUIREMENTS**

26. The second part of the RFP incorporates the aspects of SQRs describing the technical parameters of the proposed equipment, and the environmental parameters for functioning. The operational characteristics and features that should be met by the equipment are elucidated at **Appendix A** to this RFP and the Compliance Table at **Appendix B** to this RFP. The Bidder would be required to offer the equipment for Field Evaluation Trials on a “No Cost No Commitment” basis in India.

27. **Operational Characteristics and Features**. The broad operational characteristics [including Essential Parameters ‘A’] and features that are to be met by the equipment are elucidated at **Appendix A** to this RFP.

28. **Technical Offer**. The Technical Offer must enable detailed understanding of the functioning and characteristics of the equipment as a whole and each sub system independently. It must include the performance parameters as listed at **Appendix A** to this RFP and any other information pertaining to the technical specifications of the equipment considered important/ relevant by the Bidder. The technical proposal should also include maintenance schedules to achieve maximum life and expected life of each assembly/subassembly (or Line Replaceable Unit (LRU)/Shop Replaceable Unit (SRU)), storage conditions/environment condition recommended and the resultant guaranteed in-service/shelf life.

29. If there is any associated optional equipment on offer that should also be indicated separately along with the benefit that are likely to accrue by procuring such optional equipment. Should the Bidder be contemplating any upgrades or modifications to the equipment being offered, the details regarding these should also be included in the Technical Proposal.

30. **Technical Details**.

(a) The technical details should be factual, comprehensive and include specifications of the offered system/equipment against broad requirements listed in **Appendix A** to this RFP.

(b) Insufficient or incomplete details may lead to rejection of the offer. Mere indication of compliance may be construed as incomplete information unless system’s specific technical details are available in the offer. A format of the compliance table for the technical parameters and other conditions of RFP is attached as **Appendix B** to this RFP.

31. The technical offer should have a separate detachable compliance table as per format given at **Appendix B** to this RFP stating specific answers to all the parameters as listed at **Appendix A** to this RFP. It is mandatory to append answers to all the parameters listed in **Appendix A** to this RFP. **Four copies of the Technical Proposal** should be submitted (along with one soft copy), however only one copy of the commercial proposal is required.

32. **Malicious Code Certificate.** The Bidder is required to submit a '**Malicious Code Certificate**' (only for Electronic items and Software) along with the Technical Proposal. The format is placed at **Appendix D** to this RFP.

33. **Field Evaluation.** The Bidder is requested to confirm his willingness to provide **one (01)** complete equipment for trial evaluation in India as per Para 65 & 66 of Chapter II of DAP 2020 on "No Cost No Commitment" basis when so requested. The Buyer, at his own expense, will depute its representatives for the Field Evaluation Trials (FETs). If any part of the FET is conducted in the Buyer's facilities, the Bidder shall depute their personnel and equipment at their own expenses and bear the cost of all expenses of trials other than the cost of ranges, platform or facilities which the Buyer may choose to provide free of cost. Testing charges (if any) to be borne by the Bidder(s).

34. **Product Support.** After induction, the equipment/system would be repaired and maintained as per the repair and maintenance philosophy at **Appendix E** to this RFP.

35. **Active Technology Obsolescence Management.** Bidder is to indicate the methodology on how the Bidder intends to undertake Active Obsolescence Management through life cycle of equipment which would include upgradation of system/ subsystem/ units on completion of its fair service life. The Bidder/OEM shall also intimate Buyer on likely technology obsolescence of various sub-assemblies/units/modules of equipment through an Annual Bulletin. In case of impending obsolescence of components, bulletin should specify either alternate item or option for life-time buy as under: -

(a) The Bidder/OEM will notify the Buyer not less than two years before the closure of its production line about the intention to close production of equipment for provision of purchasing spare parts, before closure of the said production line.

(b) Three years prior to completion of design/service life of equipment, the Bidder/OEM will submit techno-commercial proposal for upgradation of equipment, wherever applicable, to mitigate technology obsolescence and for ensuring product support for next 15 years.

### **Evaluation of Technical Offers**

36. The Technical Offer submitted by the Bidder will be evaluated by a Technical Evaluation Committee (TEC) to confirm that the equipment being offered meets the Essential Parameters as elaborated at **Appendix A**. Thereafter, the Bidder of the short listed equipment would be asked to provide **one (01)** complete **equipment** for trial evaluation as per trial methodology given at **Appendix L** to this RFP, in India at 'No Cost No Commitment' basis.

### **Field Evaluation Trials**

37. For an equipment to be introduced in service, it is mandatory that it successfully clears all stipulated tests/trials/evaluations as per RFP. The trial evaluation process comprises of the following phases: -

(a) **User Trials.** These will involve functional testing by user of the equipment in various specified conditions as per requirement and may be done in more than one

phase. Trials will be conducted only pertaining to conditions where the equipment is most likely to be deployed. In other conditions where the probability of deployment is not high, appropriate vendor certifications confirming the functional effectiveness under such conditions can be given and simulations based testing can be resorted to wherever applicable. In case, equipment fielded requires any repairs/modifications during the course of trials, these in situ servicing, repair, maintenance actions or modifications as requested by the vendor will be permitted. Towards this, Vendors shall ensure availability of requisite maintenance teams/ experts onsite during the conduct of trials. Permission for trial equipment to move out of the trial location for a defined period for such repairs or modifications can be permitted on a case to case basis. In single vendor cases permission for the above may be permitted by the OIC Trials itself.

(b) **Technical Trials.** Technical trials will be conducted by QA agency as per Technical Evaluation Plan (to be specified at **Para 39** below) to assess conformance to the quality requirements, standards and specifications. Equipment/assemblies/sub-assemblies will be subjected to environmental tests wherever applicable. As far as possible, physical evaluation will only be carried out of critical parameters and other parameters will be evaluated based on vendor certification duly supported by certification by NABL accredited laboratories/internationally recognised laboratories. Towards this, Bidder will submit the technical documentation and draft ATP as part of technical bid or at least one month before commencement of FET. QA agencies will finalise ATP in respect of all Bidders during Technical trials.

38. Commercial offers will be opened only of Bidders whose equipment is short-listed, after technical trials and evaluation and these have been accepted technically. In other words, the equipment would be required to be trial evaluated and found suitable prior to commencement of any commercial negotiations.

### **Quality Assurance Instructions & Technical Evaluation Plan**

39. Guidelines for framing draft ATP are given at **Appendix G**. Bidder is to submit a Draft Acceptance Test Procedure (ATP) along with the Technical bid or at least one month before commencement of FET, as per the QA plan and Technical Evaluation Plan. Based on the draft ATP, the QAI will be finalised by the Buyer's QA agency with Bidder during Technical Trials. ATP shall be included in the contract at the time of finalisation with successful bidder. ATP will lay down the tests to be carried out during PDI and JRI. It shall be ensured that there are no repetition of QA tests in PDI and JRI. The JRI would normally be restricted to quantitative checks only, except where check proof is required to be carried out. QA of equipment will be carried out as per finalised QA plan in the contract. The successful Bidder would also be required to provide those test facilities at OEM premises/accredited laboratories for quality assurance, which are not available with QA agencies. Details of the same will be intimated to the Bidder during finalisation of ATP in Technical trials.

### **Painting and Packaging**

40. **Painting.**

(a) Quantity 46 x Bus (EV) of IAF should be painted in Dove Grey Colour (IS No: 694).

- (b) Quantity 60 x Bus (EV) of IA should be painted in Olive Green (IS No: 220).
- (c) Quantity 07 x Bus (EV) of IN should be painted in Brilliant White Colour.

41. **Packaging of Deliverables**. The Bidder shall pack or have packed the deliverables, (such as Technical Literature/User Hand Book) as applicable: -

- (a) In accordance with **Level P** of DEFSTAN 81-041 (Part 1) or equivalent Military Standard.
- (b) To ensure that each deliverable may be transported in an undamaged and serviceable condition.

42. The Bidder shall ensure that each package containing the deliverable is labeled to include: -

- (a) The name and address of the consigner and consignee including
  - (i) The delivery destination/address if not of the consignee
  - (ii) Transit destination/address (for aggregation/disaggregation, onward shipment etc)
- (b) The description and quantity of the deliverables.
- (c) The makers part, catalogue, serial, batch number, as appropriate.
- (d) The contract number.
- (e) Any statutory hazard markings and any handling markings including the mass of any package which exceeds 3 kgs.

### **PART III - COMMERCIAL REQUIREMENTS**

43. The third part of the RFP consists of the Commercial Clauses and Standard Clauses of contract. The bidders are required to give confirmation of their acceptance of these clauses. One copy of ISPPL to be provided by Bidders alongwith the commercial bid.

#### **Commercial Bid**

44. The Bidder is requested to take into consideration the **Commercial Clauses and Payment Terms** given at **Appendix H** to this RFP while formulating the Commercial Offers. The bidders are required to quote their price in Price bid format given in **Appendix J** to this RFP.

45. Commercial offers will be opened only of the Bidder whose equipment is short-listed, after technical trials and staff evaluation. The Commercial Offer must be firm and fixed and should be valid for at least **18 months** from the last date of bid submission.

#### **Commercial Bid Opening**

46. The Commercial Offers will be opened by the Contract Negotiation Committee (CNC) and if Bidder desires he may depute his representative, duly authorised in writing, to be present at the time of opening of the offers.

47. The date, time and venue fixed for this purpose will be intimated separately after the evaluations are completed.

48. The CNC will determine the lowest bidder (L1).

#### **Additional Aspects**

49. **Standard Conditions of RFP.** The Government of India desires that all actions regarding procurement of any equipment are totally transparent and carried out as per established procedures. The bidder is required to accept our standard conditions furnished at **Appendix K** to this RFP regarding Agents, penalty for use of undue influence and Integrity Pact, access to books of accounts, arbitration and clauses related to Law. These conditions along with other clauses of the Contract form the Standard Contract Document (as at **Chapter VI** of DAP 2020) indicates the general conditions of contract that would be the guideline for all acquisitions. The draft contract would be prepared as per these guidelines.

#### **PART IV: BID EVALUATION AND ACCEPTANCE CRITERIA**

50. A list of documents/details to be submitted along with the bids is placed at **Appendix M** as a reference to help in completeness of bid and meeting the procurement process schedule.

51. The bids shall be unconditional and unqualified. Any condition or qualification or any other stipulation contained in the bid shall render the bid liable to rejection as a non-responsive bid.

52. The bid and all communications in relation to or concerning the bidding documents shall be in English language.

53. **Evaluation and Acceptance Process.**

(a) **Evaluation of Technical Proposals.** The technical proposals forwarded by the Bidders will be evaluated by a Technical Evaluation Committee (TEC). The TEC will examine the extent of variations/differences, if any, in the technical characteristics of the equipment offered by various Bidders with reference to the QRs and prepare a "Compliance Statement" for shortlisting the Bidders. The shortlisted Bidders shall be asked to send the desired units of the equipment/weapon system to India for Field Evaluation in varying climatic, altitude and terrain conditions. Field Evaluation would be conducted for Essential Parameters-A. A Staff Evaluation will be carried out, which will give out the compliance of the demonstrated performance of the equipment vis-à-vis the requirements. The compliance would be determined only on the basis of the parameters specified in the RFP. The Staff Evaluation will analyse the field evaluation results and shortlist the equipment recommended for introduction into service.

(b) **Evaluation of Commercial Bid.** The Commercial bids of only those bidders will be opened, whose technical bids have been cleared by TEC; equipment has been shortlisted after Field Evaluation(Trials)/Technical Trials and Staff Evaluation. Comparison of bids would be done on the basis of Evaluation criteria given in **Appendix J** to this RFP. The L-1 bidder would be determined by Contract Negotiation Committee (CNC) on the basis of **Appendix J** to this RFP. Only L-1 bidder would be invited for negotiations by CNC.

(c) **Contract Conclusion.** The successful conclusion of CNC will be followed by contract conclusion.

**Appendix A**

(Refers to Para 26, 27, 28, 30(a),  
31 & 36 of RFP)

**OPERATIONAL CHARACTERISTICS AND FEATURES****ESSENTIAL PARAMETERS - 'A'****Operational Parameters.**

1. **Structural Materials.** All parts used in body of vehicle shall be corrosion resistant. Rubber used for sealing of Glasses shall be of weather resistant Ethylene Propylene Diene Monomer (EPDM) rubber seals or superior quality seals. All body joints, front safety glass, rear safety glass, doors, windows and hatches should be so constructed such that it does not permit ingress of rain water and dust, in the fully closed condition in accordance to IS 11865/1992 (as amended) and IS: 11739 – 1986 respectively. Body insulation shall be provided in accordance to clause 3.8 or AIS-052 (Revision-1): 2008.
2. **Bus Body Structure.**
  - (a) The bus body structure and driver compartment will conform to requirements in AIS-031. The bus to have Monocoque/ Semi-Monocoque/ Ladder type frame with structural life up to service life of the vehicle conforming to norms of ARAI/ CIRT/ Similar government certifying agencies. All structural members to be fabricated out of steel as per specifications prescribed for the bus body. Rubber rails will be provided on either sides of the bus body.
  - (b) Rubber strips and plastic tape will be fixed between the structure and side panels to avoid metal to metal contact.
  - (c) **LED Destination Board.** Minimum two LED destination boards shall be provided with one in the front and one in the rear. Dimensions shall be in accordance to clause 2.2.15.3 of AIS-052 (Revision-1): 2008 (as amended). LED destination boards shall comply with requirements specified in IS: 16490: 2016.
3. **Flooring of Bus Body.** The under frame of the bus will be covered with Aluminium alloy chequered plates of minimum 3 mm thickness fixed over 15mm thick marine quality plywood. The floor to be tapering to enable accumulated water inside to be drained off. The entire Gangway will be anti skid with PVC flooring (Fire resistant) as per AIS-052.
4. **Interior Panelling.** Pre painted GI/ Steel/Fibre sheets or aesthetically suitable material will be used for interior panelling of the bus.
5. **Seats and Seating Arrangements.**
  - (a) Seating capacity : 40 (excluding driver).

(b) Driver and co-driver seat shall be individual seat. Driver Seat shall be provided with self-adjusting mechanism as per height of driver. Driver/ co-driver seat shall comply with the requirements specified in AIS-023.

(c) Balance seats will be in double seat configuration on one side and on the other side it shall either be double seat configuration or continuous seat configuration (three passengers). Last row shall be continuous seat for five passengers. Dimensions of passenger seat shall be in accordance to clause 2.2.11.4 of AIS-052 (Revision-1) : 2008 (as amended).

6. **Roof Grab Rails.** As per CMVR norms.

7. **Doors.**

(a) Emergency exit in the form of emergency door shall be situated in the vehicle as per clause 2.2.4.1 (amended) of AIS-052 (Revision-1) : 2008. The emergency door shall be capable of operation from both inside and outside when operated manually. Emergency door shall meet the dimensional requirements given in Para 2.2.4.13 and technical requirements of Para 3.4.5.1 of AIS-052 (Revision-1) : 2008 (as amended). Marking of emergency exit shall be done in accordance to clause 3.4.5.4 of AIS-052 (Revision-1) : 2008 (as amended).

(b) One emergency exit with both sides opening facility to be provided to facilitate quick alighting in case of emergency. This door will be prominently identifiable from inside and outside the bus and will meet the dimensional requirement given in para 2.2.4.13 of AIS-052.

(c) All doors will be provided with suitable locking arrangements.

(d) Door shall be fitted with weather resistant EPDM rubber seals of suitable design to avoid dust and water ingress, in accordance to clause 3.4.3 of AIS-052 (Revision-1): 2008 (as amended).

(e) The structure of the door shall be able to withstand distortion due to forces induced during its operation and the operability of door components. The hinges and doors handles shall meet requirements as specified in IS13942:1994, as amended from time to time.

8. **Windows.**

(a) Fixed Window Panel with provision of hanging curtains on all windows will be provided.

(b) Window glasses/glazing/frames to be as per Para 3.6 of AIS-052. In addition, all glasses including wind screen (front/rear) will be UV protected (tinted), laminated and conforming to latest CMVR provisions.

(c) Window seals shall comply with requirements stipulated in clause 5.4 of AIS-068.

9. **Cabin Driver Compartment.** The cabin will have the following features: -
- (a) Driver's work area shall be governed by requirements stipulated in clause 2.2.16 of AIS-052 (Revision-1): 2008 (as amended).
- (b) Placement of Instruments panel, Shroud for Wiring harness, and HVAC shall be in accordance to clause 2.2.16.4.6, 2.2.16.4.7 and 2.2.16.4.9 of AIS-052 (Revision-1): 2008 (as amended) respectively.
- (c) **Controls, Tell-Tales and Indicators.** Control, tell-tales and indicators shall be provided in the bus as per requirements in AIS-071(Part 1) (Revision-1), Annexure-II. Symbol designated in Table A to N, P and R of AIS-071/Part 1) (Revision-1), Annexure-II for identifying a control, tell-tale or indicator. For hand-operated and foot-operated controls, applicable provisions of AIS-071(Part 2) will be provided.
- (d) **Dashboard Instruments & Control System.** The Bus shall have ergonomically designed dash board moulded in polymeric material, with full instrumentation panel containing meters and gauges to indicate important parameters like speedometer, odometer, trip meter, air pressure in brake tanks, coolant temperature, battery level, side indicators, head lights, hand brake. There should also be provision for interlock between exit/ entry door open and vehicle movement ie vehicle should not move if door is open.
10. **Interior Luggage Carrier.** Integrated modular closed hat-racks with AC ducts, individual seat climate control facility and embedded reading lights to be provided.
11. **Vehicle Dimensions.** Minimum gangway width will not be less than 400 mm and width of the bus to be between 2300-2600 mm. Vertical spaces inside the body will not be less than 1905 mm measured from center of the gangway to inside of the roof. The ground clearance will not be less than 180 mm as per ARAI norms. Floor height will be 850-950 mm.
12. **Bridge Classification.** The vehicle to be able to go across a Class 18 bridge and be transportable by broad gauge section of the railway with ODC clearance.
13. **Additional Fitments.**
- (a) **Notice Board.** A Notice Board (Soft board covered with appropriate fabric) will be fixed at the rear of the driver seat. The board will be covered with a lockable hinged/sliding transparent door.
- (b) **Luggage Hold Area/ Compartment.** Luggage Hold Area/ compartments shall be provided at the rear or at the sides, or both, with sufficient space and size, and shall be rattle proof, dust proof with safety arrangements. Total space shall be not less than 1.025 m<sup>3</sup> (0.025m<sup>3</sup> per passenger).
- (c) **Rear View Mirror.** Outside Rear View Mirrors (ORVM) will be provided with integrated indicators. Mirrors will be suitably positioned to minimize blind spots.
- (d) **First Aid Box.** First Aid Kits containing items notified under Rule 138 (4) (d) of CMVR 1989 shall be provided. The First aid kits shall be secured against

tampering and shall be kept in lockers or behind breakable glass. The location shall be marked clearly.

(e) **Audio System.** A Branded audio system with FM facility, USB, Blue Tooth, Auxiliary connectivity and set of six speakers (50 Watts) will be provided.

