INTERNATIONAL COMPETITIVE BIDDING
(PROCUREMENT OF GOODS)

INDUCTION OF ECO-FRIENDLY BUSES IN RAWALPINDI (GS # 3470)

REQUEST FOR PROPOSAL

DATED:
28TH-MARCH-2025

PUNJAB MASS TRANSIT AUTHORITY
(*Government of the Punjab, Pakistan*)

TABLE OF CONTENTS

SECTION – I: INVITATION TO BIDS 4
1.1 INVITATION TO BID 4
SECTION – II: INSTRUCTIONS TO BIDDERS (ITB) 6
2.1. INTRODUCTION 6
2.1.1 SCOPE OF BID 6
2.1.2 SOURCE OF FUNDS 6
2.1.3 ELIGIBLE BIDDERS 6
2.1.4. ELIGIBLE GOODS AND SERVICES 8
2.1.5. COST OF BIDDING 9
2.1.6. ONE PERSON ONE BID 9
2.2. THE BIDDING DOCUMENTS 9
2.2.1.CONTENT OF BIDDING DOCUMENTS 9
2.2.2. CLARIFICATION OF BIDDING DOCUMENTS 10
2.2.3. AMENDMENT OF BIDDING DOCUMENTS 11
2.3. PREPARATION OF BIDS 12
2.3.1.LANGUAGE OF BID 12
2.3.2.BID FORM 12
2.3.3.BID PRICES 12
2.3.4. BID CURRENCIES 13
2.3.5. DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY AND QUALIFICATION 13
2.3.6.DOCUMENTS ESTABLISHING GOODS' ELIGIBILITY AND CONFORMITY TO BIDDING DOCUMENTS 14
2.3.7.BID SECURITY 16
2.3.8.PERIOD OF VALIDITY OF BIDS 17
2.3.9.FORMAT AND SIGNING OF BID 17
2.3.10.MINIMUM WAGE RATES/ALL APPLICABLE TAXES 18
2.4. SUBMISSION OF BIDS 18
2.4.1. SEALING AND MARKING OF BIDS 18
2.4.2 DEADLINE FOR SUBMISSION OF BIDS 18
2.4.3. LATE BIDS 18
2.4.4. WITHDRAWAL OF BIDS 19
2.5. OPENING AND EVALUATION OF BIDS 19
2.5.1. OPENING OF BIDS BY THE PROCURING AGENCY 19
2.5.2. CONFIDENTIALITY 20
2.5.3. CLARIFICATION OF BIDS 20
2.5.4. PRELIMINARY EXAMINATION 21
2.5.5. EXAMINATION OF TERMS AND CONDITIONS; TECHNICAL EVALUATION 22
2.5.6. CORRECTION OF ERRORS 22
2.5.7. CONVERSION TO SINGLE CURRENCY 23
2.5.8. POST -QUALIFICATION & EVALUATION OF BIDS 23
2.5.9. CONTACTING THE PROCURING AGENCY 23
2.5.10. GRIEVANCE REDRESSAL 24
2.6. AWARD OF CONTRACT 25
2.6.1. NOTIFICATION OF AWARD 25
2.6.2. PERFORMANCE GUARANTEE 25
2.6.3. SIGNING OF CONTRACT/ISSUANCE OF WORK ORDER 25
2.6.4. AWARD CRITERIA 26
2.6.5. PROCURING AGENCY'S RIGHT TO VARY QUANTITIES AT TIME OF AWARD 26

2.6.6. PROCURING AGENCY'S RIGHT TO ACCEPT OR REJECT ALL BIDS 26
2.6.7. RE-BIDDING 26
2.6.8. CORRUPT OR FRAUDULENT PRACTICES 26
SECTION – III: TECHNICAL SPECIFICATIONS 32
3.1. TECHNICAL SPECIFICATIONS 32
SECTION – IV: BID DATA SHEET 125
4.1. BID DATA SHEET (BDS) 125
SECTION – V: NOT USED 133
SECTION – VI: NOT USED 134
SECTION – VII: SCHEDULE OF REQUIREMENTS 135
SECTION – VIII: SAMPLE FORMS 136
8.1. BID FORM 136
8.2. BIDDER'S JV MEMBERS FORM – NOT APPLICABLE 138
8.3. MANUFACTURER'S AUTHORIZATION FORM 139
8.4. BIDDER PROFILE FORM 140
8.5. GENERAL INFORMATION FORM 141
8.6. AFFIDAVIT – NOT APPLICABLE 142
8.7. PERFORMANCE GUARANTEE FORM 143
8.8. TECHNICAL BID FORM 146
8.9. CONTRACT FORM 147
8.10. FINANCIAL BID FORM 149
8.11. FORM OF BID SECURITY 150
8.11. FORM OF SUBMISSION INFORMATION SUMMARY 151
SECTION – IX: CHECK LIST 152
SECTION X – CONDITIONS OF THE CONTRACT 154
LIST OF SCHEDULES 256
SCHEDULE 1 – FORM OF ADVANCE PAYMENT BOND 257
SCHEDULE 2 – FORM OF PERFORMANCE GUARANTEE 260
SCHEDULE 3 – FORM OF WARRANTY BOND 263
SCHEDULE 4 – PROCURING AGENCY'S REQUIREMENTS 266
SCHEDULE 5 – SCHEDULE OF DELIVERY 267
SCHEDULE 6 – INSURANCE 271
SCHEDULE 7 – SCHEDULE OF PAYMENT MILESTONE 272
SCHEDULE 8 –RELEASE CERTIFICATE CRITERIA 274
SCHEDULE 9 – FINAL RELEASE CERTIFICATE CRITERIA 275
SCHEDULE 10 – LIST OF SUB-SUPPLIERS 276
SCHEDULE 11 – FORM OF RETENTION MONEY BOND 277

SECTION – I: INVITATION TO BIDS

1.1 INVITATION TO BID

BIDDING DOCUMENTS FOR INDUCTION OF ECO-FRIENDLY BUSES IN RAWALPINDI.