(f) **Emergency Switch.** The bus will be provided with an emergency declaration switch. This switch will activate an audio hooter and red blinking lights inside and outside the bus to declare an emergency and facilitate speedy evacuation of the passengers.

(g) **Bumper.** The front and rear bumpers to be provided as per CMVR norms.

(h) **Windshield.** Single piece, curved, laminated, tinted & UV protected windshield will be provided.

(j) **Towing / Lashing Arrangement.** Suitable towing arrangements will be provided in the front. Lashing hooks will be provided on sides of the vehicle.

(k) **Vehicle Reverse Parking Alert.** A system shall be provided to alert/ display the driver about obstacles on rear side of vehicles during parking in reverse gear. It shall provide audible and visual information and warning. Requirements of the system shall be in accordance to Annexure-6 of AIS-145 or superior to that.

(l) **Glove Compartment.** A lockable Glove Compartment for keeping vehicle documents will be provided.

(m) **Climate Control/HVAC.** Environmental control/HVAC will be provided in the bus with arrangements for both cooling and heating. A temperature of 25<sup>0</sup>C + 5<sup>0</sup>C up to an ambient temperature of 45<sup>0</sup>C and 15<sup>0</sup>C drop in temperature for ambient temperature above 45<sup>0</sup>C be achievable. Similarly, a temperature of 25<sup>0</sup>C + 5<sup>0</sup>C up to an ambient temperature of 0<sup>0</sup>C and 15<sup>0</sup>C rise in temperature for ambient temperature below 0<sup>0</sup>C will be achievable. Provision of vents will be made for each row of seats.

#### 14. **Energy Storage System.**

(a) The vehicle shall be fitted with Rechargeable Electrical Energy Storage System (REESS) that provides electric energy for electric propulsion. It shall meet the requirements of construction and functional safety as per AIS-038(Revision-1):2015 and clause 6.0 of AIS-156.

(b) **Electric Safety.** Electric safety shall be provided in the vehicle in accordance to Clause 5.0 of AIS-156.

(c) **Functional Safety.** Requirements of functional safety as mentioned in Clause 5.3 of AIS-156 to be provided in the vehicle.

(d) **Protection Against Water Effects.** Protection against washing, flooding and heavy rainstorm shall be provided in accordance to Clause 5.5 of AIS-156.

## **Technical Parameters**

### 15. **Motor.**

(a) **Type of Motor.** A suitable Permanent Magnet Synchronous Motor of not less than 200 kWh shall be provided which produces Torque not less than 3000 Nm.

(b) **Range.** Electric range shall be not less than 250 Kms with one opportunity charge.

### 16. **Battery**

(a) **Battery Capacity.** Not less than 200 KW.

(b) **Service Life.**

(i) **Battery pack & Motor life.** Not less than 4 years/ 3,00,000 Kms whichever is earlier.

(ii) **Battery pack & Motor Warranty.** Not less than 4 years/ 3,00,000 Kms.

(c) **Battery Cooling.** Adequate arrangement for cooling of the batteries to be made to ensure uninterrupted operation of the bus to its full capacity of range at full load.

(d) **Battery Charger.** Where required, one mini 240 KW Fast charger capable of charging battery pack from 0-80% in 45-90 minutes will be provided.

17. **Operating Temperature Range.** The vehicle will be designed to operate in the temperature range of 0°C to 45°C.

18. **Power Train.** The vehicle will have Automatic Transmission System.

### 19. **Brakes.**

(a) **Service Brakes.** Disc/Drum brakes with Anti-lock braking system (ABS) will be provided. Braking efficiency to conform to latest IS applicable at the time of trials.

(b) **Parking Brake.** Hand operated electric/pneumatic/spring actuated parking brake system will be provided. The brake will be capable of holding the vehicle at a Gradient of not less than 25° with full payload.

20. **Steering.** Vehicle to have Right hand drive. Adjustable, Tilt and Telescopic hydraulic power steering to be provided.

21. **Suspension.** The Bus shall be fitted with Air Bellow Suspension at both Front and Rear.

22. **Performance Capabilities in Fully Laden Condition.**

- |     |                          |   |  |
|-----|--------------------------|---|--|
| (a) | Maximum speed on Highway | : | Not less than 65 Km/hr                                   |
| (b) | Gradability              | : | Not less than 17% (9.65 <sup>0</sup> ) with full payload |
| (c) | Turning Circle Diameter  | : | Not more than 24,000 mm                                  |
| (d) | Angle of approach        | : | Not less than 9 <sup>0</sup>                             |
| (e) | Angle of departure       | : | Not less than 9 <sup>0</sup>                             |

23. **Wheels and Tyres.** The tyres to be of standard tread pattern. A spare wheel will be provided.

24. **Electrical System.**

- (a) **System Voltage.** 24 Volts DC Negative ground.
- (b) **Battery.** 24 Volts Maintenance free battery.
- (c) **Wiper Motor.** Minimum two speed wiper motor will be provided.
- (d) **Wind Screen Washing.** A mechanism for wind screen washing will be provided.
- (e) **Demister.** Demisting of the windscreen to be possible through the HVAC system.
- (f) **Electric Cables.** Electric cables used in bus shall conform to the requirements mentioned in Clause 5.1 of AIS-052 (Revision-1) : 2008 (as amended). Standards of electrical wiring mentioned in clause 5.6 of AIS-052 (Revision-1):2008 (as amended) to be adhered to. Safety requirements as stipulated in clause 5.4 of AIS-052 (Revision-1): 2008 (as amended). Fuse and terminal connectors shall be in accordance to clause 5.2 and 5.3 respectively of AIS-052 (Revision-1) : 2008 (as amended).

25. A battery isolating switch to be incorporated in the electrical system to avoid accidental damage to the battery and electrical system.

26. **Lighting and Fitments.**

- (a) **External Lighting.** External lighting and light-signaling devices of the bus shall comply with the Rules laid down under the Central Motor Vehicle Rules, 1989, and as amended from time to time. All lighting and light-signaling devices shall be Type Approved.
- (b) **Internal Lighting.** Lighting and light-signaling devices shall provide adequate illumination inside the bus for the safe operation by the driver and the passengers, during darkness and other conditions of reduced visibility.

(c) Lighting to be fitted in accordance to Chapter 4 of AIS-052 (Revision-1) : 2008 (as amended).

(d) In addition to mandatory lighting as per CMVR norms, following lightings shall also be provided: -

- (i) Dash Board Tell-tale lighting/ Control lighting.
- (ii) Driver Cabin lighting.
- (iii) Passenger Compartment lighting.
- (iv) Luggage hold area lighting.
- (v) Destination panel lighting.
- (vi) Side marker lamp.

(e) The luminance of all lamps provided for lighting instruments and controls inside the cabin shall be at least 2 cd/m<sup>2</sup>. The luminous flux of all lamps provided for cabin lighting to light up equipment components and to read, will not be less than 50 lux and will not be more than 150 lux when measured at 500 mm above the passenger's seat base.

(f) A socket for taking power for lighting other area of bus or nearby to bus shall be provided with a cable of length 5 meters.

(g) Two convoy lights shall be provided in the front of the vehicle. When the convoy light is on, all other lightings shall be switched off automatically, except emergency lamps.

### **Maintainability & Ergonomic Parameters**

27. **Maintenance.** All assemblies like motor, axle, suspension, wheels, brakes etc will be designed and fitted in such a way that these accessories are within reach for maintenance and replacement.

28. **Tool Box, Jack and Spare Tyre.** Tool Box, Jack and spare tyre will be provided in the bus at a suitable location.

29. **Weather Proofing.** The vehicle will be painted with corrosion resistant paint.

30. **General.** The bus (Electric) will meet all other mandatory safety, technical and passenger comfort requirements as per latest CMVR applicable to Buses.

31. **Fire Detection and Suppression System (FDSS).** Fire Detection and Suppression System (FDSS) shall be fitted with complying with AIS-135:2016, as amended from time to time. In addition, four portable 2 Kg CO<sub>2</sub> Fire Extinguisher will be suitably mounted in the vehicle.

32. Dust and water ingress protection shall comply with specifications IS/IEC 60947-1:2004 in conjunction with IS/IEC 60529:2001, 'nodes'IP54.
33. Vehicle shall meet the requirements of EME/EMC as per AIS-004 (as amended).

**ESSENTIAL PARAMETERS 'B'**

Nil

**ENHANCED PERFORMANCE PARAMETERS  
ALONGWITH PROPOSED CREDIT SCORES**

**Nil**

**Notes: -**

- (a) **Trialability/ Testing of Parameters.** Systems/ components fitted in the bus shall meet the applicable IS/AIS/JSS standards and tested in accredited test labs. For applicable components fitted in bus where Type Approval is mandated, same shall be tested in accredited labs in accordance with applicable standards.

RFP as on 08 Dec 2022

**Appendix B**  
(Refers to Para 26, 30(b) & 31 of RFP)

**COMPLIANCE TABLE**

Ser No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Compliance	Reference of Page No, Para No & Sub Para No of OEM's Main Technical Document
1.	<b><u>PART – I: General Condition of RFP (Para 1 to 53 (c))</u></b>			
2.	<b><u>Essential Parameters 'A'</u></b>			
3.	<b><u>Operational Parameters</u></b>			
4.	1	<b><u>Structural Materials.</u></b> All parts used in body of vehicle shall be corrosion resistant. Rubber used for sealing of Glasses shall be of weather resistant Ethylene Propylene Diene Monomer (EPDM) rubber seals or superior quality seals. All body joints, front safety glass, rear safety glass, doors, windows and hatches should be so constructed such that it does not permit ingress of rain water and dust, in the fully closed condition in accordance to IS 11865/1992 (as amended) and IS: 11739 – 1986 respectively. Body insulation shall be provided in accordance to clause 3.8 or AIS-052 (Revision-1) : 2008.		
5.	2	<b><u>Bus Body Structure.</u></b> (a) The bus body structure and driver compartment will conform to requirements in AIS-031. The bus to have Monocoque/ Semi-Monocoque/ Ladder type frame with structural life up to service life of the vehicle conforming to norms of ARAI/ CIRT/ Similar government certifying agencies. All structural members to be fabricated out of steel as per specifications prescribed for the bus body. Rubber rails will be provided on either sides of the bus body.		

Ser No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Compliance	Reference of Page No, Para No & Sub Para No of OEM's Main Technical Document
		<p>(b) Rubber strips and plastic tape will be fixed between the structure and side panels to avoid metal to metal contact.</p> <p>(c) <b>LED Destination Board.</b> Minimum two LED destination boards shall be provided with one in the front and one in the rear. Dimensions shall be in accordance to clause 2.2.15.3 of AIS-052 (Revision-1): 2008 (as amended). LED destination boards shall comply with requirements specified in IS: 16490 : 2016.</p>		
6.	3	<p><b>Flooring of Bus Body.</b> The under frame of the bus will be covered with Aluminium alloy chequered plates of minimum 3mm thickness fixed over 15mm thick marine quality plywood. The floor to be tapering to enable accumulated water inside to be drained off. The entire Gangway will be anti-skid with PVC flooring (Fire resistant) as per AIS-052.</p>		
7.	4	<p><b>Interior Panelling.</b> Pre painted GI/ Steel/Fibre sheets or aesthetically suitable material will be used for interior panelling of the bus.</p>		
8.	5	<p><b>Seats and Seating Arrangements.</b></p> <p>(a) Seating capacity : 40 (excluding driver &amp; Co-Driver)).</p> <p>(b) Driver and co-driver seat shall be individual seat. Driver Seat shall be provided with self-adjusting mechanism as per height of driver. Driver/ co-driver seat shall comply with the requirements specified in AIS-023.</p> <p>(c) Balance seats will be in double seat configuration on one side and on the other side it shall either be double seat configuration or continuous seat configuration (three passengers). Last row shall be continuous seat for five passengers. Dimensions of passenger seat shall be in accordance to clause 2.2.11.4 of AIS-052 (Revision-1) : 2008 (as amended).</p>		

Ser No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Compliance	Reference of Page No, Para No & Sub Para No of OEM's Main Technical Document
9.	6	<b>Roof Grab Rails.</b> As per CMVR norms.		
10.	7	<p><b>Doors.</b></p> <p>(a) Emergency exit in the form of emergency door shall be situated in the vehicle as per clause 2.2.4.1 (amended) of AIS-052 (Revision-1): 2008. The emergency door shall be capable of operation from both inside and outside when operated manually. Emergency door shall meet the dimensional requirements given in Para 2.2.4.13 and technical requirements of Para 3.4.5.1 of AIS-052 (Revision-1): 2008 (as amended). Marking of emergency exit shall be done in accordance to clause 3.4.5.4 of AIS-052 (Revision-1): 2008 (as amended).</p>		
		<p>(b) One emergency exit with both sides opening facility to be provided to facilitate quick alighting in case of emergency. This door will be prominently identifiable from inside and outside the bus and will meet the dimensional requirement given in para 2.2.4.13 of AIS-052.</p>		
		<p>(c) All doors will be provided with suitable locking arrangements.</p>		
		<p>(d) Door shall be fitted with weather resistant EPDM rubber seals of suitable design to avoid dust and water ingress, in accordance to clause 3.4.3 of AIS-052 (Revision-1): 2008 (as amended).</p>		
		<p>(e) The structure of the door shall be able to withstand distortion due to forces induced during its operation and the operability of door components. The hinges and doors handles shall meet requirements as specified in IS13942:1994, as amended from time to time.</p>		
11.	8	<p><b>Windows</b></p> <p>(a) Fixed Window Panel with provision of hanging curtains on all windows will be provided.</p>		

Ser No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Compliance	Reference of Page No, Para No & Sub Para No of OEM's Main Technical Document
		(b) Window glasses/glazing/frames to be as per Para 3.6 of AIS-052. In addition, all glasses including wind screen (front/rear) will be UV protected (tinted), laminated and confirming to latest CMVR provisions.		
		(c) Window seals shall comply to requirements stipulated in clause 5.4 of AIS-068.		
12.	9	<p><b><u>Cab Driver Compartment.</u></b> The cabin will have the following features: -</p> <p>(a) Driver's work area shall be governed by requirements stipulated in clause 2.2.16 of AIS-052 (Revision-1) : 2008 (as amended).</p> <p>(b) Placement of Instruments panel, Shroud for Wiring harness, and HVAC shall be in accordance to clause 2.2.16.4.6, 2.2.16.4.7 and 2.2.16.4.9 of AIS-052 (Revision-1) : 2008 (as amended) respectively.</p> <p>(c) <b><u>Controls, Tell-Tales and Indicators.</u></b> Control, tell-tales and indicators shall be provided in the bus as per requirements in AIS-071(Part 1) (Revision-1), Annexure-II. Symbol designated in Table A to N, P and R of AIS-071/Part 1) (Revision-1), Annexure-II for identifying a control, tell-tale or indicator. For hand-operated and foot-operated controls, applicable provisions of AIS-071(Part 2) will be provided.</p> <p>(d) <b><u>Dashboard Instruments &amp; Control System.</u></b> The Bus shall have ergonomically designed dash board moulded in polymeric material, with full instrumentation panel containing meters and gauges to indicate important parameters like speedometer, odometer, trip meter, air pressure in brake tanks, coolant temp, battery level, side indicators, head lights, hand brake. There should also be provision for interlock between exit/entry door open and vehicle movement i.e. vehicle should not move if door is open.</p>		

Ser No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Compliance	Reference of Page No, Para No & Sub Para No of OEM's Main Technical Document
13.	10	<b>Interior Luggage Carrier.</b> Integrated modular closed hat-racks with AC ducts, individual seat climate control facility and embedded reading lights to be provided.		
14.	11	<b>Vehicle Dimensions.</b> Minimum gangway width will not be less than 400 mm and width of the bus to be between 2300-2600 mm. Vertical spaces inside the body will not be less than 1905 mm measured from centre of the gangway to inside of the roof. The ground clearance will not be less than 180 mm as per ARAI norms. Floor height will be 850-950 mm.		
15.	12	<b>Bridge Classification.</b> The vehicle to be able to go across a Class 18 bridge and be transportable by broad gauge section of the railway with ODC clearance.		
16.	13	<b>Additional Fitments</b>  (a) <b>Notice Board.</b> A Notice Board (Soft board covered with appropriate fabric) will be fixed at the rear of the driver seat. The board will be covered with a lockable hinged/sliding transparent door.		
		(b) <b>Luggage Hold Area/ Compartment.</b> Luggage Hold Area/ compartments shall be provided at the rear or at the sides, or both, with sufficient space and size, and shall be rattle proof, dust proof with safety arrangements. Total space shall be not less than 1.025 m <sup>3</sup> (0.025m <sup>3</sup> per passenger).		
		(c) <b>Rear View Mirror.</b> Outside Rear View Mirrors (ORVM) will be provided with integrated indicators. Mirrors will be suitably positioned to minimize blind spots.		
		(d) <b>First Aid Box.</b> First Aid Kits containing items notified under Rule 138 (4) (d) of CMVR 1989 shall be provided. The First aid kits shall be secured against tampering and shall be kept in lockers or behind breakable glass. The location shall be marked clearly.		

Ser No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Compliance	Reference of Page No, Para No & Sub Para No of OEM's Main Technical Document
		(e) <b>Audio System.</b> A Branded audio system with FM facility, USB, Blue Tooth, Auxiliary connectivity and set of six speakers (50 Watts) will be provided.		
		(f) <b>Emergency Switch.</b> The bus will be provided with an emergency declaration switch. This switch will activate an audio hooter and red blinking lights inside and outside the bus to declare an emergency and facilitate speedy evacuation of the passengers.		
		(g) <b>Bumper.</b> The front and rear bumpers to be provided as per CMVR norms.		
		(h) <b>Windshield.</b> Single piece, curved, laminated, tinted & UV protected windshield will be provided.		
		(j) <b>Towing / Lashing Arrangement.</b> Suitable towing arrangements will be provided in the front. Lashing hooks will be provided on sides of the vehicle.		
		(k) <b>Vehicle Reverse Parking Alert.</b> A system shall be provided to alert/ display the driver about obstacles on rear side of vehicles during parking in reverse gear. It shall provide audible and visual information and warning. Requirements of the system shall be in accordance to Annexure-6 of AIS-145 or superior to that.		
		(l) <b>Glove Compartment.</b> A lockable Glove Compartment for keeping vehicle documents will be provided.		

Ser No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Compliance	Reference of Page No, Para No & Sub Para No of OEM's Main Technical Document
		<p>(m) <b>Climate Control/HVAC.</b> Environmental control/HVAC will be provided in the bus with arrangements for both cooling and heating. A temperature of 25°C + 5°C up to an ambient temperature of 45°C and 15°C drop in temperature for ambient temperature above 45°C be achievable. Similarly, a temperature of 25°C + 5°C up to an ambient temperature of 0°C and 15°C rise in temperature for ambient temperature below 0°C will be achievable. Provision of vents will be made for each row of seats.</p>		
17.	14	<p><b>Energy Storage System.</b></p> <p>(a) The vehicle shall be fitted with Rechargeable Electrical Energy Storage System (REESS) that provides electric energy for electric propulsion. It shall meet the requirements of construction and functional safety as per AIS-038(Revision-1):2015 and clause 6.0 of AIS-156.</p>		
		<p>(b) <b>Electric Safety.</b> Electric safety shall be provided in the vehicle in accordance to Clause 5.0 of AIS-156.</p>		
		<p>(c) <b>Functional Safety.</b> Requirements of functional safety as mentioned in Clause 5.3 of AIS-156 to be provided in the vehicle.</p>		
		<p>(d) <b>Protection Against Water Effects.</b> Protection against washing, flooding and heavy rainstorm shall be provided in accordance to Clause 5.5 of AIS-156.</p>		

Ser No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Compliance	Reference of Page No, Para No & Sub Para No of OEM's Main Technical Document
<b>Technical Parameters</b>				
18.	15	<b><u>Motor.</u></b>		
		(a) <b><u>Type of Motor.</u></b> A suitable Permanent Magnet Synchronous Motor of not less than 200 kWh shall be provided which produces Torque not less than 3000 Nm.		
		(b) <b><u>Range.</u></b> Electric range shall be not less than 250 Kms with one opportunity charge.		
19.	16	<b><u>Battery</u></b>		
		(a) <b><u>Battery Capacity.</u></b> Not less than 200 KW.		
		(b) <b><u>Service Life.</u></b>		
		(i) <b><u>Battery pack &amp; Motor life.</u></b> Not less than 4 years/ 3,00,000 Kms whichever is earlier.		
		(ii) <b><u>Battery pack &amp; Motor Warranty.</u></b> Not less than 4 years/ 3,00,000 Kms.		
		(c) <b><u>Battery Cooling.</u></b> Adequate arrangement for cooling of the batteries to be made to ensure uninterrupted operation of the bus to its full capacity of range at full load.		
		(d) <b><u>Battery Charger.</u></b> Where required, one mini 240 KW Fast Charger capable of charging battery pack from 0-80% in 45-90 minutes will be provided.		
20.	17	<b><u>Operating Temperature Range.</u></b> The vehicle will be designed to operate in the temperature range of 0°C to 45°C.		
21.	18	<b><u>Power Train.</u></b> The vehicle will have Automatic Transmission System.		

Ser No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Compliance	Reference of Page No, Para No & Sub Para No of OEM's Main Technical Document
22.	19	<b><u>Brakes.</u></b> (a) <b><u>Service Brakes.</u></b> Disc/Drum brakes with Anti-lock braking system (ABS) will be provided. Braking efficiency to conform to latest IS applicable at the time of trials.		
		(b) <b><u>Parking Brake.</u></b> Hand operated electric/pneumatic/spring actuated parking brake system will be provided. The brake will be capable of holding the vehicle at a Gradient of not less than 25 <sup>0</sup> with full payload.		
23.	20	<b><u>Steering.</u></b> Vehicle to have Right hand drive. Adjustable, Tilt and Telescopic hydraulic power steering to be provided.		
24.	21	<b><u>Suspension.</u></b> The Bus shall be fitted with Air Bellow Suspension at both Front and Rear.		
25.	22	<b><u>Performance Capabilities in Fully Laden Condition.</u></b>		
		(a) Maximum speed on Highway : Not less than 65 Km/hr		
		(b) Gradability : Not less than 17% (9.65 <sup>0</sup> with full payload		
		(c) Turning Circle Diameter : Not more than 24,000 mm		
		(d) Angle of approach : Not less than 9 <sup>0</sup>		
(e) Angle of departure : Not less than 9 <sup>0</sup>				

Ser No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Compliance	Reference of Page No, Para No & Sub Para No of OEM's Main Technical Document
26.	23	<b>Wheels and Tyres.</b> The tyres to be of standard tread pattern. A spare wheel will be provided.		
27.	24	<p><b>Electrical System.</b></p> <p>(a) <b>System Voltage.</b> 24 Volts DC Negative ground.</p> <p>(b) <b>Battery.</b> 24 Volts Maintenance free battery.</p> <p>(c) <b>Wiper Motor.</b> Minimum two speed wiper motor will be provided.</p> <p>(d) <b>Wind Screen Washing.</b> A mechanism for wind screen washing will be provided.</p> <p>(e) <b>Demister.</b> Demisting of the windscreen to be possible through the HVAC system.</p> <p>(f) <b>Electric Cables.</b> Electric cables used in bus shall conform to the requirements mentioned in Clause 5.1 of AIS-052 (Revision-1) : 2008 (as amended). Standards of electrical wiring mentioned in clause 5.6 of AIS-052 (Revision-1):2008 (as amended) to be adhered to. Safety requirements as stipulated in clause 5.4 of AIS-052 (Revision-1) : 2008 (as amended). Fuse and terminal connectors shall be in accordance to clause 5.2 and 5.3 respectively of AIS-052 (Revision-1) : 2008 (as amended).</p>		
28.	25	A battery isolating switch to be incorporated in the electrical system to avoid accidental damage to the battery and electrical system.		
29.	26	<p><b>Lighting and Fitments.</b></p> <p>(a) <b>External Lighting.</b> External lighting and light-signaling devices of the bus shall comply with the Rules laid down under the Central Motor Vehicle Rules, 1989, and as amended from time to time. All lighting and light-signaling devices shall be Type Approved.</p>		

Ser No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Compliance	Reference of Page No, Para No & Sub Para No of OEM's Main Technical Document
		(b) <b>Internal Lighting.</b> Lighting and light-signaling devices shall provide adequate illumination inside the bus for the safe operation by the driver and the passengers, during darkness and other conditions of reduced visibility.		
		(c) Lighting to be fitted in accordance to Chapter 4 of AIS-052 (Revision-1): 2008 (as amended).		
		(d) In addition to mandatory lighting as per CMVR norms, following lightings shall also be provided: - <ul style="list-style-type: none"> <li>(i) Dash Board Tell-tale lighting/ Control lighting.</li> <li>(ii) Driver Cabin lighting.</li> <li>(iii) Passenger Compartment lighting.</li> <li>(iv) Luggage hold area lighting.</li> <li>(v) Destination panel lighting.</li> <li>(vi) Side marker lamp.</li> </ul>		
		(e) The luminance of all lamps provided for lighting instruments and controls inside the cabin shall be at least 2 cd/m <sup>2</sup> . The luminous flux of all lamps provided for cabin lighting to light up equipment components and to read, will not be less than 50 lux and will not be more than 150 lux when measured at 500 mm above the passenger's seat base.		
		(f) A socket for taking power for lighting other area of bus or nearby to bus shall be provided with a cable of length 5 meters.		
		(g) Two convoy lights shall be provided in the front of the vehicle. When the convoy light is on, all other lightings shall be switched off automatically, except emergency lamps.		

Ser No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Compliance	Reference of Page No, Para No & Sub Para No of OEM's Main Technical Document
<b>Maintainability &amp; Ergonomic Parameters</b>				
30.	27	<b>Maintenance.</b> All assemblies like motor, axle, suspension, wheels, brakes etc will be designed and fitted in such a way that these accessories are within reach for maintenance and replacement.		
31.	28	<b>Tool Box, Jack and Spare Tyre.</b> Tool Box, Jack and spare tyre will be provided in the bus at a suitable location.		
32.	29	<b>Weather Proofing.</b> The vehicle will be painted with corrosion resistant paint.		
33.	30	<b>General.</b> The bus (Electric) will meet all other mandatory safety, technical and passenger comfort requirements as per latest CMVR applicable to Buses.		
34.	31	<b>Fire Detection and Suppression System (FDSS).</b> Fire Detection and Suppression System (FDSS) shall be fitted with complying with AIS-135:2016, as amended from time to		
35.	32	Dust and water ingress protection shall comply with specifications IS/IEC 60947-1:2004 in conjunction with IS/IEC 60529:2001, 'nodes'IP54.		
36.	33	Vehicle shall meet the requirements of EMI/EMC as per AIS-004 (as amended).		
<b>Appx B to RFP Commercial Parameters as per RFP</b>				
37.	Performance-cum-Warranty Bank Guarantee as per Para 2 of Appendix H of RFP			
38.	Advance Payment Bank Guarantee as per Para 1.3.3 of Appendix H of RFP			
39.	<b>Earnest Money Deposit</b> as per Para 24 of RFP ( <b>₹ 70 Lakh</b> )			

**Appendix C**  
(Refers to Para 11 of RFP)

**WARRANTY CLAUSE**

1. The **SELLER** warrants that the goods/services supplied under this contract conform to technical specifications prescribed and shall perform according to the said Technical Specifications.

2. The **SELLER** warrants for a period of '**24 (Twenty Four) months onsite warranty**' from the date of acceptance of deliverables post Joint Receipt Inspection or from date of installation and commissioning (as applicable), that the goods/stores/services supplied under this contract and each component used in the manufacture thereof should be free from all types of defects/failures (including latent and patent defects). In addition, the warranty of **Battery Pack & Motor life** will not be less than **04 (four) years or 3,00,000 Kms, whichever is earlier**'.

3. If within the period of warranty, the goods/stores are reported by the **BUYER** to have failed to perform as per the specifications, the **SELLER** shall either replace or rectify the same free of charge, maximum within **45 days** of notification of such defect by the **BUYER** provided that the goods are used and maintained by the **BUYER** as per instructions contained in the Operating Manual. Warranty of the equipment would be extended by such duration **of downtime, if not repaired/ replaced within 45 days**. Record of the down time would be maintained by user in log book. Spares **and all consumables** required for warranty repairs shall be provided free of cost by **SELLER**. The **SELLER** also warrants that the special oils and lubricants required for the warranty repair of the equipment shall be provided by the **SELLER** himself. **All activities including diagnosis, rectification, calibration, transportation etc, required for making equipment serviceable and available would be the SELLER's responsibility.** The **SELLER** also undertakes to diagnose, test, adjust, calibrate and repair/replace the goods/equipment arising due to accidents by neglect or misuse by the operator or damage due to transportation of the goods during the warranty period, at the cost mutually agreed to between the **BUYER** and the **SELLER**. The **SELLER** shall intimate the assignable cause of the failures.

4. **SELLER** hereby warrants that necessary cost towards service and repair backup including consumables, spares, labour and oils/lubricants/ greases required for the periodic/ scheduled/ un-scheduled maintenance of the equipment during the warranty period, including routine maintenance beyond Unit Level, shall be borne by the **SELLER**.

5(a). If a particular equipment/ goods fails frequently or the cumulative down time exceeds **10%** of the warranty period, then the equipment will be completely replaced free of cost by the **SELLER** within a stipulated period of 120 days of receipt of the notification from the **BUYER**.

5(b). **If a common defect is noticed in more than 5% of the quantity of equipment with respect to a particular item/ component/ sub-component, that complete item/ component/ sub-component** shall be replaced free of cost by the **SELLER** within a stipulated period of **120 days** of receipt of the notification from the **BUYER** duly modified/upgraded through design improvement in all equipment supplied/ yet to be supplied and ESP supplied/ yet to be supplied.

6. **SELLER shall associate QA of BUYER during warranty repair and shall provide complete details of defect, reasons and remedial actions for averting recurrence of such defects.**
7. In case the complete delivery of the Engineering Support Package is delayed beyond the period stipulated in this contract, then the **SELLER** undertakes that the warranty period for the goods/stores shall be extended to that extent.
8. **The SELLER warrants that the goods supplied will conform to the Temperature and Humidity conditions as mentioned at Appendix A to RFP.**
9. The seller is also bound to support the Buyer's QA agency for defect investigations beyond the warranty period, at a cost to be negotiated between Buyer and seller, on occurrence.
10. **The terms of warranty and OEM/ Seller Contact Details including phone number and email should be mentioned in the User Hand Book (UHB). The date from which warranty is applicable (duly endorsed by representative of both Buyer & Seller) should be mentioned in respective log book and User Hand Book of the main equipment and accessories.**

**Appendix D**  
(Refers to Para 32 of RFP)

**CERTIFICATE: MALICIOUS CODE**  
(To be rendered on the Company Letter head)

1. This is to certify that the Hardware and the Software being offered, as part of the Contract, does not contain embedded malicious code that would activate procedures to:-

- (a) Inhibit the desired and designed function of the equipment.
- (b) Cause physical damage to the user or equipment during the exploitation.
- (c) Tap information resident or transient in the equipment/ networks.

2. The firm will be considered to be in breach of the procurement contract, in case physical damage, loss of information or infringements related to copyright and Intellectual Property Rights (IPRs) are caused due to activation of any such malicious code in embedded software.

(Signed)

Designation/Name/Address of firm

Date:

Place:

**Appendix E**  
(Refers to Para 34 of RFP)

**PRODUCT SUPPORT**

1. **Maintenance Philosophy.** Maintenance of the equipment is through outsourcing model. The equipment will be '**onsite**' serviced/ repaired (if OEM/ authorised service centre does not exist at a station) by the OEM/ SELLER, on payment basis post warranty. To sustain and support platform/ equipment through its operational life cycle, OEM/ SELLER shall ensure product support for next 15 Years on payment, as and when need arises.

2. **Technical Documentation.** The details of technical literature to be supplied with the system should be listed as per the suggested format at **Annexure I** to this Appendix. This should be provided with both Technical and Commercial Proposals. The cost column may be left blank in the Technical Proposal. List of documents which may be submitted by the Seller for FET is as under: -

- (a) User Handbook/Operators Manual in English and Hindi.
- (b) Repair and Servicing Schedule.
- (c) Any additional information suggested by the OEM.

3. **Training.** A training package for operators to undertake operation and QA personnel for QA of equipment as stipulated in respective contract, along with tools and test jigs training would be required to be carried out in English and Hindi language. Requirements such as training aids, projection system, complete equipment with accessories, technical literature, spares, test equipment, test set up, charts, training handouts, power point presentations, Computer Based Training (CBT), Documentation, Simulators etc will be provided by the Seller for the conduct of training. The Seller will provide the Operator and QA personal training, for the duration, strength and locations as specified at Para 16 in the RFP. The following may also be noted:

- (a) The requirement of training and associated equipment are specified in Part I.
- (b) The cost of training must only be indicated in the commercial proposal.
- (c) **Sufficiency clause** Bidder will give an undertaking agreeing to provide Training material and Technical Literature under the provisions of this clause within the existing commercial quotes. On completion of training, operators should be capable of operating the complete system in field condition..

**Active Technology Obsolescence Management (where applicable)**

4. OEM will indicate his methodology to undertake Active Obsolescence Management through life cycle of equipment which would include upgradation of systems/ subsystems/ units on completion of its fair service life. The Bidder/OEM (as applicable) shall also intimate the Buyer on likely technology obsolescence of various sub-assemblies/units/modules of equipment through an Annual Bulletin. In case of impending obsolescence of components, bulletin should specify either alternate item or option for life-time buy as under: -

(a) The Bidder/OEM (as applicable) will notify the Buyer not less than three years before the closure of its production line about the intention to close production of equipment for provision of purchasing spare parts, before closure of the said production line.

(b) Three years prior to completion of design/service life of equipment, the Bidder/OEM (as applicable) will submit techno-commercial proposal for upgradation of equipment, wherever applicable, to mitigate technology obsolescence and for ensuring product support for next 15 years.

RFP as on 08 Dec 2022

**Annexure I to Appendix E**  
(Refers to Para 2 of Appendix E)

**TECHNICAL LITERATURE**

**EQUIPMENT: QUANTITY ONE HUNDRED THIRTEEN (113) BUS (ELECTRIC) WITH FORTY-THREE (43) FAST CHARGERS**

Original Equipment Manufacturer (OEM): \_\_\_\_\_

<b>Ser No.</b>	<b>Technical Literature</b>	<b>Unit Cost</b>	<b>Scale For equipment</b>	<b>Total Cost</b>	<b>Remarks</b>
1.	User Handbook/operators Manual of Bus (Electric)		120		
2.	User Handbook/operators Manual of Fast Charger		47		
3.	CDs on the above Tech literature		04		
4.	Any other (specify)		-		

**Total Cost:**

- Note:**
- (i) If certain technical literature is being provided free of cost it should be indicated in the remarks column.
  - (ii) Operating manual supplied by sub-contractors also to be provided in original. These are the items which have been sourced for integration into main equipment.
  - (iii) Set of CDs being provided should permit printing and duplication.
  - (iv) User Handbook/ Operator's manual which would be Bilingual (Hindi/ English).

**Appendix F**

(Refers to Para 36, 37 & 37(b) of RFP)

**TRIAL METHODOLOGY: BUS (ELECTRIC), QTY – 113**

1. Field Evaluation Trials by **CTT** will be conducted on a 'No Cost No Commitment' (NCNC) basis under the aegis of IHQ of MoD (Army). The broad trial plan for evaluation along with evaluating agencies is given at **Annexure** to this methodology.
2. **Pre-Trial Meeting.** Pre-Trial meeting to intimate broad schedule and modalities of trials will be organized at a place, which will be intimated to vendors. The meeting will include representatives of OEMs whose equipment has qualified in the TEC, representatives of all stakeholders and agencies involved in conduct of trials.
3. The methodology for evaluation of each parameter of the Appendix A of RFP is highlighted at **Annexure**. However, the decision to carry out physical evaluation for parameters wherein certification is sought, or to seek certification for parameters wherein physical evaluation has been laid down, rests with CD Directorate, depending on conditions existing during the Field Evaluation Trials. Such decisions will be communicated during the Pre-Trial Meeting.
4. **Deposition of Trial Equipment.** All OEMs are to be prepared to deposit the equipment for trials immediately on intimation of successful clearance of TEC. The final date for fielding the equipment for trials will be intimated only to TEC compliant OEMs. Quantity **one (01) Bus (Electric)** with complete accessories will be submitted by the OEMs at the designated trial location for conduct of the Field Evaluation Trials.
5. **Deposition of Technical Documents.** Each vendor should provide two complete sets of technical literature (User Hand Book, Technical Manuals & Design/Technical Specifications, as applicable, if any) along with one CD containing the soft copy of the same for **Bus (Electric)**. **The technical literature and all documents should be provided by the vendor at least one month in advance of the NCNC trials.** NABL/ Government Lab Certificate accompanied by test results for equipment, wherever applicable, shall be submitted by the OEM along with the equipment before commencement of trials. Failure to do so shall be construed as non-submission of equipment for trials. The QA representative in the trial team will carry out a check of all applicable certification including CoC, prior to commencement of physical trials. The OEM certification will be accompanied by internal QC report of the OEM.
6. These trials will be conducted strictly in accordance with the provisions laid out in DAP-2020 and the trial equipment will be tested against parameters mentioned at **Annexure**. Any change in methodology of evaluation will be at the discretion of the CD Directorate and will be communicated to the OEM during Pre-Trial Meeting. In situ repairs/modifications of the trial equipment may be allowed with due permission. However, the trial eqpt will not be allowed to be changed after the trial equipment has been taken over by the trial team. The trial equipment may be allowed to move out of the trial location for a defined period for repairs/modifications after due permission from CD-13/14 on a case to case basis.