The Punjab Masstransit Authority is a statutory body established by Government of Punjab with the purpose of planning, construction, operation and maintenance of mass transit systems in the major cities of the province; for providing safe, efficient and comfortable urban transportation system. Punjab Masstransit Authority's vision is to provide state-of-the-art mass transit system for all. The mission of Punjab Masstransit Authority is to establish and operate mass transit system ensuring safety, comfort and efficacy. The features of mass transit system are planned to cater to the vision and mission of the Punjab Masstransit Authority.

In this regard, the Punjab Masstransit Authority intends to engage an international firm/manufacturer (OEM) for the purposes of supply of pure electric buses and allied services. The Project will lay the foundation for future prospect of upgradation of public transport operations in the city of Rawalpindi. In light of the same, the Punjab Masstransit Authority intends to engage a international firm/manufacturer (OEM) for the purposes of procurement and supply of pure electric buses of nine (09).

The prequalified firms are requested to submit bids (technical and financial) online on the PPRA Portal: e-Pak Acquisition & Disposal System (EPADS) via web link: https://eprocure.gov.pk/ on or before **28th April, 2025 (Monday)** at **1100 Hours (PST)** accompanied with requisite documents as mentioned in bidding documents. In case of official holiday on the day of submission, next day will be treated as closing date. The prequalified firms are requested to upload the bids on EPADS. The bids will be opened by the Evaluation Committee in the presence of the bidders, who may choose to attend, at **1130 Hours (PST)** on the same day through EPADS at the address mentioned at the end of this tender notice.

SR. NO.	DESCRIPTION OF SUPPLY & SERVICES*	BID SECURITY AMOUNT (IN RUPEES/MILLIONS)
1.	Manufacture and supply sixty three (63) nine-meter (9m) pure electric buses, seventeen (17) slow chargers, five (05) fast chargers, all with twelve (12) years of warranty, along with spare parts and one (01) set of tools and diagnostic equipment.	USD 175,000/- in favor of "Mass transit Authority Non Fare Revenue (NFR) Fund Account".
2.	Fulfill obligations related to service performance, including maintenance supervision (for a period of twelve (12) months from the date of acceptance of last tranche of vehicles), training programs, vehicle homologation including all support services, registration, licensing for each bus etc.	

**As further detailed in the "Bidding Documents".*

Terms and Conditions:

1. Bidding Documents are immediately available after date of publication of this advertisement. The prequalified firms can download the Bidding documents from the EPADS website (https://eprocure.gov.pk/), and Punjab Procurement Regulatory Authority (PPRA) website (http://ppra.punjab.gov.pk/) and Punjab Masstransit Authority website (https://pma.punjab.gov.pk/)

2. Detailed terms and conditions have been mentioned in the Bidding Documents.

3. The technical and financial bids must be submitted electronically through EPADS. No hard copy of bids will be entertained.

4. The original Bid Security in the form of CDR/Demand Draft/Pay Order/Bank Guarantee in favor of Punjab Masstransit Authority shall be delivered to the Procuring Agency's office at below mentioned address whereas its scanned copy is required to be uploaded on the PPRA Portal (EPADS) before the closing time of the bid, failing which the bid shall be considered as non-responsive and will be rejected.

5. **Single Stage Two Envelopes** procedure with least cost method will be adopted as per Punjab Procurement Rules 2014 (amended).

6. The bid security will be returned to the unsuccessful bidder upon request after completion of procurement process (i.e. after issuance of the Letter of Award to the Successful Bidder).

7. The Procuring Agency may reject all bids or proposals at any time prior to the acceptance of a bid or proposal. The Procuring Agency, upon request, will communicate to any company/firm who submitted a bid or proposal, the grounds for its rejection of all bids or proposals.

8. Pre-bid meeting will be held on **10th April 2025, Thursday at 1100 Hours (PST)** at the PTC Office, (1ST FLOOR, EOBI BUILDING, #66, SHAHRAH NAZRIA PAKISTAN, NEAR AYYUB CHOWK, JOHAR TOWN, LAHORE, PAKISTAN). The prequalified firms may obtain further information from the Procuring Agency during office hours at the address given below (Monday to Friday).

Sincerely,

GENERAL MANAGER (OPERATIONS)
PUNJAB MASSTRANSIT AUTHORITY,
5TH FLOOR, ARFA SOFTWARE TECHNOLOGY PARK (ASTP),
346-B, MAIN FEROZEPUR ROAD, LAHORE, PAKISTAN.
TEL:+92 (42) 99028000 Fax: +92 (42) 99232541
EMAIL: rizwan.aziz@pma.punjab.gov.pk

SECTION – II: INSTRUCTIONS TO BIDDERS (ITB)

NOTE:- All the procurement procedures shall be conducted in accordance with Punjab Procurement Authority Act-2009 and Punjab Procurement Rules-2014 (revised). In case of any conflict between the provision of this document and Punjab Procurement Authority Act-2009/Punjab Procurement Rules-2014 (revised), the later shall prevail.

2.1. INTRODUCTION

2.1.1 SCOPE OF BID

(i) The Punjab Masstransit Authority (the "**Procuring Agency**"), as indicated in the Bid Data Sheet (BDS) invites Bids for *Induction Of Eco-Friendly Buses In Rawalpindi* as specified in the Section-IV Bid Data Sheet (BDS) and Section VII- Schedule of Requirements. The successful Bidders will be expected to provide the supply and services for the specified period and timeline(s) as stated in the BDS.

2.1.2 SOURCE OF FUNDS

(i) The Procuring Agency named in the Bid Data Sheet has received budget from the Government of the Punjab. The Procuring Agency intends to apply the provided funds/a portion of this budget to make eligible payments under the contract for which the Invitation To Bids has been issued.

2.1.3 ELIGIBLE BIDDERS

(i) The Invitation to Bids is open to all prequalified OEMs.

(ii) Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Procuring Agency to provide consultancy services for the preparation of the design, specifications, and other documents to be used for the procurement of the services to be purchased under this Invitation to Bids.

(iii) Government-owned enterprises may participate only if they are duly/legally authorized in this regard by the respective/relevant competent forum/authority.