7. **Optional Equipment.** Optional equipment may be provided by the vendor alongwith the equipment for trials. The optional equipment will be trial evaluated during the trials and compliance/ non-compliance will be mentioned in the trial report but without having any bearing on overall compliance/non-compliance of the equipment.
8. **Terrain and Crew.** Terrain for trials will be selected at the discretion of the User. Crew for operating the trial equipment will be provided by the OEM. Adequate training & familiarization of crew will be carried out by the OEM.
9. **Transportation of Equipment.** Whenever movement of trial stores is being undertaken by the vendors from one trial location to another, the equipment will be suitably sealed to prevent tampering. Being **NCNC** trials, all charges for transportation incl freight, insurance, custom, octroi duties and any other local taxes shall be borne by the vendors. A rep of vendor shall accompany the equipment being transported at all times.
10. **Test Facility.** In case facilities to conduct test are not available in any Government Laboratories (including DGQA/DRDO laboratories/other Government establishments) test will be conducted in private laboratories in India.
11. **Test Charges.** The participating OEMs may be required to pay for the tests conducted in the labs.
12. **Additional Tests.** There may be some additional tests that may be required to be carried out by QA agency at the locations identified by Officer in Charge (OIC) Trial and would be informed during the Pre-Trial Meeting as mentioned at **Para 2** above. In case facilities to conduct tests are not available in any Government laboratories (including DGQA/DRDO laboratories/other Government establishments), tests will be conducted in private laboratories in India.
13. **Qualified Vendor Representatives.** The representatives of vendors present during trials should have adequate knowledge about the equipment to give the complete details of the equipment including stripping and assembling, testing procedures, SMTs/STEs etc. Observations and recommendations will be conveyed to respective vendors and the vendors will sign for the same.
14. **Debriefing to Vendors.** After each stage of trials, debriefing of all vendors to inform them about the performance of all equipment (against the RFP parameters) being trial evaluated will be organised, in accordance with provisions of DAP-2020. Vendor representatives will be briefed about the performance of their equipment against the RFP parameters by the OIC Trial. These points will also be communicated to them in writing by the OIC Trial.
15. **Representations/ Requests.** Vendors will be required to forward observations, if any, on this communication, to OIC Trial and CD Directorate, within one week of receipt of the same. All queries, representations and requests related to the trial will be addressed in writing to the OIC Trial and will be replied to by the OIC Trial in writing. Both parties will endorse a copy of the correspondence to CD Directorate. Representations would be dealt as per the policy on 'Handling of Complaints' issue vide MoD ID No 1(6)/D(Acq)/13-Vol.III dt 21 Sep 15.

17. **Security Clearance.** A maximum of eight (08) representatives per OEM will be allowed to witness the trials. Vendors will intimate relevant details of their representatives who will attend the Pre-Trial Meeting at IHQ of MoD (Army), on intimation of compliance in TEC and for trials, minimum 30 days in advance of commencement of the trials for obtaining security clearance. The details of representatives who would attend the trials will be forwarded to OIC Trial. Non-receipt of details may result in delays in security clearance and will lead to non-attendance of the OEM representative during the Pre-Trial Meeting and Trials.

18. **Retention and Returning of Equipment.** The equipment of all the OEMs, whether compliant or otherwise, will be retained under the custody of the Trial unit/evaluating agency, till the commencement of CNC. Equipment of OEMs found non-compliant in General Staff Evaluation would be returned thereafter. On finalization of contract, equipment of other participating vendors may be returned, but equipment of the OEM with whom contract is concluded will be retained till the first lot of delivery, for purposes of comparison.

19. Any parameter which cannot be trial evaluated may be accepted based on certification by Government Accredited laboratory/NABL laboratory/OEM certification/Vendor Certification, as decided by Trial agency. The above trial methodology is only a broad based guideline. There may be some additional test that may be required to be carried at the locations identified by OIC Trial and would be informed during the Pre-Trial Meeting. The detailed trial directive/trial plan will be issued during the Pre-Trial Meeting.

**Annexure**  
(Refer Para 1 of Appx F of RFP)

**BROAD TRIAL PLAN: BUS (ELECTRIC)**

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
<b><u>ESSENTIAL PARAMETERS – ‘A’</u></b>					
<b><u>Operational Parameters</u></b>					
1.	1	<p><b><u>Structural Materials.</u></b> All parts used in body of vehicle shall be corrosion resistant. Rubber used for sealing of Glasses shall be of weather resistant EPDM rubber seals or superior quality seals. All body joints, front safety glass, rear safety glass, doors, windows and hatches should be so constructed such that it does not permit ingress of rain water and dust, in the fully closed condition in accordance to IS 11865/1992 (as amended) and IS : 11739 – 1986 respectively. Body insulation shall be provided in accordance to clause 3.8 or AIS-052 (Revision-1) : 2008.</p>	<p>NABL accredited/ Government Lab Certification</p>	<p>CTT</p>	<p>AIS-052(Rev 1): 2008fwg test reqd:-</p> <p>(i) Roll over test on body section AIS-031</p> <p>(ii) Stability test – Clause 6.2 of AIS-052 (Revision1)</p> <p>(iii) Water Proofing test-IS 11865-1992.</p> <p>(iv) Deflection test.</p> <p>(v) Joint Strength-Body panel joints requirement when subjected to force of 60% of tensile strength of weakest joint body panel.</p> <p>(vi) Design type approval for bus body is to be submitted by vendor.</p>

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
2	2	<p><b><u>Bus Body Structure.</u></b></p> <p>(a) The bus body structure and driver compartment will conform to requirements in AIS-031. The bus to have Monocoque/ Semi-Monocoque/ Ladder type frame with structural life up to service life of the vehicle confirming to norms of ARAI/ CIRT/ Similar government certifying agencies. All structural members to be fabricated out of steel as per specifications prescribed for the bus body. Rubber rails will be provided on either sides of the bus body.</p>	NABL accredited/ Government Lab Certification	CTT	AIS-031
		<p>(b) Rubber strips and plastic tape will be fixed between the structure and side panels to avoid metal to metal contact.</p>	NABL accredited/ Government Lab Certification	CTT	AIS-031
		<p>(c) <b><u>LED Destination Board.</u></b> Minimum two LED destination boards shall be provided with one in the front and one in the rear. Dimensions shall be in accordance to clause 2.2.15.3 of AIS-052 (Revision-1): 2008 (as amended). LED destination boards shall comply with requirements specified in IS: 16490 : 2016.</p>	NABL accredited/Government Lab Certification	CTT	(a) AIS-052(Rev 1): 2008 (b) IS-16490 : 2016

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
3	3	<b>Flooring of Bus Body.</b> The under frame of the bus will be covered with Aluminium alloy chequered plates of minimum 3mm thickness fixed over 15mm thick marine quality plywood. The floor to be tapering to enable accumulated water inside to be drained off. The entire Gangway will be anti skid with PVC flooring (Fire resistant) as per AIS-052.	NABL accredited/Government Lab Certification	CTT	AIS-052(Revision1) : 2008
4	4	<b>Interior Panelling.</b> Pre painted GI/ Steel/Fibre sheets or aesthetically suitable material will be used for interior panelling of the bus.	NABL accredited/Government Lab Certification	CTT	(a) AIS-052(Revision1) : 2008 (b) AIS-047/IS-15223 for interio fittings
5	5	<b>Seats and Seating Arrangements.</b> (a) Seating capacity : 40 (excluding driver & Co-Driver)).	Physical Check	CTT	
		(b) Driver and co-driver seat shall be individual seat. Driver Seat shall be provided with self-adjusting mechanism as per height of driver. Driver/ co-driver seat shall comply with the requirements specified in AIS-023.	NABL accredited/Government Lab Certification	CTT	(a) AIS-052(Revision1) : 2008 (b) AIS-016/ 2000. (c) AIS-023/IS-15546- for seats and their anchorages

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
		(c) Balance seats will be in double seat configuration on one side and on the other side it shall either be double seat configuration or continuous seat configuration (three passengers). Last row shall be continuous seat for five passengers. Dimensions of passenger seat shall be in accordance to clause 2.2.11.4 of AIS-052 (Revision-1) : 2008 (as amended).	NABL accredited/Government Lab Certification	CTT	(a) AIS-052(Revision 1) : 2008 (b) AIS-023
6	6	<b>Roof Grab Rails.</b> As per CMVR norms.	NABL accredited/Government Lab Certification	CTT	AIS-046 (Amdt No. 1 & 2)
7	7	<b>Doors.</b> (a) Emergency exit in the form of emergency door shall be situated in the vehicle as per clause 2.2.4.1 (amended) of AIS-052 (Revision-1) : 2008. The emergency door shall be capable of operation from both inside and outside when operated manually. Emergency door shall meet the dimensional requirements given in Para 2.2.4.13 and technical requirements of Para 3.4.5.1 of AIS-052 (Revision-1) : 2008 (as amended).	NABL accredited/Government Lab Certification	CTT	(a) AIS-052 (Revision-1) :2008 (as amended) (b) AIS-052 (Revision-1): 2008 (as amended)

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
		Marking of emergency exit shall be done in accordance to clause 3.4.5.4 of AIS-052 (Revision-1): 2008 (as amended). All emergency doors shall be provided with an audible device to warn the driver when the emergency doors are not surely closed, the requirement given in Clause 3.4.5.1.8			
		(b) One emergency exit with both sides opening facility to be provided to facilitate quick alighting in case of emergency. This door will be prominently identifiable from inside and outside the bus and will meet the dimensional requirement given in para 2.2.4.13 of AIS-052.	NABL accredited/Government Lab Certification	CTT	AIS-052 (Revision-1): 2008 (as amended)
		(c) All doors will be provided with suitable locking arrangements.	NABL accredited/Government Lab Certification	CTT	AIS-052 (Revision-1): 2008 (as amended)
		(d) Door shall be fitted with weather resistant EPDM rubber seals of suitable design to avoid dust and water ingress, in accordance to clause 3.4.3 of AIS-052 (Revision-1): 2008 (as amended).	NABL accredited/Government Lab Certification	CTT	(a) AIS-052 (Revision-1): 2008(as amended)  (b) IS-13942:1994

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
		(e) The structure of the door shall be able to withstand distortion due to forces induced during its operation and the operability of door components. The hinges and doors handles shall meet requirements as specified in IS13942:1994, as amended from time to time.	NABL accredited/Government Lab Certification	CTT	(a) IS-13942 :1994 (b) IS-14225 for door latches and hinges.
8	8	<b>Windows</b> (a) Fixed Window Panel with provision of hanging curtains on all windows will be provided.	NABL accredited/Government Lab Certification	CTT	(a) IS-13942 :1994 (b) IS-14225 for door latches and hinges.
		(b) Window glasses/glazing/frames to be as per Para 3.6 of AIS-052. In addition, all glasses including wind screen (front/rear) will be UV protected (tinted), laminated and conforming to latest CMVR provisions.	NABL accredited/Government Lab Certification	CTT	(a) AIS-052(Revision-1) : 2008(As amended). (b) IS-2553 Part-II. (c) IS-13944-1994
		(c) Window seals shall comply to requirements stipulated in clause 5.4 of AIS-068.	NABL accredited/Government Lab Certification	CTT	AIS-068 and window seals required following test. (i) Ozone Resistance test-ASTM C542. (ii) Heat Ageing Test-ASTM C542. (iii) Corrosion Resistance test.

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
9	9	<p><b>Cab Driver Compartment.</b> The cab will have the following features: -</p> <p>(a) Driver's work area shall be governed by requirements stipulated in clause 2.2.16 of AIS-052 (Revision-1) : 2008 (as amended).</p>	NABL accredited/Government Lab Certification	CTT	AIS-052 (Revision-1: 2008 (as amended)).
		<p>(b) Placement of Instruments panel, Shroud for Wiring harness, and HVAC shall be in accordance to clause 2.2.16.4.6, 2.2.16.4.7 and 2.2.16.4.9 of AIS-052 (Revision-1): 2008 (as amended) respectively.</p>	NABL accredited/Government Lab Certification	CTT	AIS-052 (Revision-1: 2008 (as amended)).
		<p>(c) <b>Controls, Tell-Tales and Indicators.</b> Control, tell-tales and indicators shall be provided in the bus as per requirements in AIS-071(Part 1) (Revision-1), Annexure-II. Symbol designated in Table A to N, P and R of AIS-071/Part 1) (Revision-1), Annexure-II for identifying a control, tell-tale or indicator. For hand-operated and foot-operated controls, applicable provisions of AIS-071(Part 2) will be provided.</p>	NABL accredited/Government Lab Certification	CTT	AIS-071 (Part-I) (Revision-I) ad AIS-071(Part-II)

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
		(d) <b><u>Dashboard Instruments &amp; Control System.</u></b> The Bus shall have ergonomically designed dash board moulded in polymeric material, with full instrumentation panel containing meters and gauges to indicate important parameters like air pressure in brake tanks, coolant temp, battery level, side indicators, head lights, hand brake. There should also be provision for interlock between exit/ entry door open and vehicle movement ie vehicle should not move if door is open.	NABL accredited/Government Lab Certification	CTT	AIS-052 (Revision-1): 2008 (as amended)
10	10	<b><u>Interior Luggage Carrier.</u></b> Integrated modular closed hat-racks with AC ducts, individual seat climate control facility and embedded reading lights to be provided.	NABL accredited/ Government Lab Certification	CTT	2.2.12 Cabin Luggage Rack of AIS-052 (Revision-1): 2008 (as amended)
11	11	<b><u>Vehicle Dimensions.</u></b> Minimum gangway width will not be less than 400 mm and width of the bus to be between 2300-2600 mm. Vertical space inside the body will not be less than 1905 mm measured from centre of the gangway to inside of the roof. The ground clearance will not be less than 180 mm as per ARAI norms. Floor height will be 850-950 mm.	NABL accredited/ government Lab Certification	CTT	IS-9435: 2004 (reaffirmed 2014)

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
12	12	<b>Bridge Classification.</b> The vehicle to be able to go across a Class 18 bridge and be transportable by broad gauge section of the railway with ODC clearance.	Physical Check	CTT	
13	13	<b>Additional Fitments</b>			
		(a) <b>Notice Board.</b> A Notice Board (Soft board covered with appropriate fabric) will be fixed at the rear of the driver seat. The board will be covered with a lockable hinged/sliding transparent door.	Physical Check	CTT	
		(b) <b>Luggage Hold Area/ Compartment.</b> Luggage holds areas/ compartments shall be provided at the rear or at the sides, or both, with sufficient space and size, and shall be rattle proof, dust proof with safety arrangements. Total space shall be not less than 1.025 m <sup>3</sup> (0.025m <sup>3</sup> per passenger).	NABL accredited/ government Lab Certification	CTT	AIS-052(Revision-1): 2008 (As amended)
		(c) <b>Rear View Mirror.</b> Outside Rear View Mirrors (ORVM) will be provided with integrated indicators. Mirrors will be suitably positioned to minimise blind spots.	NABL accredited/ government Lab Certification	CTT	(a) AIS-052 (Revision-1): 2008 (as amended) (b) AIS-001 & AIS- 002

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
		(d) <b>First Aid Box.</b> First Aid Kits containing items notified under Rule 138 (4) (d) of CMVR 1989 shall be provided. The First aid kits shall be secured against tampering and shall be kept in lockers or behind breakable glass. The location shall be marked clearly.	NABL accredited/ government Lab Certification	CTT	
		(e) <b>Audio System.</b> A Branded audio system with FM facility, USB, Blue Tooth, Auxiliary connectivity and set of six speakers (50 Watts) will be provided.	NABL accredited/ Government Lab Certification	CTT	(a) OEM specification.  (b) AIS-052 (Revision-1): 2008(as amended)
		(f) <b>Emergency Switch.</b> The bus will be provided with an emergency declaration switch. This switch will activate an audio hooter and red blinking lights inside and outside the bus to declare an emergency and facilitate speedy evacuation of the passengers.	NABL accredited/ Government Lab Certification	CTT	AIS-052 (Revision-1): 2008 (as amended)
		(g) <b>Bumper.</b> The front and rear bumpers to be provided as per CMVR norms.	NABL accredited/ Government Lab Certification	CTT	AIS-052 (Revision-1): 2008 (as amended)

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
		(h) <b>Windshield.</b> Single piece, curved, laminated, tinted & UV protected windshield will be provided.	NABL accredited/ Government Lab Certification	CTT	(a) IS2553(Part-2)-1992(Latest). (b) IS-15802:2008.
		(j) <b>Towing / Lashing Arrangement.</b> Suitable towing arrangements will be provided in the front. Lashing hooks will be provided on sides of the vehicle.	NABL accredited/ Government Lab Certification	CTT	As per CMVR & IS 9760-Ring Type.
		(k) <b>Vehicle Reverse Parking Alert.</b> A system shall be provided to alert/ display the driver about obstacles on rear side of vehicles during parking in reverse gear. It shall provide audible and visual information and warning Requirements of the system shall be in accordance to Annexure-6 of AIS-145 or superior to that.	NABL accredited/ Government Lab Certification	CTT	Annexure-6 of AIS-145 or superior to that.
		(l) <b>Glove Compartment.</b> A lockable Glove Compartment for keeping vehicle documents will be provided.	Physical Check	CTT	OEM Specification

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
		(m) <b>Climate Control/HVAC.</b> Environmental control/HVAC will be provided in the bus with arrangements for both cooling and heating. A temperature of 25°C + 5°C up to an ambient temperature of 45°C and 15°C drop in temperature for ambient temperature above 45°C be achievable. Similarly, a temperature of 25°C + 5°C up to an ambient temperature of 0°C and 15°C rise in temperature for ambient temperature below 0°C will be achievable. Provision of vents will be made for each row of seats.	NABL accredited/ Government Lab Certification	CTT	Type testing as per Specification  CQAE/TS/1548/b issued by CQA (EE)
14	14	<b>Energy Storage System(REESS).</b> (a) The vehicle shall be fitted with Rechargeable Electrical Energy Storage System (REESS) that provides electric energy for electric propulsion. It shall meet the requirements of construction and functional safety as per AIS-038(Revision-1):2015 and clause 6.0 of AIS-156.	NABL accredited/ Government Lab Certification	CTT	(a) Requirement of construction and functional safety as per clause 6.0 of AIS-038 (Rev-1) : 2015 and AIS-056.  (b) AIS-041 (Rev 1) : 2015 Electric Power Train vehicles measurement of net power and the maximum 30 minutes power.
		(b) <b>Electric Safety.</b> Electric safety shall be provided in the vehicle in accordance to Clause 5.0 of AIS-156.	NABL accredited/ Government Lab Certification	CTT	(c) Vehicle specification specified at Annexure-I of AIS-038 (Rev1) : 2015 and AIS-156.
		(c) <b>Functional Safety.</b> Requirements of functional safety as mentioned in Clause 5.3 of AIS-156 to be provided in the vehicle.	NABL accredited/ Government Lab Certification	CTT	

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
		(d) <b>Protection Against Water Effects.</b> Protection against washing, flooding and heavy rainstorm shall be provided in accordance to Clause 5.5 of AIS-156.	NABL accredited/ Government Lab Certification	CTT	(d) REESS manufacturer to submit Technical specification of REESS specified at Annexure-II of AIS-038 (Rev 1) : 2016 and AIS-156.  (e) Technical requirement specific to Electric Power Train Vehicle are as per Table 13 of AIS-007 (Rev 5).
15	15	<b>Motor.</b>	NABL accredited/ Government Lab Certification	CTT	
		(a) <b>Type of Motor.</b> A suitable Permanent Magnet Synchronous Motor of not less than 200 kWh shall be provided which produces Torque not less than 3000 Nm.			
		(b) <b>Range.</b> Electric range shall be not less than 250 Kms.	Physical Check	CTT	AIS-040 (Rev 1) : 2015 (Amendment No 1&2)
<b>Technical Parameters</b>					
16	16	<b>Battery</b>	NABL accredited/ Government Lab Certification	CTT	(a) AIS-038 (Rev 2) (Amendment 2)
		(a) <b>Battery Capacity.</b> Not less than 200 KW.			