(iv) Bidders shall not be under a declaration of blacklisting by the Procuring Agency.

(v) Not used.

(vi) Not used.

(vii) Not used.

(viii) Not used.

(ix) The invitation for Bids is open to all prospective Supplier/ Manufacturers subject to any provisions or licensing/regulatory requirements issued by the respective national/provincial professional statutory body established for that particular trade or business.

(x) A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest with one or more parties in this Bidding process, if they:

(a) are associated or have been associated in the past, directly or indirectly with a firm or any of its affiliates which have been engaged by the Procuring Agency to provide consulting services for the preparation of the design, specifications and other documents to be used for the procurement of the services to be purchased under this Invitation for Bids.

(b) have controlling shareholders in common; or

(c) receive or have received any direct or indirect subsidy from any of them; or

(d) have the same legal representative for purposes of this Bid; or

(e) have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or influence the decisions of the Procuring Agency regarding this Bidding process; or

(f) submit more than one Bid in this Bidding process, However, this does not limit the participation of subcontractors in more than one Bid.

(xi) A Bidder may be ineligible if:

(a) the Bidder is declared bankrupt or, in the case of company or firm, insolvent;

(b) payments in favor of the Bidder is suspended in accordance with the judgment of a court of law other than a judgment declaring bankruptcy and resulting, in accordance with the national laws, in the total or partial loss of the right to administer and dispose of its property;

(c) legal proceedings are instituted against such Bidder involving an order suspending payments and which may result, in accordance with the national laws, in a declaration of bankruptcy or in any other situation entailing the total or partial loss of the right to administer and dispose of the property;

(d) the Bidder is convicted, by a final judgment, of any offence involving professional conduct;

(e) The Bidder is debarred and blacklisted due to involvement in corrupt and fraudulent practices in accordance with the provision of section 17A of Punjab Procurement Authority Act-2009 and Rule-21, read with Schedule appended with, Punjab Procurement Rules, 2014.

(f) The Bidder is debarred and blacklisted in general (i.e. to the extent of all public procurement) due to consistent performance failure in accordance with the section 17A of Punjab Procurement Authority Act-2009 and Rule-21, read with Schedule appended with, Punjab Procurement Rules, 2014.

(g) The firm, Supplier and contractor is blacklisted/debarred by any international organization.

(xii) Bidders shall provide to the Procuring Agency evidence of their eligibility, proof of compliance with the necessary legal requirements to carry out the contract effectively.

(xiii) Bidders shall provide such evidence of their continued eligibility satisfactory to the Procuring Agency, as the Procuring Agency shall reasonably request.

(xiv) Bidders shall submit proposals relating to the nature, conditions and modalities of sub-contracting wherever the sub-contracting of any elements of the contract amounting to more than ten percent of the Bid price is envisaged.

2.1.4. ELIGIBLE GOODS AND SERVICES

(i) All goods and related services to be supplied under the Contract shall have their origin in eligible source countries, defined in the Bid Data Sheet (BDS/Technical Specification), and all expenditures made under the contract will be limited to such goods and related services.

(ii) For purposes of this clause, “origin” means the place where the goods are mined, grown, or produced, or the place from which the related services are supplied. Goods are produced

when, through manufacturing, processing, or substantial and major assembly of components, a commercially-recognized product is obtained that is substantially different in basic characteristics or in purpose or utility from its components.

(iii) The origin of goods and services is distinct from the nationality of the Bidder. *In any case, the requirements of Rules 10 & 26 of Punjab Procurement Rules, 2014, shall be followed.*

2.1.5. COST OF BIDDING

(i) The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Procuring Agency named in the Bid Data Sheet, will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.

2.1.6. ONE PERSON ONE BID

(i) As per Rule 36A of Punjab Procurement Rules 2014, a Bidder shall submit only one Bid in the same Bidding process, individually as a Bidder.

(ii) No Bidder can be a sub-contractor while submitting a Bid individually.

(iii) A Bidder, if acting in the capacity of sub-contractor in any Bid, shall not submit Bid for the same.

2.2. THE BIDDING DOCUMENTS

2.2.1. CONTENT OF BIDDING DOCUMENTS

(i) The services required, Bidding procedures, and contract terms are prescribed in the Bidding documents. The Bidding documents, *inter alia*, include:

(a) Invitation to Bids;

(b) Instructions to Bidders (ITB);

(c) Technical Specifications;

(d) Bid Data Sheet;

(e) Not Used;

(f) Not Used;

(g) Schedule of Requirements;

(h) Bid Form;

(i) Manufacturer's Authorization Form;

(j) Bidder Profile Form;

(k) General Information Form;

(l) Affidavit;

(m) Bid Security Form;

(n) Technical Bid Form;

(o) Contract Form;

(p) Financial Bid Form/Price Schedule;

(q) Performance Guarantee Form; and

(r) Check List.

(ii) The Bidder is required to examine all instructions, forms, terms, and specifications in the Bidding documents. Failure to furnish all information as required by the Bidding documents or to submit a Bid not substantially responsive to the Bidding documents in every respect will be at the Bidder's risk and may result in the rejection of its Bid.

(iii) In case of discrepancies between the Invitation to Bid and the Bidding Documents listed in ITB 2.2.1 (i) above, the said Bidding Documents, not in conflict with any provision of Punjab Procurement Rules, 2014, will take precedence.

(iv) The Procuring Agency is not responsible for the completeness of the Bidding Documents and their addenda, if they were not obtained directly from the Procuring Agency or from its website or website of Punjab Procurement Regulatory Authority. Re-confirming from the Procuring Agency that all pages/contents have been properly and clearly received is the prime responsibility of the Bidder.

2.2.2. CLARIFICATION OF BIDDING DOCUMENTS

(i) A prospective Bidder requiring any clarification of the Bidding documents may notify the Procuring Agency in writing or by email at the Procuring Agency's address indicated in Invitation to Bid/Tender Notice/Advertisement. The Procuring Agency will respond in writing to any request for clarification of the Bidding documents which it receives no later than seven (7) days prior to the deadline for the submission of Bids prescribed in the Bid Data Sheet.