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
		(b) <b><u>Service Life.</u></b>  (i) <b><u>Battery pack &amp; Motor life.</u></b> Not less than 4 years/ 3,00,000 Kms whichever is earlier.	OEM Certification	CTT	(b) AIS-039.
		(ii) <b><u>Battery pack &amp; Motor Warranty.</u></b> Not less than 4 years/ 3,00,000 Kms.	OEM Certification	CTT	(c) AIS-040.
		(c) <b><u>Battery Cooling.</u></b> Adequate arrangement for cooling of the batteries to be made to ensure uninterrupted operation of the bus to its full capacity of range at full load.	NABL accredited/ Government Lab Certification	CTT	(d) AIS-041.
17	17	<b><u>Operating Temperature Range.</u></b> The vehicle will be designed to operate in the temperature range of 0°C to 45°C.	Physical Check	CTT	(a) OEM Certification to be provided for operating temperature range of 0°C to 45°C.  (b) Physical Check of the vehicle will be carried out in the temperature range as available during conduct of trials.
18	18	<b><u>Power Train.</u></b> The vehicle will have Automatic Transmission System.	NABL accredited/Government Lab Certification	CTT	

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
19	19	<b><u>Brakes.</u></b> (a) <b><u>Service Brakes.</u></b> Disc/Drum brakes with Anti-lock braking system (ABS) will be provided. Braking efficiency to conform to latest IS applicable at the time of trials.	NABL accredited/Government Lab Certification	CTT	(a) Para 3 and Para A5.0 of Annexure A of AIS-049 (Rev 1) : 2016. The requirements of electric re-generative braking system for electric power train vehicles.  (b) IS-11852 (Part 1-9) & IS-14664 for evaluating performance requirement.
		(b) <b><u>Parking Brake.</u></b> Hand operated, pneumatic / spring actuated parking brake system will be provided. The brake will be capable of holding the vehicle at a Gradient of not less than 25 <sup>0</sup> with full payload.	NABL accredited/Government Lab Certification	CTT	
20	20	<b><u>Steering.</u></b> Vehicle to have Right hand drive. Adjustable, Tilt and Telescopic hydraulic power steering to be provided.	NABL accredited/Government Lab Certification	CTT	(a) IS-11948 : 2012 for steering effort and rolling radius.  (b) IS-12222 : 2011 for TCD and TCCD.
21	21	<b><u>Suspension.</u></b> The Bus shall be fitted with Air Bellow Suspension at both Front and Rear. The suspension system shall be fitted with shock absorbers, suitable for trouble free operation and jerk free comfortable ride.	NABL accredited/ Government Lab Certification	CTT	

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
22	22	<b><u>Performance Capabilities in Fully Laden Condition.</u></b>	NABL accredited/ Government Lab Certification	CTT	IS :11877 : 1986 (Reaffirmed 2010)
		(a) Maximum speed on Highway : Not less than 65 Km/hr			
		(b) Gradability : Not less than 17% (9.65°) with full payload	OEM Certification	CTT	
		(c) Turning Circle Diameter : Not more than 24,000 mm	NABL accredited/ Government Lab Certification	CTT	IS-12222 : 2011 for TCD and TCCD.
		(d) Angle of approach: Not less than 9°	NABL accredited/ Government Lab Certification	CTT	IS 12218 : 1987 (Reaffirmed 2014)
(e) Angle of departure : Not less than 9°	NABL accredited/ Government Lab Certification	CTT			
23	23	<b><u>Wheels and Tyres.</u></b> The tyres to be of standard tread pattern. A spare wheel will be provided.	NABL accredited/ Government Lab Certification	CTT	(a) IS 15636 (b) AIS 044. (c) BIS Certification for tyres.

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
24	24	<b><u>Electrical System.</u></b>	NABL accredited/ Government Lab Certification	CTT	AIS-038 (Rev 2)
		(a) <b><u>System Voltage.</u></b> 24 Volts DC Negative ground.			
		(b) <b><u>Battery.</u></b> 24 Volts Maintenance free battery.	OEM Certification	CTT	
		(c) <b><u>Wiper Motor.</u></b> Minimum two speed wiper motor will be provided.	NABL accredited/ Government Lab Certification	CTT	AIS 011: 2001
		(d) <b><u>Wind Screen Washing.</u></b> A mechanism for wind screen washing will be provided.	NABL accredited/ Government Lab Certification	CTT	AIS 011: 2001
		(e) <b><u>Demister.</u></b> Demisting of the windscreen to be possible through the HVAC system.	NABL accredited/Government Lab Certification	CTT	AIS 084 : 2008
(f) <b><u>Electric Cables.</u></b> Electric cables used in bus shall conform to the requirements mentioned in Clause 5.1 of AIS-052 (Revision-1) : 2008 (as amended). Standards of electrical wiring mentioned in clause 5.6 of AIS-052 (Revision-1):2008 (as amended) to be adhered to. Safety requirements as stipulated in clause 5.4 of AIS-052 (Revision-1) : 2008 (as amended). Fuse and terminal connectors shall be	NABL accredited/Government Lab Certification	CTT	AIS-052 (Rev 1) : 2008 (as amended)		

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
		in accordance to clause 5.2 and 5.3 respectively of AIS-052 (Revision-1) : 2008 (as amended).			
25	25	A battery isolating switch to be incorporated in the electrical system to avoid accidental damage to the battery and electrical system.	NABL accredited/Government Lab Certification	CTT	AIS-052(Revision-1) : 2008 clause 5.5.4
26	26	<p><b><u>Lighting and Fitments.</u></b></p> <p>(a) <b><u>External Lighting.</u></b> External lighting and light-signaling devices of the bus shall comply with the Rules laid down under the Central Motor Vehicle Rules, 1989, and as amended from time to time. All lighting and light-signaling devices shall be Type Approved.</p>	NABL accredited/Government Lab Certification	CTT	
		(b) <b><u>Internal Lighting.</u></b> Lighting and light-signaling devices shall provide adequate illumination inside the bus for the safe operation by the driver and the passengers, during darkness and other conditions of reduced visibility.	Physical Check	CTT	

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
		(c) Lighting to be fitted in accordance to Chapter 4 of AIS-052 (Revision-1) : 2008 (as amended).	NABL accredited/Government Lab Certification	CTT	(a) Installation of lighting and light signaling devices as per AIS 009/AIS 008.  (b) AIS-052 (Revision-1) : 2008 (as amended) .  (c) Performance requirements for lighting and signaling devices as per AIS-010 and AIS-012.
		(d) In addition to mandatory lighting as per CMVR norms, following lightings shall also be provided :-  (i) Dash Board Tell tale lighting/ Control lighting. (ii) Driver Cabin lighting. (iii) Passenger Compartment lighting. (iv) Luggage hold area lighting. (v) Destination panel lighting.	NABL accredited/Government Lab Certification	CTT	
		(e) The luminance of all lamps provided for lighting instruments and controls inside the cabin shall be at least 2 cd/m <sup>2</sup> . The luminous flux of all lamps provided for cabin lighting to light up equipment components and to read, will not be less than 50 lux and will not be more than 150 lux when measured at 500 mm above the passenger's seat base.	NABL accredited/Government Lab Certification	CTT	

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
		(f) A socket for taking power for lighting other area of bus or nearby to bus shall be provided with a cable of length 5 meters.	Physical Check	CTT	
		(g) Two convoy lights shall be provided in the front of the vehicle. When the convoy light, all other lightings shall be switched off automatically, except emergency lamps.	Physical Check	CTT	
<b><u>Maintainability &amp; Ergonomic Parameters</u></b>					
27	27	<b><u>Maintenance.</u></b> All assemblies like motor, axle, suspension, wheels, brakes etc will be designed and fitted in such a way that these accessories are within reach for maintenance and replacement.	OEM Certification	CTT	
28	28	<b><u>Tool Box, Jack and Spare Tyre.</u></b> Tool Box, Jack and spare tyre will be provided in the bus at a suitable location.	Physical Check	CTT	
29	29	<b><u>Weather Proofing.</u></b> The vehicle will be painted with corrosion resistant paint.	NABL Accredited/Government Lab certification	CTT	Type Approval
30	30	<b><u>General.</u></b> The bus (Electric) will meet all other mandatory safety, technical and passenger comfort requirements as per latest CMVR applicable to Buses.	OEM Certification	CTT	

S/ No	Appx A Para Ref	Parameters (As per Appendix A to RFP)	Broad Trial Plan	Responsibility	Remarks
31	31	<b><u>Fire Detection and Suppression System (FDSS).</u></b> Fire Detection and Suppression System (FDSS) shall be fitted with complying with AIS-135:2016, as amended from time to time.	NABL Accredited/Government Lab certification	CTT	AIS-135:2016
32	32	Dust and water ingress protection shall comply with specifications IS/IEC 60947-1:2004 in conjunction with IS/IEC 60529:2001, 'nodes' IP54.	NABL Accredited/Government Lab certification	CTT	IS/IEC 60947-1:2004 in conjunction with IS/IEC 60529:2001, 'nodes' IP54
33	33	Vehicle shall meet the requirements of EMI/EMC as per AIS-004 (as amended).	NABL Accredited/Government Lab certification	CTT	AIS 004

**Note: -**

1. **Trialability/ Testing of Parameters.** Systems/ components fitted in the vehicle shall meet the applicable IS/AIS/JSS standards and tested in accredited test labs. For applicable components fitted in vehicle where Type Approval is mandated, same shall be tested in accredited labs in accordance with applicable standards.
2. All standards referred to will be the standards as applicable at the time of submission of bids by the Vendor.
3. NABL/Government Accredited Lab Certification wherever mentioned, shall be submitted along with test results.
4. The user reserves the right to carry out Physical checks on parameters for which certification is required or ask for certification at later stage though the method of trial evaluation has been mentioned as Physical Check in the broad trial plan.
5. Any additional aspects to be checked or reduction in tests, during Evaluation will be intimated during Pre-Trial meeting.

**Appendix G**  
(Refers to Para 39 of RFP)

**DRAFT ATP GUIDELINES**

1. Bidders to submit draft ATP, along with their Technical Bid.
2. Draft Acceptance Test Procedure for the Equipment/ System should mainly consist of the following: -
  - (a) **Scope & Introduction.** Includes the scope, introduction & propose of the document and general information about the equipment.
  - (b) **Brief description of the Equipment/ System.** Brief description of the equipment/ system be highlighted indication the salient features, Equipment/ System configuration, interfaces involved and its compatibility and role in the main system where it is intended to be used.
  - (c) **Safety/ Security aspects, if any.**
  - (d) **Technical Specifications.** TS of the equipment be indicated along with dimension, weight of the equipment etc. operational requirements & Pictorial representation of the equipment/ system be provided under this section.
  - (e) **Reference documents including list of drawings, related Standards, Specifications etc.** Includes Reference documents/ drawings of the equipment, Standards/ Specifications up to which he equipment/ system is complied.
  - (f) **Bill of Materials.** BoM as per the following format be included.

S. NO	Item Name/ Description	Part Number	NSN Number	Drawing Number	Manufacturer	Schematic Reference	Standard of Reference	Qty Nos	Mill/ Industrial/ Commercial

- (g) **Test Instruments / Accessories required.** Test Instruments/ Accessories required for conduct of ATP be mentioned along with Part number, Make/ Model etc.
- (h) **Qualification/ Environmental Tests.** Applicable class from relevant JSS, as per RFP for Environmental testing be mentioned along with test severities and procedures to be followed for the conduct of the test. Pre, in-situ & Post Performance test to check the performance of the equipment be included.
- (j) **Acceptance/ Performance Tests.** Includes the Visual, Electrical & Functional tests. Functional Test procedure along with diagram showing Test set up to be mentioned. Final acceptance/ Performance checks comes under this section. Tests

can be carried out under lab & field conditions needs to be mentioned separately.

(k) **Applicability of ESS/ Endurance test.** ESS procedure to be followed be mentioned and the procedure for carrying out the Endurance test be included.

(l) **Quality Audit points/ Checks/ Methodology including Real Time/ Online Audit activities & list of critical processes.** Process audit methodology to be carried by mentioned.

(m) **Quality Audit Flow Chart/ Process Monitor Points.** Mutually agreed Audit flow chart be mentioned by quoting Relevant ISO standards.

(n) **Operational checks/ Tests.** Includes Quick checks/ Tests with ATE/BITE/Processor based Auto Diagnostic checks on the store, if equipped with, before release of the store to the Consignee.

(o) **Test & Measurement Record (TMR).** TMR sheet with expected output be mentioned.

(p) **Acceptance criteria including Sampling Plan, if any.** Acceptance criteria be mentioned under this section.

#### **Note**

(i) Weight and dimension should have tolerance.

(ii) Weight of the system shall specify along with power systems including Genset/ UPS wherever required.

(iii) Sampling plans to be invoked wherever feasible.

(iv) Certain test requires permission from authorities such as long range comn, jamming tests, detection of drones, use of DEW etc. Necessary permissions need to be obtained by SELLER.

**Appendix H**  
(Refers to Para 12 and 60 of RFP)

**COMMERCIAL CLAUSES**

**1. Payment Terms**

**1.1 INCOTERMS for Delivery**

1.1.1 The delivery of goods will be based on DDP INCOTERMS-2020 with ultimate consignee of main equipment as given below: -

Ser No	Consignee Locations	Quantity Buses (Electric) & Fast Chargers (T <sub>0</sub> to T <sub>0</sub> + 6) months				Quantity Buses (Electric) & Fast Chargers (T <sub>0</sub> +7 to T <sub>0</sub> +12 ) months				Total Quantity Buses (Electric) & Fast Chargers		Remarks
		Vehs			Fast Charger	Vehs			Fast Charger	Vehs	Fast Charger	
		IA	IN	IAF		IA	IN	IAF				
(a)	CVD, Delhi Cantonment	05	02	08	12	08	-	14	-	37	12	T <sub>0</sub> is the date of release of advance payment by the buyer to the seller.
(b)	COC, Dehu Road	08	-	05	11	11	-	05	-	29	11	
(d)	OD, Avadi	06	-	03	08	09	-	06	-	24	08	
(e)	OD, Allahabad	04	-	02	06	06	-	01	-	13	06	
(f)	Vehicle Depot, Panagarh	03	-	02	03	-	-	-	-	05	03	
(g)	Material Organisation, Mumbai	-	02	-	01	-	-	-	-	02	01	
(h)	Material Organisation, Visakhapatnam	-	-	-	01	-	02	-	-	02	01	
(j)	Material Organisation, Kochi	-	01	-	01	-	-	-	-	01	01	
<b>Total</b>		<b>26</b>	<b>05</b>	<b>20</b>	<b>43</b>	<b>34</b>	<b>02</b>	<b>26</b>	<b>-</b>	<b>113</b>	<b>43</b>	

1.1.2 **Consignee Details of Technical Document.** One copy of User Hand Book should be supplied alongwith the Buses (electric) and fast chargers respectively. The consignee details for seven (07) additional copies of User Hand Book of Buses (electric), four (04) additional copies of User Hand Book of fast chargers and four (04) x CD of Buses (electric) and fast charger should be delivered to; Colonel Transport, DGST (ST-11), Room No -323, Sena Bhawan, Rajaji Marg, New Delhi 110005.

1.1.3 **Location for Installation of Fast Chargers.** The Fast Chargers will be installed by the OEM/ Seller at nominated locations as given below: -

S No	Station	IA		IAF		IN	
		Station	No of Fast Chargers	Station	No of Fast Chargers	Station	No of Fast Chargers
1	Pune	1	1	1	1	-	-
2	Kirkee	1	2	-	-	-	-
3	Bengaluru	1	2	1	1	-	-
4	Bhopal	1	1	-	-	-	-
5	Hyderabad/ Dundigal	1	2	1	1	-	-
6	Ahmednagar	1	1	-	-	-	-
7	Nasik	1	1	-	-	-	-
8	Kolkata	1	1	-	-	-	-
9	Delhi	1	3	1	3	1	1
10	Lucknow	1	1	-	-	-	-
11	Jabalpur	1	1	-	-	-	-
12	Bareilly	1	1	-	-	-	-
13	Mhow	1	1	-	-	-	-
14	Gopalpur	1	1	-	-	-	-
15	Allahabad	1	1	-	-	-	-
16	Dehradun	1	1	-	-	-	-
17	Wellington	1	1	-	-	-	-
18	Kharakwasla	1	1	-	-	-	-
19	Gaya	1	1	-	-	-	-
20	Chandigarh	-	-	1	1	-	-
21	Agra	-	-	1	1	-	-
22	Jamnagar	-	-	1	1	-	-
23	Kalaikunda	-	-	1	1	-	-
24	Nagpur	-	-	1	1	-	-
25	Mumbai	-	-	-	-	1	1
26	Vishakhapatnam	-	-	-	-	1	1
27	Kochi	-	-	-	-	1	1
28	Prayagraj	-	-	1	1	-	-
29	Gandhinagar	-	-	1	1	-	-
30	Trivendrum	-	-	1	1	-	-
31	Gwalior	-	-	1	1	-	-
<b>Total</b>		<b>19</b>	<b>24</b>	<b>18</b>	<b>15</b>	<b>04</b>	<b>04</b>

1.2. **Currency of Payment.** Indian bidders should submit their bids in Indian Rupees.

### 1.3 **Contract Price and Requirement of Bank Guarantees.**

1.3.1 **Total Contract Price.** The Total Contract Price will be the final price negotiated by CNC including taxes and duties applicable at the time of signing of Contract.

1.3.2 **Base Contract Price.** The Base Contract Price will be considered as Total Contract Price excluding taxes and duties applicable at the time of signing of Contract.

1.3.3 **Bank Guarantee(s).** For the purpose of payment of Advances to the Bidder and submission of various Bank Guarantees by the Bidder i.e Advance Payment Bank Guarantee (APBG), as applicable, Base Contract price will be considered. For Performance cum Warranty Bank Guarantee (PWBG), Total Contract Price including taxes and duties is to be considered. The prescribed format of the Advance Payment Bank Guarantee (APBG) is placed at **Annexure II to Appendix G.**

1.3.4 All Bank Guarantee(s) requirements viz Advance Payment Bank Guarantee (APBG), Performance-cum-Warranty Bank Guarantee (PWBG), , Performance Bank Guarantee (PBG) etc are to be submitted as per Indian Public or Private Scheduled Commercial Bank.