(ii) A prospective Bidder requiring any clarification of the Bidding Documents may notify the Procuring Agency in writing or in electronic form that provides record of the content of

communication at the Procuring Agency's address indicated in the BDS.

(iii) The Procuring Agency will within seven (07) working days after receiving the request for clarification, respond in writing or in electronic form to any request for clarification provided that such request is received not later than seven (7) days prior to the deadline for the submission of Bids. As prescribed in ITB 2.2.2 (i), above. However, this clause shall not apply in case of alternate methods of Procurement.

(iv) Copies of the Procuring Agency's response will be forwarded to all identified Prospective Bidders through an expeditious identified source of communication, e.g.: e-mail etc., including a description of the inquiry, but without identifying its source.

(v) Should the Procuring Agency deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under ITB 2.2.3.

(vi) If indicated in the BDS, the Bidder's designated representative is invited at the Bidder's cost to attend a pre-Bid meeting at the place, date and time mentioned in the BDS. During this pre-Bid meeting, prospective Bidders may request clarification of the schedule of requirement, the Evaluation Criteria or any other aspects of the Bidding Documents.

(vii) Minutes of the pre-Bid meeting, if applicable, including the text of the questions asked by Bidders, including those during the meeting (without identifying the source) and the responses given, together with any responses prepared after the meeting will be transmitted promptly to all prospective Bidders who have obtained the Bidding Documents. Any modification to the Bidding Documents that may become necessary as a result of the pre-Bid meeting shall be made by the Procuring Agency exclusively through the use of an Addendum pursuant to ITB 2.2.3. Any addendum or clarification issued by the Procuring Agency through the minutes of pre-bid meeting shall be considered as an integral part of bidding document. Non-attendance at the pre-Bid meeting will not be a cause for disqualification of a Bidder.

2.2.3. AMENDMENT OF BIDDING DOCUMENTS

(i) At any time prior to the deadline for submission of Bids, but not later than three (3) days before the closing time of the submission of Bid, the Procuring Agency, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, may modify the Bidding documents by amendment. Any such change/amendment in the Bidding documents shall be provided in a timely manner,

preferably through electronic means also, not later than three (3) days, and on equal opportunity basis as per Rule-25(3) of Punjab Procurement Rules, 2014.

(ii) All prospective Bidders that have received the Bidding documents will be notified of the amendment in writing or by email, and will be binding on them.

(iii) Before the deadline for submission of Bids, the Procuring Agency for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder or pre-Bid meeting may modify the Bidding Documents by issuing addenda.

(iv) Any addendum issued including the notice of any extension of the deadline shall be part of the Bidding Documents and shall be communicated in writing or in any identified electronic form, e.g. email that secures record of the content of subject communication.

(v) In order to allow prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Procuring Agency, at its discretion, may extend the deadline for the submission of Bids, as per rule 29 of Punjab Procurement Rules, 2014, in the manner similar to the original advertisements, so as to avoid any inconvenience and to doubly ensure level playing field for all prospective Bidders.

2.3. PREPARATION OF BIDS

2.3.1. LANGUAGE OF BID

(i) The Bid prepared by the Bidder, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Procuring Agency shall be written in the language specified in the Bid Data Sheet. Supporting documents and printed literature furnished by the Bidder may be in same language.

2.3.2. BID FORM

(i) The Bidder shall complete the Bid Form and the appropriate Price Schedule (Financial Bid) furnished in the Bidding documents, indicating the simple services for the *Induction Of Eco-Friendly Buses In Rawalpindi* to be provided.

2.3.3. BID PRICES

(i) The Bidder shall indicate on **FORM 8.10 – FINANCIAL BID FORM** the unit prices (where applicable) and total Bid price of the services of which it proposes to provide under the contract.

(ii) Prices indicated on the Price Schedule shall be item wise.

(iii) The Bidder's separation of price components in accordance

with ITB Clause 2.3.3(i) above will be solely for the purpose of facilitating the comparison of Bids by the Procuring Agency and will not in any way limit the Procuring Agency's right to contract on any of the terms offered.

(iv) Prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account, unless otherwise specified in the Bid Data Sheet. A Bid submitted with an adjustable price quotation will be treated as non-responsive and may be rejected.

2.3.4. BID CURRENCIES

(i) Prices shall be quoted as specified in the Bid Data Sheet.

(ii) The Bidders must adhere to the minimum wage rate (notified by Labour & Human Resource Department) and all applicable taxes (imposed by PRA/any other government organization) while preparing Financial bid.

2.3.5. DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY AND QUALIFICATION

(i) Pursuant to ITB Clause 2.1.3, the Bidder shall furnish, as part of its Bid, documents establishing the Bidder's eligibility to Bid and its qualifications to perform the contract if its Bid is accepted.

(ii) The documentary evidence of the Bidder's eligibility to Bid shall establish to the Procuring Agency's satisfaction that the Bidder, at the time of submission of its Bid, is eligible as defined under ITB Clause 2.1.3.

(iii) The documentary evidence, of the Bidder's qualifications to perform the contract if its Bid is accepted, shall establish to the Procuring Agency's satisfaction:

(a) that, in the case of a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods' Manufacturer through **FORM 8.3 – MANUFACTURER'S AUTHORIZATION FORM** or producer to supply the same in Pakistan;

(b) that the Bidder has the financial and technical capability necessary to perform the contract;

(c) that, in the case of a Bidder not doing business within Pakistan, the Bidder is or will be (if awarded the contract) represented by an Agent in that country equipped, and able to carry out the Supplier's maintenance, repair, and spare parts stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications; and

(d) that the Bidder meets the qualification criteria listed in the Bid Data Sheet.

2.3.6. DOCUMENTS ESTABLISHING GOODS' ELIGIBILITY AND CONFORMITY TO BIDDING DOCUMENTS

i) Pursuant to ITB Clause 2.1.4, the Bidder shall furnish, as part of its Bid, documents establishing the eligibility and conformity to the Bidding documents of all goods and related services which the Bidder proposes to supply under the contract.

ii) The documentary evidence of the eligibility of the goods and services shall consist of a statement in the Price Schedule/Financial Bid Form of the country of origin of the goods and services offered which shall be confirmed by a Certificate of Origin issued at the time of shipment.

iii) The documentary evidence of conformity of the goods and services to the Bidding documents may be in the form of literature, drawings, data and shall consist of:

(a) a detailed description of the essential technical and performance characteristics of the goods;

(b) a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period to be specified in the Bid Data Sheet, following commencement of the use of the goods by the Procuring Agency; and

(c) an item-by-item commentary on the Procuring Agency's Technical Specifications demonstrating responsiveness of the goods and services to those specifications, or a statement of deviations and exceptions to the provisions of the Technical Specifications.

iv) For purposes of the commentary to be furnished, the Bidder shall note that standards for workmanship, material, and equipment, as well as references to brand names or catalogue numbers designated by the Procuring Agency in its Technical Specifications, are intended to be descriptive only and not restrictive.

v) Where a sample(s) is required by a procuring agency, the sample shall be:

(a) submitted as part of the bid, in the quantities, dimensions and other details requested in the Bid Data Sheet;

(b) carriage paid;

(c) received on, or before, the closing time and date for the submission of bids; and

(d) Evaluated to determine compliance with all characteristics listed in the Bid Data Sheet.

vi) The Procuring Agency may retain the sample(s) of the successful Bidder till the successful delivery of the goods. A Procuring Agency may reject the Bid if the sample(s)-

(a) do(es) not conform to all characteristics prescribed in the bidding documents; and

(b) is/are not submitted within the specified time clearly mentioned in the Bid Data Sheet.

vii) Where it is not possible to avoid using a propriety article as a sample, a Bidder shall make it clear that the propriety article is displayed only as an example of the type or quality of the goods being Bided for, and that competition shall not thereby be limited to the extent of that article only.

viii) Samples made up from materials supplied by a Procuring Agency shall not be returned to a Bidder nor shall a Procuring Agency be liable for the cost of making them.

ix) All samples produced from materials belonging to an unsuccessful Bidder may be kept by the Procuring Agency till thirty (30) days from the date of award of contract or exhaust of all the grievance forums (including those pending at Authority's Level or in some Court of Law).

x) Pursuant to the requirements as indicated in ITB 2.3.6, the Bidder shall furnish, as part of its Bid, all those documents establishing the eligibility in conformity to the terms and conditions specified in the Bidding Documents for all goods and related services which the Bidder proposes to deliver.

xi) The Bidder shall also furnish a list giving full particulars, including available sources and current prices of goods, spare parts, special tools, etc., necessary for the proper and continuing functioning of the Goods during the period specified in the Bid Data Sheet following commencement of the use of the goods by the Procuring Agency.

The required documents and other accompanying documents must be in English. In case any other language than English is used the pertinent translation attested by the embassy in country of manufacturer into English shall be attached to the

original version.

2.3.7. BID SECURITY

(i) The Bidder shall furnish, as part of its Bid, a Bid Security in the amount specified in the Bid Data Sheet.

(ii) The Bid Security is required to protect the Procuring Agency against the risk of Bidder's conduct which would warrant the security's forfeiture pursuant to ITB Clause 2.3.6.(vii).

(iii) The Bid Security shall be in Pakistan Rupees and shall be in one of the following forms:

(a) Bank call-deposit (CDR), Demand Draft (DD), or Pay Order (PO) valid for twenty eight (28) days, beyond the validity of Bid.

(iv) Any Bid not secured in accordance with ITB Clauses 2.3.6 (i) and (iii) may be rejected by the Procuring Agency as non-responsive.

(v) Unsuccessful Bidders' Bid Security will be discharged or returned as promptly as possible in accordance with (vi) below along with unopened Financial proposal as per rule 38(2)(a)(vii) of Punjab Procurement Rules, 2014, which shall take precedence, and is as under:

"*38(2)(a)(vii) the financial proposal of the Bids found technically non-responsive shall be retained unopened and shall be returned on the expiry of the grievance period or the decision of the complaint, if any, filed by the non-responsive Bidder, whichever is later:*

provided that the Procuring Agency may return the sealed financial proposal earlier if the disqualified or non-responsive Bidder, contractor or consultant submits an affidavit, through an authorized representative, to the effect that he is satisfied with the proceedings of the Procuring Agency".

(vi) The successful Bidder's Bid Security will be discharged upon the Bidder signing the contract, pursuant to ITB Clause 2.6.3, and furnishing the Performance Guarantee, pursuant to ITB Clause 2.6.2 and the Bid Security(ies) of the remaining technically qualified Bidders shall be returned promptly upon the execution of the contract with the successful Bidder.

(vii) The Bid Security may be forfeited:

(a) if a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder on the Bid Form; or

(b) in the case of a successful Bidder, if the Bidder:

(A) fails to sign the contract in accordance with ITB Clause 2.6.3; or

(B) fails to furnish Performance Guarantee in accordance with ITB Clause 2.6.2; or

(C) is blacklisted under relevant provisions of Punjab Procurement Authority Act-2009 and Punjab Procurement Rules, 2014.

2.3.8. PERIOD OF VALIDITY OF BIDS

(i) Bids shall remain valid for the period specified in the Bid Data Sheet after the date of Bid opening prescribed by the Procuring Agency. A Bid valid for a shorter period may be rejected by the Procuring Agency as non-responsive.

(ii) In exceptional circumstances, the Procuring Agency may solicit the Bidder's consent to an extension of the period of validity (as per rule-28 of Punjab Procurement Rules, 2014). The request and the responses thereto shall be made in writing (or by email). The Bid Security provided under ITB Clause 2.3.7 shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder accepting the request will not be required nor permitted to modify its Bid.

2.3.9. FORMAT AND SIGNING OF BID

(i) Bidders are particularly directed that the amount entered on the Form of Bid shall be for performing the Contract strictly in accordance with the Bidding Documents.