1.4 **Payment to Indian Bidders.** The schedule for payments will be based on the Buyers requirements, enumerated at succeeding Paragraphs. The summary of delivery schedule, payments to be made and schedule of submission/release of Advance Bank guarantee (s), as applicable, is specified at **Annexure V to this Appendix.**

1.4.1 **Advance Payment.** **Fifteen (15) %** of the **Base Contract Price** shall be paid within thirty (30) days of submission of claim and a Bank Guarantee for the equivalent amount, subject to correction and acceptability of the documents submitted. The prescribed format of the Advance Payment Bank Guarantee (APBG) is placed at **Annexure II to this Appendix.** The Advance Payment Bank Guarantee (APBG) will deemed to be proportionately and automatically reduced until full extinction along with and prorate to value of each delivery, as evidenced by corresponding copy of document proving delivery and invoices of goods/services supplied/provided. The date of delivery would be reckoned from the date of release of Advance payment by the Buyer to the Seller (T<sub>0</sub>), provided the Seller submits the documents mandated by the DAP for release of advance by the Buyer within 45 days of signing of contract. In the event of the Seller not submitting the said documents within 45 days of signing of contract, the period between the 45<sup>th</sup> day and actual submission of documents will be excluded from the actual date of advance payment to arrive at the delivery date.

1.4.2 **On Dispatch.** **Sixty (60) %** of the **Base contract price** of all deliverables (excluding training cost), 100% FTI and reimbursement of 100% taxes and levies on pro-rata basis shall be paid on proof of dispatch of deliverables to the consignee and on production of an inspection note issued by

the buyer designated inspection agency. Number and date of the Railway/Road/Air Transport receipt under which the deliverables charged for in the bill are dispatched by rail/road/Air and the number and date of letter with which such receipt is forwarded to the consignee, should be quoted on the bill. The payment will be made by PCDA/CDA through cheque/Electronic Fund Transfer (EFT) on submission of following documents: -

1.4.2.1 Ink-signed copy of Seller's bill.

1.4.2.2 Ink-signed copy of Commercial invoice.

1.4.2.3 The relevant Transport Receipt.

1.4.2.4 Inspection Acceptance Certificate of Buyer's QA agency demonstrating compliance with the technical specifications of the contract.

1.4.2.5 Packing List.

1.4.2.6 Certificate of Origin.

1.4.2.7 Claim for statutory and other levies to be supported with requisite documents/GST invoice (with QR code, when made applicable)/proof of payment, as applicable.

1.4.2.8 Exemption certificate for taxes/duties, if applicable.

1.4.2.9 Warranty certificate from the SELLER.

1.4.3 In case of failure of the Seller to deliver the deliverables to the Buyer or inordinate delay in the said delivery leading to Termination of the Contract in accordance with Article 22A.1 of SCD, the SELLER will be liable to return payments received against dispatch.

**1.4.4 On Final Acceptance and Installation/Commissioning (if applicable)**

The remaining **Twenty Five (25) %** of the **Base Contract Price** of deliverables (excluding training cost) shall be paid within thirty (30) days of submission of the Acceptance Certificate & Certified Receipt Voucher (CRV) issued by the Buyer and other relevant documents as mentioned above for final payment, but such payments will be subject to the deductions of such amounts as the Seller may be liable to pay under the agreed terms of the Contract. The concerned PCDA/CDA will release the payment through cheque/EFT.

**1.4.5 Part-Dispatch/ Part-Shipment.** Part-dispatch or part-shipment of goods is permitted and corresponding payment will be released to the Seller, subject to quantity not less than three (03), for a particular consignee location is despatched/ shipped. For consignee locations, where the quantity is less than three (03) then the applicable quantity/ balance quantity as per table at Para 1.1.1 of this Appendix could be despatched. Transshipment is not permitted for deliverables.

**1.4.6. Payment for Training.** **85% payment (including 100% taxes/ levies)** for training of Operators and DGQA personnel will be done after completion of training as given in **Para 16** of RFP. Vendor will also furnish training completion certificate from buyer/ its representative, prior to payment for training.

1.4.7 **Payment of Taxes and Duties.** Payment of taxes, duties and statutory levies will be made on submission of requisite documentary proof to Paying authority. Reimbursement of taxes and duties will be as per rates and amounts indicated in the commercial bid/contract or as per actuals whichever is lower.

1.4.8 **Exchange Rate Variation.** Exchange Rate variation shall be applicable for Rupee contracts with Indian Vendors, based on RFPs issued under all categories of capital acquisitions mentioned at Para 8 to 12 of Chapter I of DAP. The indigenous & import components as also the various currencies (of the import components) for ERV purposes, must be determined in advance. The guidelines on protection of Exchange Rate Variation are given at **Annexure I to this Appendix.**

2. **Performance-cum-Warranty Bank Guarantee Clause.** A Performance-cum-Warranty Bank Guarantee (PWBG) of **3 % (or as applicable during signing of contract)** of value of the Total Contract Price including taxes and duties would be furnished by the Bidder in the form of a Bank Guarantee to sequentially act as Performance Bank guarantee till the delivery and as Warranty Bank Guarantee on delivery. The PWBG shall be submitted by the Bidder within one month of signing of contract and shall be valid for a period, until three months beyond the warranty period, as specified in the RFP. If at any stage, the Performance Guarantee is invoked by the Buyer either in full or in part, the Bidder shall make good the shortfall in PWBG within 30 days by an additional Bank Guarantee for equivalent amount. In the event of failure to submit the required Bank Guarantee against invoked Performance Guarantee, equivalent amount will be withheld from the next stage payment till the shortfall in the Bank Guarantee is made good by the Bidder. The prescribed format of the Performance-cum-Warranty Bank Guarantee is placed at **Annexure III to this Appendix.**

3. **Inspection.** Pre Dispatch Inspection (PDI) would be at the discretion of the Buyer. In addition Joint Receipt Inspection (JRI) will also be carried out. If it is PDI, the Bidder should intimate at least 45 days prior to the day when the equipment is to be offered for PDI to enable Buyer's QA personnel to be available for inspection. All the expenses towards PDI will be borne by the Bidder except transportation and accommodation of Buyer's PDI team, which will be deputed at Buyer's expense. In case of rejection of Goods during PDI, re-PDI will be undertaken at Bidder's premises at Buyer's sole discretion. All expenses including transportation and accommodation of Buyer's PDI team will be borne by the Bidder. Towards this, the expenses towards transportation and accommodation of Buyer's PDI team will be initially done by the Buyer and subsequently reimbursed by the Bidder either by remittance or by recovery from the Balance Payment/PWBG. In the event of a failed PDI, the Bidder shall consult the Buyer for rescheduling re-PDI. In case of JRI, the representative of the Seller may be present for inspection after the equipment reaches the concerned destination. The Seller would be informed of the date for JRI. The JRI should be completed within **30 days** of receipt of deliverables at respective Depot referred at Para 1.1 above. **The date of completion of JRI and the date from which warranty is applicable (duly endorsed by representative of both Buyer & Seller) should be mentioned in respective log book and User Hand Book of the main equipment and accessories.**

4. **Liquidated Damages (LD).** In the event of the Bidder's failure to submit the Documents, supply the stores/ goods, perform services, conduct trials, installation of equipment, training and MET as per schedule specified in this contract, the BUYER may, at

his discretion withhold cost of the specific lot/batch or 1% of the Project cost, whichever is higher, until the completion of the contract. The BUYER may also deduct from the SELLER as agreed, liquidated damages to the sum of **1/100** of the **delay percentage** {Delay percentage = (Period of Delay in Delivery in Weeks) x 100 / (Delivery Period in weeks as per contract)} of the Base Contract Price of the delayed/ undelivered stores/ services mentioned above for every week of delay or part of a week, subject to the maximum value of the Liquidated Damages being not higher than **10%** of the contract price of the value of delayed stores/ services (Any extension given by the Buyer for delay attributable to Buyer or Force Majeure Clause to be factored in delivery period).

5. **Denial Clause.** In case the delay in delivery is attributable to the Seller or a non-force majeure event, the Buyer may protect himself against extra expenditure during the extended period by stipulating a denial clause (over and above levy of LD) in the letter informing the Seller of extension of the delivery period. In the denial clause, any increase in statutory duties and/or upward rise in prices due to the Price Variation Clause (PVC) and/or any adverse fluctuation in foreign exchange are to be borne by the Seller during the extended delivery period, while the Buyer reserves his right to get any benefit of downward revisions in statutory duties, PVC and foreign exchange rate. Thus, PVC, other variations and foreign exchange clauses operate only during the original delivery period. The format for extension of delivery period/ performance notice under the Denial clause is at **Annexure IV to this Appendix.**

**Annexure I to Appendix H**  
(Refers to Para 1.4.9 of Appendix H)

**GUIDELINES OF PROTECTION OF EXCHANGE RATE VARIATION IN CONTRACTS**

1. Parameters to be kept in view while formulation ERV Clause.

(a) In contracts with Indian Vendors in all categories of capital acquisitions where there is an import content, ERV clause will be provided. However, ERV clause shall not be applicable to contracts in following conditions:-

(i) The delivery period is less than one year; or

(ii) The rate of exchange variation is within the band of +/- 2.5%.

(b) ERV clause will be framed according to the specific requirements of the contract. While calling for information at the RFP stage/formulation of ERV clauses in the contracts, the following factors are to be taken into consideration depending upon the requirements of the individual contracts:-

(i) Year wise and major currency wise import break up is to be indicated.

(ii) Detailed time schedule for procurement of imported material/Services and their value at the FE rates adopted for the contract is to be furnished by the vendor as per the format given below:-

YEAR	TOTAL COST OF IMPORTED MATERIAL/SERVICES (In rupees)	FE CONTENT-OUT FLOW (equivalent in rupees ₹ in crore)			
		DOLLAR DENOMINATED	EURO DENOMINATED	POUNDS DENOMINATED	OTHER CURRENCIES DENOMINATED (as applicable)

(iii) ERV clause will not be applicable in case delivery periods for imported content are subsequently to be refixed/extended unless the reasons for delivery period extension are attributable to the buyer.

(iv) For purposes of ensuring uniformity, the Base Exchange Rate on the ERV reckoning date will be adopted for each of the major foreign currencies. The Base Exchange Rate will be the BC Selling Rate of the Parliament Street

Branch of State Bank of India, New Delhi. The ERV reckoning date will be the last date of submission of commercial bids as per RFP. In cases where Option Clause is exercised, the date of reckoning of ERV will be the last date of submission of bids for the RFP of the Original Procurement Case.

(v) ERV clause in the contract is to clearly indicate that ERV is payable/ refundable depending upon exchange rate as prevalent on the date of transaction with reference to Base Exchange Rate on the ERV reckoning date.

(vi) Other issues which are peculiar to the contract.

## 2. **Methodology For Claiming ERV**

“The prices finalised in the contract are based on the base exchange rates indicated in the contract. The year-wise amount of foreign exchange component of the imported items as indicated in the contract shall be adjusted for the impact of exchange Rate Variation of the Rupee based on the exchange rate prevailing on the date of each transaction, as notified by the SBI, Parliament Street Branch, New Delhi. The impact of notified Exchange Rate Variation shall be computed on an yearly basis for the outflow as tabulated in Annexure..... (The table at Para 1(b) (ii) is to be an Annexure to the contract) and shall be paid/refunded before the end of the financial year based on the certification of Finance Head of the concerned Division.....”.

3. Paying authority is to undertake a pre-audit of the documents before payment.

4. Documentation for Claiming ERV. The following documents would need to be submitted in support of the claim on account of ERV:-

- (a) A bill of ERV claim enclosing worksheet.
- (b) Banker's Certificate/debit advice detailing Foreign Exchange paid and Exchange rate as on date of transaction.
- (c) Copies of import orders placed on the suppliers.
- (d) Invoice of supplier for the relevant import orders.

**Annexure II to Appendix H**  
(Refers to Para 1.3.3 and 1.4.1 of  
Appendix H)

**BANK GUARANTEE FORMAT FOR ADVANCE**

To

The \_\_\_\_\_  
Ministry of \_\_\_\_\_  
Government of India

\_\_\_\_\_ (complete postal address of the beneficiary)

1. "Whereas President of India represented by the \_\_\_\_\_ Ministry of \_\_\_\_\_ Government of India (hereinafter referred to as BUYER) have entered into a Contract \_\_\_\_\_ No. \_\_\_\_\_ (No. of Contract), dated \_\_\_\_\_ (Date of Contract) with M/s \_\_\_\_\_ (Name of SELLER) (referred to as SELLER) and whereas according to the said Contract the BUYER has undertaken to make an advance payment of Rs/ US \$/Euro/PS £/Yen/AUD/SGD \_\_\_\_\_ being \_\_\_\_\_ payment of \_\_\_\_\_% of the total value of Rs/ US \$/Euro/PS £/Yen/AUD/SGD \_\_\_\_\_ of the said Contract, against issuance of an advance guarantee by a bank."

2. We \_\_\_\_\_ (indicate the name of the bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the BUYER intimating that the SELLER is in breach of the Contractual obligations stipulated in the said Contract. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our total liability under this guarantee shall be restricted to an amount not exceeding Rs/ US \$/Euro/PS £/Yen/AUD/SGD \_\_\_\_\_.

3. We undertake to pay to the BUYER any money so demanded notwithstanding any dispute or disputes raised by the SELLER in any suit or proceedings pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the SELLER shall have no claim against us for making such payment.

4. We, further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and that it shall continue to be enforceable till all the dues of the BUYER under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged or till \_\_\_\_\_ office / Department / Ministry of \_\_\_\_\_ certifies that the terms and conditions of the said Contract have been fully and properly carried out by the said SELLER and accordingly discharges this guarantee.

5. We, further agree with the BUYER that the BUYER shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said SELLER from time to time or to postpone for any time or from time to time any of the powers exercisable by the BUYER against the said SELLER and to forbear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reason of any such variation, Amendment issued vide MoD ID No. 4(50)/D(Acq)/08 dated 20.06.2016 or extension being granted to the said SELLER or for any forbearance, act or omission on the part of the BUYER or indulgence by the BUYER to the said SELLER or by any such matter or thing whatsoever which under law relating to sureties would, but for this provision, have effect of so relieving us.

6. The amount of this guarantee will be progressively reduced by (percentage of advance) \_\_\_\_\_ of total value of each part shipment/services against the stage payment released by the BUYER for that shipment/services made by the SELLER and presentation to us of the payment documents.

7. This guarantee will not be discharged due to the change in the constitution of the bank or the BUYER/SELLER.

8. We, undertake not to revoke this guarantee during the currency except with the previous consent of the BUYER in writing.

9. Notwithstanding anything contained herein above:-

(a) Our liability under this Guarantee shall not exceed Rs/ US \$/Euro/PS £/Yen/AUD/SGD \_\_\_\_\_ (in words) \_\_\_\_\_

(b) This Bank Guarantee shall remain valid until \_\_\_\_\_ (hereinafter the expiry date of this guarantee) the Bank Guarantee will cease to be valid after \_\_\_\_\_ irrespective whether the Original Guarantee is returned to us or not.

(c) We are liable to pay guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written demand or a claim in writing on or before \_\_\_\_\_ (Expiry Date).

Dated the \_\_\_\_\_ day of \_\_\_\_\_ (month and year)

Place :

Signed and delivered by \_\_\_\_\_ (Name of the bank)

Through its authorised signatory

(Signature with seal)

**Annexure III to Appendix H**  
(Refers to Para 2 of Appendix H)

**BANK GUARANTEE FORMAT FOR PERFORMANCE-CUM-WARRANTY**

To

The \_\_\_\_\_  
Ministry of \_\_\_\_\_  
Government of India  
\_\_\_\_\_ (complete postal address of the beneficiary)

Dear Sir,

1. Whereas President of India represented by the \_\_\_\_\_ Ministry of \_\_\_\_\_, Government of India (hereinafter referred to as BUYER) have entered into a Contract No. \_\_\_\_\_ dated \_\_\_\_\_ (hereinafter referred to as the said Contract) with M/s. \_\_\_\_\_ (hereinafter referred to as the SELLER) for supply of goods as per Contract to the said BUYER and whereas the SELLER has undertaken to produce a bank guarantee amounting to Rs/ US \$/Euro/PS £/Yen/AUD/SGD \_\_\_\_\_ which is 3% **(or as applicable during signing of contract)** of the Total Contract Price (including taxes and duties) to cover 3% **(or as applicable during signing of contract)** of Total Contract Price (including taxes and duties) each for Performance and Warranty in sequence, to secure its obligations towards Performance-cum-Warranty to the BUYERS.

2. We, the \_\_\_\_\_ bank hereby expressly, irrevocably and unreservedly undertake the guarantee as principal obligors on behalf the SELLER that, in the event that the BUYER declares to us that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by the BUYER by reason of breach/failure to perform by the said SELLER of any of the terms and conditions in the Contract related to Performance and Warranty clauses, we will pay you, on demand and without demur, all and any sum up to {3% **(or as applicable during signing of contract)** of Total Contract Price (including taxes and duties)} \_\_\_\_\_ Rupees/ US \$/Euro/PS £/Yen/AUD/SGD only at any instance under this Guarantee. Your written demand shall be conclusive evidence to us that such repayment is due under the terms of the said Contract. We shall not be entitled to ask you to establish your claim or claims under this guarantee but will pay the same forthwith without any protest or demur. We undertake to effect payment upon receipt of such written demand.

3. We shall not be discharged or released from the undertaking and guarantee by any arrangements, variations made between you and the SELLER, indulgence to the SELLER by you, or by any alterations in the obligations of the SELLER or by any forbearance whether as to payment, time performance or otherwise.

4. We further agree that any such demand made by the BUYER on the Bank shall be conclusive, binding, absolute and unequivocal notwithstanding any difference or dispute or controversy that may exist or arise between you and the SELLER or any other person.

5. In no case shall the amount of this guarantee be increased.
6. This Performance-cum-Warranty guarantee shall remain valid for a period until three months beyond the warranty period as specified in the Contract i.e. up to \_\_\_\_\_.
7. Subject to the terms of this Bank Guarantee, the issuing bank hereby irrevocably authorizes the beneficiary to draw the amount of up to Rs/ US \$/Euro/PS £/Yen/AUD/SGD \_\_\_\_\_ {3% **(or as applicable during signing of contract)** of Total Contract Price (including taxes and duties)} for breach/failure to perform by the SELLER of any of the terms and conditions of the Contract related to performance and warranty clause. Partial drawings and multiple drawings under this Bank Guarantee are allowed within the above stated cumulative amount subject to each such drawing not exceeding 3% **(or as applicable during signing of contract)** of the Total Contract Price (including taxes and duties) (Rs/ US \$/Euro/PS £/Yen/AUD/SGD \_\_\_\_\_ only) (Mention BG amount).
8. This guarantee shall be continuing guarantee and shall not be discharged by any change in the constitution of the Bank or in the constitution of M/s \_\_\_\_\_. We undertake not to revoke this guarantee during the currency except with previous consent of BUYER in writing.
9. Notwithstanding anything contained herein above:
- (a) Our liability under this Guarantee shall not exceed Rs/ US \$/Euro/PS £/Yen/AUD/SGD \_\_\_\_\_ (Rupees \_\_\_\_\_ only (in words)).
- (b) This Bank Guarantee shall remain valid until 3 months from the date of expiry of warranty period of the Contract, i.e up to \_\_\_\_\_ (mention the date) which is 3 months after expiry of the warranty period and the BG shall cease to be valid after \_\_\_\_\_ irrespective whether the Original Guarantee is returned to us or not.
- (c) We are liable to pay guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written demand or a claim in writing on or before \_\_\_\_\_ (Expiry Date).