(ii) All appendices to Bid are to be properly completed and signed and uploaded on EPADS.

(iii) No alteration is to be made in the Form of Bid nor in the appendices thereto except in filling up the blanks as directed. If any such alterations be made or if these instructions be not fully complied with, the Bid may be rejected.

(iv) Each Bidder shall prepare Bid by filling out (by hand) the forms comprising the Bid. After filling out the forms, all the documents should be signed & stamped by Bidder and will be uploaded on EPADS.

(v) The forms of the Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder. All pages of the Bid shall be initialed and stamped by the person or persons signing the Bid.

(vi) The Bid shall contain no alterations, omissions or additions, except to comply with instructions issued by the Procuring Agency, or as are necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.

(vii) Bidders shall indicate in the space provided in the Form of Bid their full and proper addresses at which notices may be legally served on them and to which all correspondence in connection with their Bids and the Contract is to be sent.

(viii) Bidders should retain a copy of the Bidding Documents as their file copy.

2.3.10. MINIMUM WAGE RATES/ALL APPLICABLE TAXES

(i) The Bidders must adhere to the minimum wage rate (notified by Labour & Human Resource Department) and all applicable taxes (imposed by FBR/PRA/any other government organization) while preparing Financial Bid.

2.4. SUBMISSION OF BIDS

2.4.1 SEALING AND MARKING OF BIDS

(i) Bidders are required to upload Technical Proposal and Financial Proposal on EPADS. No hard copy of the Technical/Financial Bid will be required to be submitted to Procuring Agency directly.

2.4.2 DEADLINE FOR SUBMISSION OF BIDS

(i) Bids must be uploaded on EPADS under BDS not later than the time and date specified in the Bid Data Sheet.

(ii) The Procuring Agency may, at its discretion and as per rule 29 of Punjab Procurement Rules, 2014, extend this deadline for the submission of Bids by amending the Bidding documents in accordance with ITB Clause 2.2.2 & 2.2.3 in which case all rights and obligations of the Procuring Agency and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

(iii) Bids shall be submitted on EPADS on or before Bid Submission deadline.

2.4.3. LATE BIDS

(i) Any Bid submitted online after the deadline for submission of Bids prescribed by the Procuring Agency pursuant to ITB Clause 2.4.2 will not be entertained.

(ii) The Procuring Agency shall not consider for evaluation of any Bid that arrives after the deadline for submission of Bids.

2.4.4. WITHDRAWAL OF BIDS

(i) The Bidder may after its submission withdraw its Bid prior to the expiry of the deadline prescribed for submission of Bids.

2.5. OPENING AND EVALUATION OF BIDS

2.5.1. OPENING OF BIDS BY THE PROCURING AGENCY

(i) Initially, only the "Technical Proposal" shall be opened on the date and time as specified in the Bid Data Sheet; *One Time Password* will be sent to Bidder Authorized Email and/or SMS for Opening of Technical Bids. Bids will be opened through that one Time Password. The Price Bids will remain unopened on EPADS until the specified time of its opening. The Bidders must have access (either present physically or through phone/email at the choice of Bidder) to phone & email address which are already provided to the purchaser for receiving the alerts mentioned above and keep the Bidding Process going.

(ii) The "Financial Proposal" shall be remained un-opened on EPADS.

(iii) The Procuring agency shall evaluate the Technical Proposal in a manner prescribed as per Eligibility Criteria & Qualification Criteria, without reference to the price and reject any proposal which does not conform to these requirements.

(iv) No amendment in the Technical Proposal shall be permitted during the Technical Evaluation.

(v) After technical evaluation is completed, the Procuring Agency shall, invite through Email via email address *[rizwan.aziz@pma.punjab.gov.pk]*, only those Bidders who have submitted substantially responsive Technical Proposal and who have been determined as being qualified to attend the opening of the Financial Proposal. The date, time, and venue for the opening of Financial Proposal will be communicated through email. Attendance of technically responsive Bidders at the opening of Financial proposals is optional. The Procuring Agency will notify Bidders through email who have been rejected on the grounds of their Technical Bids being substantially non-responsive to the requirements of the Bidding Document and their Financial Proposal will remain unopened in EPADS.

(vi) Financial proposals of only the technically responsive Bidders shall be opened on EPADS publicly in the presence of their representatives who choose to attend. The total prices will be read aloud and recorded. One Time Password will be sent to Bidder on already provided email and/or SMS for opening of Financial Bids. Bids will be opened through that One Time

Password.

(vii) Minor oversight, clerical mistakes, other minor inconsistencies that do not alter the substances of the Financial Bid may be corrected by the Procuring Agency. When correcting computation error in case of discrepancy between a partial amount and the total amount or between the words and figures, the lowest formers will prevail.

(viii) Bid found to be the lowest evaluated (accumulated) shall be accepted.

2.5.2. CONFIDENTIALITY

(i) Information relating to the examination, clarification, evaluation and comparison of Bids and recommendation of contract award shall not be disclosed to Bidders or any other persons not officially concerned with such process until the time of the announcement of the respective evaluation report in accordance with the requirements of rule 37 of Punjab Procurement Rules, 2014.

(ii) Any effort by a Bidder to influence the Procuring Agency processing of Bids or award decisions may result in the rejection of its Bid.

(iii) Notwithstanding ITB Clause 2.2.2 from the time of Bid opening to the time of contract award, if any Bidder wishes to contact the Procuring Agency on any matter related to the Bidding process, it should do so in writing or in electronic forms that provides record of the content of communication.

2.5.3. CLARIFICATION OF BIDS

(i) As per rule 33(2) of Punjab Procurement Rules, 2014, to assist in the examination, evaluation and comparison of Bids and post-qualification of the Bidders, the Procuring Agency may, at its discretion, ask any Bidder for a clarification of its Bid including breakdown of prices. Any clarification submitted by a Bidder that is not in response to a request by the Procuring Agency shall not be considered.

(ii) During evaluation of the Bids, the Procuring Agency may, at its discretion, ask the Bidder for a clarification of its Bid. The request for clarification and the response shall be through Email via email address as mentioned in the BDS, and no change in the prices or substance of the Bid shall be sought, offered, or permitted.

(iii) From the time of Bid opening to the time of Contract award if any Bidder wishes to contact the Procuring Agency on any matter related to the Bid it should do so in electronic forms that provide record of the content of communication.

2.5.4. PRELIMINARY EXAMINATION

(i) The Procuring Agency will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the Bids are generally in order.

(ii) Arithmetical errors will be rectified on the following basis:-

(a) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected. If the Supplier does not accept the correction of the errors, its Bid may be rejected, and its Bid Security may be forfeited.

(b) If there is a discrepancy between words and figures, the amount in words will prevail.

(iii) Prior to the detailed evaluation, the Procuring Agency will determine the substantial responsiveness of each Bid to the Bidding documents, pursuant to ITB Clause 2.5.5. For purposes of these Clauses, a substantially responsive Bid is one which conforms to all the terms and conditions of the Bidding documents without material deviations. Deviations from, or objections or reservations to critical provisions, such as those concerning Bid Security (ITB Clause 2.3.6), Applicable Law (GCC Clause 22), and Taxes and Duties (GCC Clause 24) & mandatory Registrations/Renewals will be deemed to be a material deviation. The Procuring Agency's determination of a Bid's responsiveness is to be based on the contents of the Bid itself without recourse to extrinsic evidence.

(iv) If a Bid is not substantially responsive, it will be rejected by the Procuring Agency and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

(v) Prior to the detailed evaluation of Bids, the Procuring Agency will determine whether each Bid:

(a) meets the eligibility criteria defined in ITB 2.1.3;

(b) has been prepared as per the format and contents defined by the Procuring Agency in the Bidding Documents;

(c) has been properly signed;

(d) is accompanied by the required securities; and

(e) is substantially responsive to the requirements of the Bidding Documents.

The Procuring Agency's determination of a Bid's responsiveness will be based on the contents of the Bid itself.

2.5.5. EXAMINATION OF TERMS AND CONDITIONS; TECHNICAL EVALUATION

(i) The Procuring Agency shall examine the Bid to confirm that all terms and conditions specified in the GCC and the SCC have been accepted by the Bidder without any material deviation or reservation.

(ii) The Procuring Agency shall evaluate the technical aspects of the Bid submitted to confirm that all requirements specified in Section VII – Schedule of Requirements & Evaluation Criteria as provided in BDS, have been met without material deviation or reservation.

(iii) If after the examination of the terms and conditions and the technical evaluation, the Procuring Agency determines that the Bid is not responsive in accordance**,** it shall reject the Bid.

2.5.6. CORRECTION OF ERRORS

(i) Bids determined to be substantially responsive will be checked for any arithmetic errors. Errors will be corrected as follows:

(a) if there is a discrepancy between unit prices and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected, unless in the opinion of the Procuring Agency there is an obvious misplacement of the decimal point in the unit price, in which the total price as quoted shall govern and the unit price shall be corrected;

(b) if there is an error in a total corresponding to the addition or subtraction of sub-totals, the sub-totals shall prevail and the total shall be corrected;

(c) where there is a discrepancy between the amounts in figures and in words, the amount in words will govern; and

(d) where there is discrepancy between grand total of price schedule and amount mentioned on the Form of Bid, the amount referred in Price Schedule shall be treated as correct subject to elimination of other errors.

(ii) The amount stated in the Bid will be adjusted by the Procuring Agency in accordance with the above procedure for the

correction of errors. The concurrence of the Bidder shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, its Bid will then be rejected, and the Bid Security may be forfeited or the Bid Securing Declaration may be executed in accordance with ITB 2.3.7.

2.5.7. CONVERSION TO SINGLE CURRENCY

(i) As per rule 32(2) of Punjab Procurement Rules, 2014, to facilitate evaluation and comparison, the Procuring Agency will convert all Bid prices expressed in the amounts in various currencies in which the Bid prices as follows:

For the purposes of comparison of Bids quoted in different currencies, the price shall be converted into a single currency specified in the Bidding documents. If the currency used is not USD, the evaluation will be conducted after converting the currency to USD using exchange rates sourced from xe.com.

2.5.8. POST - QUALIFICATION & EVALUATION OF BIDS

(i) In the absence of prequalification, the Procuring Agency will determine to its satisfaction whether the Bidder is qualified to perform the contract satisfactorily, in accordance with the evaluation criteria listed in BDS & pursuant to ITB Clause 2.1.3.

(ii) The determination will take into account the Bidder's financial, technical, and production/supplying capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information required for eligibility/qualification expressed in Bid Data Sheet as the Procuring Agency deems necessary and appropriate.

(iii) The Procuring Agency will technically evaluate and compare the Bids which have been determined to be substantially responsive, pursuant to ITB Clause 2.5.5.

(iv) The Financial evaluation of a Bid will be on the basis of **FORM 8.10 – FINANCIAL BID FORM** to be decided by the Procuring Agency which must include clear cut instruction regarding evaluation inclusive of all prevailing taxes, duties, fees along with observance of minimum wages etc.

(v) The Bidder that offers the "*Lowest Evaluated Price (accumulated)*" shall be declared the Successful Bidder.

2.5.9. CONTACTING THE PROCURING AGENCY

(i) Subject to ITB Clause 2.5.3, no Bidder shall contact the Procuring Agency on any matter relating to its Bid, from the time of the Bid opening to the time the evaluation report is made public i.e. 10 days before the contract is awarded. If the Bidder wishes to bring additional information or has grievance to the notice of the Procuring Agency, it should do so in

writing.

(ii) Any effort by a Bidder to influence the Procuring Agency during Bid evaluation, or Bid comparison may result in the rejection of the Bidder's Bid.

2.5.10. GRIEVANCE REDRESSAL

(i) As per Rule-67 of Punjab Procurement Rules, 2014, Procuring Agency shall constitute a Grievance Redressed Committee (GRC) comprising of odd number of persons with proper powers and authorization to address the complaints. The GRC shall not have any of the members of the Procurement Evaluation Committee. The Committee may preferably have one subject specialist depending upon the nature of the procurement in addition to one person with legal background as per their availability to the Procuring Agency.