Dated the \_\_\_\_\_ day of \_\_\_\_\_ (month and year)

Place :

Signed and delivered by \_\_\_\_\_ (name of the bank)

Through its authorised signatory  
(Signature with seal)

**Annexure IV to Appendix H**  
(Refers to Para 5 of Appendix H)

**FORMAT FOR EXTENSION OF DELIVERY PERIOD/PERFORMANCE NOTICE**

Name of the Procuring Entity.....

Extension of Delivery Period/Performance Notice

To  
M/s (name and address of firm)

Sub: Contract No..... dated.....for the supply of.....

Ref: Your letter no. .... dated: .....

Dear Sir,

1. You have failed to deliver {the (fill in qty.) of Stores/the entire quantity of Stores} within the contract delivery period [as last extended up to] (fill in date). In your letter under reply you have asked for [further] extension of time for delivery. In view of the circumstances stated in your said letter, the time for delivery is extended from (fill in date) to (fill in date).

2. Please note that notwithstanding the grant of this extension in terms of Clause (fill in clause number) of the subject contract an amount equivalent to ..... % (..... per cent) of the delivered price of the delayed goods for each week of delay or part thereof (subject to the ceiling as provided in the aforesaid clause) beyond the original contract delivery date/the last unconditionally re-fixed delivery date (as & if applicable), viz., (fill in date) will be recovered from you as liquidated damages. You may now tender the Stores for inspection [balance of the Stores] in terms of this letter. Stores if any already tendered by you for inspection but not inspected will be now inspected accordingly.

3. You are also required to extend the validity period of the performance guarantee for the subject contract from (fill in present validity date) to (fill in required extended date) within 15 (fifteen) days of issue of this amendment letter.

4. The above extension of delivery date will also be subject to the following Denial Clause:-

(a) That no increases in price on account of any statutory increase in or fresh Imposition of customs duty, GST or on account of any other taxes/duty, including custom duty), leviable in respect of the Stores specified in the said contract which takes place after (insert the original delivery date) shall be admissible on such of the said Stores, as are delivered after the said date; and,

(b) That notwithstanding any stipulation in the contract for increase in price on any other ground including foreign exchange rate variation, no such increase which takes place after (insert the reckoning date as per DAP 2020) shall be admissible on such of the said Stores as are delivered after the said date.

(c) But nevertheless, the Buyer shall be entitled to the benefit of any decrease in price on account of reduction in or remission of customs duty, GST or on account of any other Tax or duty or on any other ground as stipulated in the price variation clause or foreign exchange rate variation which takes place after (insert the original delivery date).

5. All other terms and conditions of the contract remain unaltered. This is without any prejudice to Buyer's rights under the terms and conditions of the subject contract.

6. Please intimate your unconditional acceptance of this amendment letter within 10 (ten) days of the issue of this letter failing which the contract will be cancelled at your risk and expense without any further reference to you.

Yours faithfully,  
(Authorised Officer)  
Duly authorised,  
for and on behalf of  
The President of India

**Note:** Select one option within { } brackets; delete portion within [ ] brackets, if not applicable; fill in ( ) brackets. Brackets and this note are not to be typed.

Substitute following first para instead of first para in format above, for issuing a performance notice.

1. You have failed to deliver {the (fill in qty.) of Stores/the entire quantity of Stores} within the contract delivery period [as last extended up to] (fill in date). In spite of the fact that the time of delivery of the goods stipulated in the contract is deemed to be of the essence of the contract, it appears that (fill in the outstanding quantity) are still outstanding even though the date of delivery has expired. Although not bound to do so, the time for delivery is extended from (fill in date) to (fill in date) and you are requested to note that in the event of your failure to deliver the goods within the delivery period as hereby extended, the contract shall be cancelled for the outstanding goods at your risk and cost.

**Annexure V to Appendix H**  
(Refers to Para 9 of RFP and Para 1.4 of Appendix H)

**DELIVERY SCHEDULE AND STAGES OF PAYMENT**

1. The Broad guidelines for payments terms along with delivery schedule are appended in subsequent Paras.

2. **For Delivery in Lots/ Batches**

SI	Activity	Quantity (Bus electric & Fast Charger)	Delivery Timelines (Months)	Scheme for Payment	Scheme for submission and Return of Advance Payment Bank Guarantees	Remarks
(a)	Payment of Advance after signing of contract		T <sub>0</sub>	Fifteen (15) % of the Base Contract Price	APBG of equivalent amount to be submitted	T <sub>0</sub> is the date of Payment of Advance  Payment of advance within thirty (30) days of submission of claim.  Refer Para 1.4.1 of Appendix H.
(b)	<b>On Dispatch of all Deliverables</b>					
(i)	On Dispatch of deliverables (Min Lot -3)	51 & 43	T <sub>0</sub> to T <sub>0</sub> + 06	60% of the base contract price of deliverables, 100% FTI (if applicable) and re-imburement of 100 % of taxes and levies of the deliverable dispatched on pro-rata basis		
(ii)	On Dispatch of deliverables (Min Lot -3)	62 & Zero	T <sub>0</sub> + 07 to T <sub>0</sub> + 12			
(c)	<b>On Final Acceptance of Deliverables</b>					
(i)	On Delivery of	51 & 43	T <sub>0</sub> to T <sub>0</sub> + 06	25% of the base contract price of	APBG is to be returned on	Additional technical

SI	Activity	Quantity (Bus electric & Fast Charger)	Delivery Timelines (Months)	Scheme for Payment	Scheme for submission and Return of Advance Payment Bank Guarantees	Remarks
	deliverables (Min Lot -3)			deliverable on pro-rata basis	delivery of deliverable on pro rata basis.	literature to be supplied alongwith first lot of main equipment as per location mentioned at para 1.1.2 of Appendix H.
(ii)	On Delivery of deliverables (Min Lot -3)	62 & Zero	T <sub>0</sub> + 07 to T <sub>0</sub> + 12			
(d)	Completion of Training (as per para 16 of RFP)			85% of the cost of Training and 100 % of taxes and levies of training	APBG pertaining to training can be returned on completion of training.	



Serial	Items	Qty	Unit Cost	Total Cost (iii) x (iv)	Indicative Rate of Taxes & Duties used to arrive at Total Cost (as applicable)		Total Cost (including all taxes & duties) (v) + (vi) + (vii)	Remarks
					GST/IGST (%)	Custom Duty (%)		
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
A.	Cost of <b>Bus (Electric) with Fast Chargers</b> . Full break-up details may be given as under.	<b>113</b>						
A1	Cost of Bus (Electric)	<b>113</b>						
A2	Cost of Fast Charger	<b>43</b>						
B.	Cost of <b>Operator's Manual and Technical Literature</b> (in English Language) including Illustrated Spare Parts List as per <b>Annexure I to Appendix E</b> .							
C.	Cost of recommended period of <b>Training</b> excluding the cost of travel and boarding and lodging. This should be given as per <b>Para 16 of RFP</b> .							
D.	<b>Any other</b> cost (to be specified).							
E.	<b>Freight and Transit Insurance</b> Cost (where applicable).							
F.	<b>Total Cost</b> (Total of Serial A to E)						#	# This will be used in determining L1 vendor (duly applying provisions of Para 1 above).
	<b>Total Cost as per serial F (in words)</b>							
G.	<b>Foreign Exchange component</b> of the proposal. (for Indian Vendors only)							This will be with reference to Para 1.2 of

Serial	Items	Qty	Unit Cost	Total Cost (iii) x (iv)	Indicative Rate of Taxes & Duties used to arrive at Total Cost (as applicable)		Total Cost (including all taxes & duties) (v) + (vi) + (vii)	Remarks
					GST/IGST (%)	Custom Duty (%)		
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
								Appendix H.
H.	<b>CDEC (if applicable)</b> , its authority and amount for which required.							

**Note: Taxes and Duties.** All Indirect Taxes and Duties will be paid at actuals or as indicated in the Commercial bid by the Bidder, whichever is lower. In case of any change in the tax structure/rates by BUYER's Government, only incremental/decremented change will be paid.

RFP as on 08 Dec 2024

**Appendix K**  
(Refers to Para 49 of RFP)

**STANDARD CONDITIONS OF RFP**

**LAW**

1. The present Contract shall be considered and made in accordance to the laws of Republic of India.

**ARBITRATION**

(For Indian Private Vendors)

2.1 All disputes or differences arising out of or in connection with the present Contract, including the one connected with the validity of the present Contract or any part thereof, shall be settled by bilateral discussions.

2.2 Any dispute, disagreement or question arising out of or relating to this Contract or relating to construction or performance (except as to any matter the decision or determination whereof is provided for by these conditions), which cannot be settled amicably, shall within sixty (60) days or such longer period as may be mutually agreed upon, from the date on which either party informs the other in writing by a notice that such dispute, disagreement or question exists, will be referred to the Arbitration Tribunal consisting of three arbitrators.

2.3 Within sixty (60) days of the receipt of the said Notice, one arbitrator shall be nominated in writing by SELLER and one arbitrator shall be nominated by BUYER.

2.4 The third arbitrator, shall be nominated by the parties within ninety (90) days of the receipt of the notice mentioned above, failing which the third arbitrator may be nominated under the provision of Indian Arbitration and Conciliation Act, 1996 (as amended from time to time) or by dispute resolution institutions like Indian Council of Arbitration or ICADR, at the request of either party, but the said nomination would be after consultation with both the parties. The arbitrator nominated under this Clause shall not be regarded nor act as an umpire.

2.5 The Arbitration Tribunal shall have its seat in New Delhi or such other place in India as may be decided by the arbitrator.

2.6 The Arbitration Proceedings shall be conducted in India under the Indian Arbitration and Conciliation Act, 1996 (as amended from time to time) and the award of such Arbitration Tribunal shall be enforceable in Indian Courts only.

2.7 The decision of the majority of the arbitrators shall be final and binding on the parties to this contract.

2.8 Each party shall bear its own cost of preparing and presenting its case. The cost of arbitration including the fees and expenses of the third arbitrator shall be shared equally by the SELLER and the BUYER.

2.9 In the event of a vacancy caused in the office of the arbitrators, the party which nominated such arbitrator, shall be entitled to nominate another in his place and the arbitration proceedings shall continue from the stage they were left by the retiring arbitrator.

2.10 In the event of one of the parties failing to nominate its arbitrator within sixty (60) days as above or if any of the parties does not nominate another arbitrator within sixty (60) days of the place of arbitrator falling vacant, then the other party shall be entitled after due notice of at least thirty (30) days to request dispute resolution institutions in India like Indian Council of Arbitration and ICADR to nominate another arbitrator as above.

2.11 If the place of the third arbitrator falls vacant, his substitute shall be nominated according to the provisions herein above stipulated.

2.12 The parties shall continue to perform their respective obligations under this contract during the pendency of the arbitration proceedings except in so far as such obligations are the subject matter of the said arbitration proceedings.

### **ARBITRATION**

(For Central & State PSEs)

3. In the event of any dispute or difference relating to the interpretation and application of the provisions of the contracts, such dispute or difference shall be referred by either party for Arbitration to the sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 (as amended from time to time) shall not be applicable to arbitration under this clause. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary/Additional Secretary, when so authorised by the Law Secretary, whose decision shall bind the Parties finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

### **ARBITRATION**

(For Defence PSUs)

4. In the event of any dispute or difference relating to the interpretation and application of the provisions of the contracts, such dispute or difference shall be referred by either party to the Arbitrator(s) appointed by Defence Secretary. The award of the Arbitrator(s) shall be binding upon the parties to the dispute.

### **FORCE MAJEURE**

5.1 Should any force majeure circumstances arise, each of the contracting party shall be excused for the non-fulfilment or for the delayed fulfilment of any of its contractual obligations, if the affected party within **(30 days)** of its occurrence informs in a written form the other party.

5.2 Force majeure shall mean fires, floods, natural disasters or other acts such as war,

turmoil, strikes, sabotage, explosions, beyond the control of either party.

5.3 Provided the acts of The Government or any state parties of the seller which may affect the discharge of the Seller's obligation under the contract shall not be treated as Force Majeure.

### **PENALTY FOR USE OF UNDUE INFLUENCE**

6.1 The Seller undertakes that he has not given, offered or promised to give, directly or indirectly any gift, consideration, reward, commission, fees brokerage or inducement to any person in service of the Buyer or otherwise in procuring the Contracts or forbearing to do or for having done or for borne to do any act in relation to the obtaining or execution of the Contract or any other Contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other Contract with the Government. Any breach of the aforesaid undertaking by the seller or any one employed by him or acting on his behalf (whether with or without the knowledge of the seller) or the commission of any offence by the seller or anyone employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1988 or any other Act enacted for the prevention of corruption shall entitle the Buyer to cancel the contract and all or any other contracts with the seller and recover from the seller the amount of any loss arising from such cancellation. A decision of the buyer or his nominee to the effect that a breach of the undertaking had been committed shall be final and binding on the Seller.

6.2 Giving or offering of any gift, bribe or inducement or any attempt at any such act on behalf of the seller towards any officer/employee of the buyer or to any other person in a position to influence any officer/employee of the Buyer for showing any favour in relation to this or any other contract, shall render the Seller to such liability/penalty as the Buyer may deem proper, including but not limited to termination of the contract, imposition of penal damages, forfeiture of the Bank Guarantee and refund of the amounts paid by the Buyer.

### **INTEGRITY PACT**

7.1 Further signing of an 'Integrity Pact' would be considered between government department and the bidder for schemes exceeding ₹ **20 Crores**. The Integrity Pact is a binding agreement between the agency and bidders for specific contracts in which the agency promises that it will not accept bribes during the procurement process and bidders promise that they will not offer bribes. Under the IP, the bidders for specific services or contracts agree with the procurement agency or office to carry out the procurement in a specified manner. The essential elements of the IP are as follows:-

- (a) A pact (contract) between the Government of India (Ministry of Defence) (the authority or the "principal") and those companies submitting a tender for this specific activity (the "bidders");
- (b) An undertaking by the principal that its officials will not demand or accept any bribes, gifts, etc., with appropriate disciplinary or criminal sanctions in case of violation;

- (c) A statement by each bidder that it has not paid and will not pay, any bribes;
- (d) An undertaking by each bidder that he shall not pay any amount as gift, reward, fees, commission or consideration to such person, party, firm or institution (including Agents and other as well as family members, etc., of officials), directly or indirectly, in connection with the contract in question. All payments made to the Agent 12 months prior to tender submission would be disclosed at the time of tender submission and thereafter an annual report of payments would be submitted during the procurement process or upon demand of the MoD.
- (e) The explicit acceptance by each bidder that the no-bribery commitment and the disclosure obligation as well as the attendant sanctions remain in force for the winning bidder until the contract has been fully executed;
- (f) Undertakings on behalf of a bidding company will be made "in the name and on behalf of the company's chief executive officer";
- (g) The following set of sanctions shall be enforced for any violation by a bidder of its commitments or undertakings:
- (i) Denial or loss of contract;
  - (ii) Forfeiture of the **EMD (pre-contract)** and Guarantee for Performance-cum-Warranty Bond **(after signing of contract)**.
  - (iii) Payment to the Buyer of any such amount paid as gift, reward, fees or consideration along with interest at the rate of 2% per annum above LIBOR rate.
  - (iv) Refund of all sums already paid by the Buyer along with interest at the rate of 2% per annum above LIBOR rate.
  - (v) Recovery of such amount, referred to in (iii) and (iv) above, from other contracts of the Seller with the Government of India.
  - (vi) At the discretion of the Buyer, the Seller shall be liable for action as per extant policy on Putting on Hold, Suspension and Debarment of Entities.
- (h) Bidders are also advised to have a company code of conduct (clearly rejecting the use of bribes and other unethical behaviour) and a compliance program for the implementation of the code of conduct throughout the company.
- (j) The draft Pre-Contract Integrity Pact is attached as **Annexure I to this Appendix**. The vendors are required to sign them and submit separately along with the technical and commercial offers.

7.2 In respect of bids from DPSUs, the concerned DPSU shall enter in to a Pre-Contract Integrity Pact, on the same lines with their sub-vendors individually, in case the estimated value of each sub-contract(s) exceed ₹ 20 Crore and such subcontract(s) are required to be entered in to by the DPSU with a view to enable DPSU to discharge the obligations arising out of their bid in question in response to this RFP.

## AGENTS

8. The Seller confirms and declares to the Buyer that the Seller is the original manufacturer of the stores referred to in this contract. The Seller confirms that he has not engaged any person, party, firm or institution as an Agent including his Agents already intimated to MoD; to, influence, manipulate or in any way to recommend to any functionaries of the Government of India, whether officially or unofficially, to the award of the contract to the Seller, or to indulge in corrupt and unethical practices. The Seller has neither paid, promised nor has the intention to pay to any person, party, firm or institution in respect of any such intervention or manipulation. The Seller agrees that if it is established at any time to the satisfaction of the buyer that the present declaration is in any way incorrect or if at a later stage it is discovered by the Buyer that Seller has engaged any such person, party, firm or institution and paid, promised or has intention to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution, whether before or after the signing of this contract, the Seller will be liable for any or all of the following actions:-

- (a) To pay to the Buyer any such amount paid as gift, reward, fees or consideration along with interest at the rate of 2% per annum above LIBOR rate.
- (b) The Buyer will also have a right to put on hold or cancel the Contract either wholly or in part, without any entitlement or compensation to the Seller who shall in such event be liable to refund all payments made by the Buyer in terms of the Contract along with interest at the rate of 2% per annum above LIBOR rate
- (c) The Buyer will also have the right to recover any such amount referred in (a) and (b) above from other contracts of the Seller with the Government of India.
- (d) At the discretion of the Buyer, the Seller shall be liable for action as per extant policy on Putting on Hold, Suspension and Debarment of Entities

9. In case it is found to the satisfaction of the BUYER that the SELLER has engaged an Agent, or paid commission or influenced any person to obtain the contract as described in clauses relating to Agents and clauses relating to Penalty for Use of Undue Influence, the SELLER, on demand of the BUYER shall provide necessary information/inspection of the relevant financial documents/ information, including a copy of the contract(s) and details of payment terms between the vendors and Agents engaged by him.

**Annexure I to Appendix K**  
(Refers to Para 7.1 (j) of Appendix K)

**PRE-CONTRACT INTEGRITY PACT**

**General**

1. Whereas the PRESIDENT OF INDIA, represented by Joint Secretary & Acquisition Manager (Army/Air Force/Maritime & Systems)/ Major General & equivalent, Service Headquarters/ Coast Guard, Ministry of Defence, Government of India, hereinafter referred to as the Buyer and the first party, proposes to procure **Quantity One Hundred Thirteen (113) Bus (Electric) with Forty-Three (43) Fast Chargers**, hereinafter referred to as Defence Stores and M/s \_\_\_\_\_ represented by, \_\_\_\_\_ Chief Executive Officer (which term, unless expressly indicated by the contract, shall be deemed to include its successors and its assignees), hereinafter referred to as the Bidder/Seller and the second party, is willing to offer/has offered the Defence stores.

2. Whereas the Bidder is a private company/public company/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the Buyer is a Ministry of the Government of India performing its functions on behalf of the President of India.

**Objectives**

3. Now, therefore, the Buyer and the Bidder agree to enter into this pre-contract agreement, hereinafter referred to as Integrity Pact, to avoid all forms of corruption by following a system that is fair, transparent and free from any influence/unprejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:

3.1 Enabling the Buyer to obtain the desired defence stores at a competitive price in conformity with the defined specifications of the Services by avoiding the high cost and the distortionary impact of corruption on public procurement

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

**Commitments of the Buyer**

4. The Buyer commits itself to the following: -

4.1 The Buyer undertakes that, no official of the Buyer, connected directly or indirectly with the contract will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the Bidder, either for themselves or for any person, organisation or third party related to the contract in exchange for an

advantage in the bidding process, bid evaluation, contracting or implementation process related to the Contract.

4.2 The Buyer will, during the pre-contract stage, treat all Bidders alike and will provide to all Bidders the same information and will not provide any such information to any particular Bidder which could afford an advantage to that particular Bidder in comparison to other Bidders.

4.3 All the officials of the Buyer will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

5. In case of any such preceding misconduct on the part of such official(s) is reported by the Bidder to the Buyer with full and verifiable facts and the same is prima facie found to be correct by the Buyer, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the Buyer and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the Buyer the proceedings under the contract would not be stalled.

### **Commitments of Bidders**

6. The Bidder commits himself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of his bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commits himself to the following:

6.1 The Bidder will not to offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Buyer, connected directly or indirectly with the bidding process, or to any person, organisation or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the Contract.

6.2 The Bidder further undertakes that he has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Buyer or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the Contract or any other Contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other Contract with the Government.

6.3 The Bidder will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.

6.4 The Bidder will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

6.5 The Bidder further confirms and declares to the Buyer that the Bidder is the original manufacturer/integrator/authorised government sponsored export entity of the Defence stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the Buyer or any of its functionaries, whether officially or unofficially to the award of the contract to the Bidder, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company or Agent in respect of any such intercession, facilitation or recommendation.

6.6 The bidder would not enter into conditional contract with any Agents, brokers or any other intermediaries wherein payment is made or penalty is levied, directly or indirectly, on success or failure of the award of the contract. The bidder while presenting the bid, shall disclose any payments he has made during the 12 months prior to tender submission or is committed to or intends to make to officials of the buyer or their family members, Agents, brokers or any other intermediaries in connection with the contract and the details of such services agreed upon for such payments. Within the validity of PCIP, bidder shall disclose to MoD any payments made or has the intention to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution as an annual report during the procurement process.

6.7 The Bidder shall not use improperly, for purposes of competition or personal gain or pass on to others, any information provided by the Buyer as part of the business relationship regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The Bidder also undertakes to exercise due and adequate care lest any such information is divulged.

6.8 The Bidder commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts. Complaint will be processed as per **Guidelines for Handling of Complaints** in vogue. In case the complaint is found to be vexatious, frivolous or malicious in nature, it would be construed as a violation of Integrity Pact.

6.9 The Bidder shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

## 7. **Previous Transgression**

7.1 The Bidder declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India.

7.2 If the Bidder makes incorrect statement on this subject, Bidder can be disqualified from the tender process or the contract and if already awarded, can be terminated for such reason.

## 8. **Bid Security: Earnest Money Deposit**

8.1 Every bidder, while submitting commercial bid, shall submit Bid Security in the form of Earnest Money Deposit (EMD), in cases where applicable (as provided in Clause 8 herein).

(a) To safeguard against a bidder(s) withdrawing or altering its bid during the bid validity period, Bid Security (also known as EMD) is to be obtained from all bidders except for cases upto Rs. 100 Crores (i.e, all cases upto Rs. 100 crores of AoN will be exempted from payment of EMD) as follows:-

EMD TABLE

Estimated Cost of Procurement Scheme(Crore)		EMD Amount
Above (Not including)	To (Including)	
-	100	Nil
100	150	30 Lakh
150	300	70 Lakh
300	1000	2 Crore
1000	2000	5 Crore
2000	3000	10 Crore
3000	5000	15 Crore
5000	-	25 Crore

(b) EMD is not required from Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organisation or the concerned Ministry or Department or Startups as recognised by Department of Industrial Policy & Promotion (DIPP), in accordance with the Ministry of Finance office memorandum bearing No. No. F.20/2/2014-PPD (Pt.) dated July 25, 2017 (as amended from time to time).

(c) DPSUs are not required to submit EMD when nominated as ab-initio single vendor. DPSUs will submit all BGs and EMD as applicable while participating in multi-vendor cases with private vendors.

(d) Format of EMD. The Bid Security may be accepted in the following forms, safeguarding the Buyer's interest in all respect: -

(i) Bank Guarantee from any Indian Public or Private Scheduled Commercial Bank notified by RBI or first-class banks of international repute. The format of the Bank Guarantee for Bid Security is provided at Annexure 1 to Appendix O.

(ii) Insurance Surety Bond - The format and guidelines pertaining to the same shall be issued / notified by the Ministry of Defence.

(iii) Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque shall be payable in an acceptable form. The Beneficiary Bank Details for furnishing the same are as follows:

**Additional Director General, CD-A**  
**Directorate General of Capability Development (DGCD)**  
 (IFSC Code - SBIN0000691)  
 State Bank of India New Delhi Main Branch  
 C Block, 11 Parliament Street  
 New Delhi, Pin: 110001

(e) Validity of EMD. The EMD will be valid for eighteen months or till signing of contract, whichever is later. The EMD shall be extended from time to time as required by the Buyer and agreed by the Bidder. No interest shall be payable by the Buyer to the Bidder(s) on the EMD for the period of its currency. For unsuccessful bidders EMD will be returned on declaration of successful bidder(s).

(f) Instances of Forfeiture of EMD.

(i) If the Bidder withdraws or amends, impairs or derogates from the Bid in any respect within the period of validity of this tender.

(ii) If the Bidder having been notified of the acceptance of his tender by the Buyer during the period of its validity.

(aa) If the Bidder fails to furnish the Performance Security for the due performance of the contract.

(ab) Fails or refuses to accept/ execute the contract.

(iii) In case of violation of Pre-Contract Integrity Pact, EMD will be forfeited besides other legal penalties as may be decided by the Ministry of Defence.

8.2 In the case of successful bidder a clause would also be incorporated in the Article pertaining to Performance-cum-Warranty Bond in the Purchase Contract that the provisions of Sanctions for Violation shall be applicable for forfeiture of Performance Bond in case of a decision by the Buyer to forfeit the same without assigning any reason for imposing sanction for violation of this pact.

8.3 The provisions regarding Sanctions for Violation in Integrity Pact include forfeiture of Performance-cum-Warranty Bond in case of a decision by the Buyer to forfeit the same without assigning any reason for imposing sanction for violation of Integrity Pact.

8.4 No interest shall be payable by the Buyer to the Bidder(s) on EMD for the period of its currency.

## 9. Company Code of Conduct

9.1 Bidders are also advised to have a company code of conduct (clearly rejecting

the use of bribes and other unethical behaviour) and a compliance program for the implementation of the code of conduct throughout the company.

## 10. **Sanctions for Violation**

10.1 Any breach of the aforesaid provisions by the Bidder or any one employed by him or acting on his behalf (whether with or without the knowledge of the Bidder) or the commission of any offence by the Bidder or any one employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act 1988 or any other act enacted for the prevention of corruption shall entitle the Buyer to take all or any one of the following actions, wherever required:

- (i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the Bidder. However, the proceedings with the other Bidder(s) would continue.
- (ii) **EMD for pre contract period**, Performance-cum-Warranty Bond **post signing of contract** shall stand forfeited either fully or partially, as decided by the Buyer and the Buyer shall not be required to assign any reason therefore.
- (iii) To immediately cancel the contract, if already signed, without any compensation to the Bidder.
- (iv) To recover all sums already paid by the Buyer, in case of an Indian Bidder with interest thereon at 2% higher than the prevailing Base Rate of SBI and in case of a Bidder from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the Bidder from the Buyer in connection with any other contract for any other defence stores, such outstanding payment could also be utilised to recover the aforesaid sum and interest.
- (v) To encash the advance bank guarantee and Performance-cum-Warranty Bond if furnished by the Bidder, in order to recover the payments, already made by the Buyer, along with interest.
- (vi) To cancel all or any other Contracts with the Bidder.
- (vii) To Put on Hold or Suspend or Debar the bidder as per the extant policy.
- (viii) To recover all sums paid in violation of this Pact by Bidder(s) to any Agent or broker with a view to securing the contract.
- (ix) If the Bidder or any employee of the Bidder or any person acting on behalf of the Bidder, either directly or indirectly, is closely related to any of the officers of the Buyer, or alternatively, if any close relative of an officer of the Buyer has financial interest/stake in the Bidder's firm, the same shall be disclosed by the Bidder at the time of filing of tender. Any failure to disclose the interest involved shall entitle the Buyer to debar the Bidder from the bid process or rescind the contract without payment of any compensation to the Bidder. The term '**close relative**' for this purpose would mean spouse whether residing with

the Government servant or not, but not include a spouse separated from the Government servant by a decree or order of a competent court; son or daughter or step son or step daughter and wholly dependent upon Government servant, but does not include a child or step child who is no longer in any way dependent upon the Government servant or of whose custody the Government servant has been deprived of by or under any law; any other person related, whether by blood or marriage, to the Government servant or to the Government servant's wife or husband and wholly dependent upon Government servant.

(x) The Bidder shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the Buyer and if he does so, the Buyer shall be entitled forthwith to rescind the contract and all other contracts with the Bidder. The Bidder shall be liable to pay compensation for any loss or damage to the Buyer resulting from such rescission and the Buyer shall be entitled to deduct the amount so payable from the money(s) due to the Bidder.

(xi) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the Buyer with the Bidder, the same shall not be opened.

10.2 The decision of the Buyer to the effect that a breach of the provisions of this Integrity Pact has been committed by the Bidder shall be final and binding on the Bidder, however, the Bidder can approach the Independent Monitor(s) appointed for the purposes of this Pact.

## 11. **Fall Clause**

11.1 The Bidder undertakes that he has not supplied/is not supplying the similar products, systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India and if it is found at any stage that the similar system or sub-system was supplied by the Bidder to any other Ministry/Department of the Government of India at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the Bidder to the Buyer, even if the contract has already been concluded.

11.2 The Bidder shall strive to accord the most favoured customer treatment to the Buyer in respect of all matters pertaining to the present case.

## 12. **Independent Monitors**

12.1 The Buyer has appointed Independent Monitors for this Pact in consultation with the Central Vigilance Commission. The names and addresses of nominated Independent Monitors (at the time of issue of RFP) are as follows (however the vendor must refer to the MoD website at [www.mod.nic.in](http://www.mod.nic.in) to check for changes to these details): -

(a) Shri Ravikant, IAS/ Bihar (1984) (Retd)

Apartment No 502, Tower-1, M3M Merlin,  
Sector-67, Gurugram-122001(Haryana)  
Mob : 9953555566, **Email-** [84ravikant@gmail.com](mailto:84ravikant@gmail.com)

(b) Dr. Prabhat Kumar, IAS/ UP (1985) (Retd)  
C-120, Sector-39, Noida-201301  
Gautam Budh Nagar (Uttar Pradesh)  
Mob : 9810530048, **Email-** prabhatfamily@gmail.com

(c) Shri Chet Ram, IRS (1985) (Retd)  
Flat No A-203, Building Gemini, Gladys Alwares Marg,  
Hiranandani Meadows, Off-Pokhran Road No.2,  
Thane (W), Maharashtra-400610  
Mob : 9869479987, **Email-** cr\_koli@yahoo.com

12.1A All communications to Independent Monitors will be copied to Director (Vigilance). The Designation and Contact details of Director (Vigilance) are as follows:-

Director (Vigilance)  
Room No 340,  
B Wing, Sena Bhawan  
New Delhi 110011  
Tel No - 011 – 23012304

12.2 After the Integrity Pact is signed, the Buyer shall provide a copy thereof, along with a brief background of the case to the Independent Monitors, if required by them.

12.3 The Bidder(s), if they deem it necessary, may furnish any information as relevant to their bid to the Independent Monitors.

12.4 If any complaint with regard to violation of the IP is received by the buyer in a procurement case, the buyer shall refer the complaint to the Independent Monitors for their comments/enquiry.

12.5 If the Independent Monitors need to peruse the relevant records of the Buyer in connection with the complaint sent to them by the Buyer, the Buyer shall make arrangement for such perusal of records by the Independent Monitors.

12.6 The report of enquiry, if any, made by the Independent Monitors shall be submitted to the head of the Acquisition Wing of the Ministry of Defence, Government of India for a final and appropriate decision in the matter keeping in view the provision of this Pact.

### 13. **Examination of Books of Accounts**

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

14. **Law and Place of Jurisdiction**

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the Buyer i.e. New Delhi.

15. **Other Legal Actions**

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

16. **Validity**

16.1 The validity of this Integrity Pact shall be from date of its signing and extend up to 5 years or the complete execution of the contract to the satisfaction of both the Buyer and the Bidder/Seller, whichever is later.

16.2 Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

17. The Parties hereby sign this Integrity Pact at \_\_\_\_\_ on

BUYER

\_\_\_\_\_

MINISTRY OF DEFENCE,  
GOVERNMENT OF INDIA

Witness

1. \_\_\_\_\_  
2. \_\_\_\_\_

BIDDER

\_\_\_\_\_

CHIEF EXECUTIVE OFFICER

Witness

1. \_\_\_\_\_  
2. \_\_\_\_\_

**Refers to Para 8.1 of  
Pre-Contract Integrity Pact**

EMD BANK GUARANTEE FORMAT

Whereas .....(hereinafter called the "Bidder") has submitted their offer dated.....for the supply of ..... (hereinafter called the "Bid") against the Buyer's Request for proposal No. .... KNOW ALL MEN by these presents that WE .....of ..... having our registered office at ..... are bound unto ..... (hereinafter called the "Buyer") in the sum of .....for which payment will and truly to be made to the said Buyer, the Bank binds itself, its successors and assigns by these presents.

Sealed with the Common Seal of the said Bank this..... day of .....20.....

The conditions of obligations are:-

- (1) If the Bidder withdraws or amends, impairs or derogates from the Bid in any respect within the period of validity of this tender.
- (2) If the Bidder having been notified of the acceptance of his tender by the Buyer during the period of its validity.
  - (a) If the Bidder fails to furnish the Performance Security for the due performance of the contract.
  - (b) Fails or refuses to accept/execute the contract.
- (3) If the bidder violates Pre-Contract Integrity Pact.

WE undertake to pay the Buyer up to the above amount upon receipt of its first written demand, without the Buyer having to substantiate its demand, provided that in its demand the Buyer will note that the amount claimed by it is due to it owing to the occurrence of above mentioned conditions, specifying the occurred condition or conditions.

This guarantee will remain in force upto and including 45 days after the period of 18 months/ contract signing whichever is later and any demand in respect thereof should reach the Bank not later than the above date.

.....

(Signature of the authorized officer of the Bank)

Name and designation of the officer

Seal, name & address of the Bank and address of the Branch

**Appendix L**  
(Refers to Para 6 of RFP)

**CRITERIA FOR VENDOR SELECTION / PRE-QUALIFICATION**  
**FOR - RFP ISSUE**  
**(Not applicable to DPSUs/PSUs.)**

<b><u>Sl No</u></b>	<b><u>Parameter</u></b>	<b><u>For all Cases except Shipbuilding (Ch XII), Make (Ch III &amp; IV) and Strategic Partnerships (Ch VII)</u></b>
<b>1</b>	<b>Financial</b>	
a	Credit Rating	Long term credit rating of CCR-BBB or better and SME-04 or better for SMEs as on 31 <sup>st</sup> March of the previous financial year
b	Average Annual Turn Over	Min Avg Annual Turnover for last 03 financial years, ending 31 <sup>st</sup> March of the previous financial year, should not be less than ₹50 Crores.
c	Net Worth	Net worth of entities, ending 31 <sup>st</sup> march of the previous financial year, should not be less than ₹8 Crores.
d	Insolvency	The entity should not be under insolvency resolution as per IBC at any stage of procurement process from the issuing of RFP to the signing of contract.
<b>2</b>	<b>Technical</b>	
a	Nature of Business	Manufacturing entity or System Integrator of defence equipment and not a trading company, except in cases where OEM participates only through its authorised Vendors.
b	Experience in related field	Min 02 Yrs. experience in broad areas like manufacturing/ engineering/ electronics etc. If not, then cumulative experience of at least 03 years in above areas, resulting in gaining of competence for manufacturing the proposed product.
<b>3</b>	<b>Others</b>	
a	Industrial License (If applicable)	Posses or be in the process of acquiring a license, if the product under project requires license as per DIPP licensing policy.
b	Registration	Registered for Min 02 Years, 01 years for MSMEs.  Min no of years not applicable for JVs constituted specifically for a project.

**Appendix M**  
(Refers to Para 50 of RFP)

**DOCUMENTS TO BE SUBMITTED BY THE BIDDER ALONG WITH THEIR TECHNO-COMMERCIAL PROPOSALS**

The list of documents which needs to be mandatorily submitted by the Bidders as part of Technical Proposal are placed below. Non-submission of the documents may result in disqualification of the Bidder from the bidding process.

<b>Ser No.</b>	<b>Reference</b>	<b>Document Description</b>
1	Para 5 (a) of RFP	Declaration by Bidder : Debarment of vendors
2	Para 17 of RFP	Declaration by Bidder: Government Regulation
3	Para 19 of RFP	Declaration by Bidder : Patent Rights
4	Para 21 of RFP	Declaration by Bidder : Fall Clause
5	Para 28 of RFP	Technical document covering performance parameters.
6	Appendix B	Compliance Table
7	Appendix C	Warranty Clause
8	Appendix D	CERTIFICATE: Malicious Code
9	Annexure I to Appendix E	Technical Literature
10	Appendix J	Price Bid
11	Annexure I to Appendix O	Pre-Contract Integrity Pact & EMD
12	-	Additional document as per RFP

**Appendix N****GLOSSARY**

AoN	Acceptance of Necessity
ATP	Acceptance Test Procedure
CNC	Contract Negotiation Committee
CTT	Composite Trial Team
DGQA	Director General of Quality Assurance
DAP	Defence Acquisition Procedure
FET	Field Evaluation Trials
GoI	Government of India
IA	Indian Army
IAF	Indian Air Force
IN	Indian Navy
IC	Indigenous Content
IDDM	Indigenously Designed & Developed Manufactured
IM	Indigenously Manufactured
IP	Integrity Pact
EMD	Earnest Money Deposit
LRU	Line Replaceable Unit
MET	Maintainability Evaluation Trial
MoD	Ministry of Defence
NCNC	No Cost No Commitment
OEM	Original Equipment Manufacturer
OTE	Open Tender Enquiry
PCIP	Pre Contract Integrity Pact
QA	Quality Assurance
RFP	Request for Proposal
SPB	Services Procurement Board
SHQ	Service Headquarters
TEC	Technical Evaluation Committee