(ii) Any Bidder feeling aggrieved can file its written complaint against the eligibility parameters or any other terms and conditions prescribed in the Bidding documents found contrary to provision of Rule 33, and the same shall be addressed by the GRC well before the proposal submission deadline.

(iii) Any party can file its written complaint against the eligibility parameters or any other terms and conditions prescribed in the Bidding documents found contrary to provision of Rule 34 and the same shall be addressed by the GRC well before the proposal submission deadline.

(iv) Any Bidder feeling aggrieved by any act of the Procuring Agency after the submission of his Bid may lodge a written complaint concerning his grievances not later than ten days after the announcement of the final evaluation reports. Any Bidder feeling aggrieved from technical evaluation may file a grievance within five (05) days of announcement of the technical evaluation report. After completion of the technical evaluation process, the procuring agency shall immediately upload the technical evaluation report on the website of Punjab Procurement Regulatory Authority for obtaining/receiving grievance petitions from the prospective Bidders (if any).

(v) In case, the complaint is filed after the issuance of the final evaluation report, the complainant cannot raise any objection on technical evaluation of the report.

(vi) The GRC shall investigate and decide upon the complaint within fifteen days of the receipt of the complaint. Mere fact of lodging of a complaint shall not warrant suspension of the

procurement process.

2.6. AWARD OF CONTRACT

2.6.1. NOTIFICATION OF AWARD

(i) Prior to the expiration of the period of Bid validity, the Procuring Agency will notify the successful Bidder in writing by registered letter or by email to be confirmed in writing by registered letter, that its Bid has been accepted.

(ii) The notification of award will constitute the formation of the Contract.

(iii) Upon the successful Bidder's furnishing of the Performance Guarantee pursuant to ITB Clause 2.6.2 (i), the Procuring Agency will promptly notify each unsuccessful Bidder and will discharge its Bid Security, pursuant to ITB Clause 2.3.6(v).

2.6.2. PERFORMANCE GUARANTEE

(i) Within fifteen (15) days of the receipt of notification of award from the Procuring Agency, the successful Bidder shall furnish the Performance Guarantee in accordance with the Conditions of Contract, in the Performance Guarantee Form provided in the Bidding documents, or in another form acceptable to the Procuring Agency.

(ii) Failure of the successful Bidder to comply with the requirement of ITB Clause (i) above or ITB Clause 2.6.3 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security along with other remedies available under Punjab Procurement Rules, 2014. After that, the Procuring Agency may decide to award the contract to the next lowest evaluated Bidder, keeping in view the Bid validity time, or call for new Bids keeping in view the concept of value for money as defined under rule-2(ae) read with Principles of Procurement as enunciated in rule-4 of Punjab Procurement Rules, 2014.

2.6.3. SIGNING OF CONTRACT/ISSUANCE OF WORK ORDER

(i) At the same time as the Procuring Agency notifies the successful Bidder that its Bid has been accepted, the Procuring Agency will send the Bidder the Contract Form provided in the Bidding documents, incorporating all agreements between the parties.

(ii) Under rule-63 of Punjab Procurement Rules, 2014, where the Procuring Agency requires formal signing of contract, within seven (07) days of receipt of the Contract Form, the successful Bidder shall sign and mention date of the contract and return it to the Procuring Agency.

(iii) Where no such formal signing is required by the procuring

agency, the procuring agency shall issue purchase order after the receipt of required performance guarantee, as per rule 55 of Punjab Procurement Rules, 2014.

2.6.4. AWARD CRITERIA

(i) Subject to ITB Clause 2.6.2, under rule-55 of Punjab Procurement Rules, 2014, the Procuring Agency will award the contract to the successful Bidder whose Bid has been determined to be substantially responsive and has been determined to be the lowest evaluated Bid, provided that the Bidder has been determined to be qualified to perform the contract satisfactorily.

2.6.5. PROCURING AGENCY'S RIGHT TO VARY QUANTITIES AT TIME OF AWARD

(i) The Procuring Agency reserves the right to increase or decrease the quantity of the services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions, on the analogy of Rule-59 (c)(iv) of Punjab Procurement Rules, 2014.

2.6.6. PROCURING AGENCY'S RIGHT TO ACCEPT OR REJECT ALL BIDS

(i) As per rule 35 of Punjab Procurement Rules, 2014, the Procuring Agency reserves the right to accept or reject all Bids or proposals (and to annul the Bidding process) at any time prior to the acceptance of any Bid or proposal, without thereby incurring any liability towards the Bidders. However, the Punjab Procurement Regulatory Authority may call from the Procuring Agency the justification of those grounds.

(ii) The Bidders shall be promptly informed about the rejection of the Bids, if any.

(iii) The Procuring Agency shall upon request communicate to any Bidder, the grounds for its rejection of all Bids or proposals, but shall not be required to justify those grounds.

2.6.7. RE-BIDDING

(i) If the Procuring Agency rejects all the Bids under rule 35, it may proceed with the process of fresh Bidding but before doing that it shall assess the reasons for rejection and may, if necessary, revise specifications, evaluation criteria or any other condition for Bidders.

2.6.8. CORRUPT OR FRAUDULENT PRACTICES

(i) The Procuring Agency requires that Bidders, Supplier, and Contractors observe the highest standard of ethics during the procurement and execution of contracts.

"Corrupt practices" in respect of procurement process, shall be as given in S-2 (d) of Punjab Procurement Authority Act-2009, which is as follows:

"(d) "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a

public official, bidder or Contractor in the procurement process or in Contract execution to the detriment of the procuring agency; or misrepresentation of facts in order to influence a procurement process or the execution of a Contract, collusive practices among bidders (prior to or after bid submission) designed to establish bid prices at artificial, noncompetitive levels and to deprive the procuring agency of the benefits of free and open competition and any request for, or solicitation of anything of value by any public official in the course of the exercise of his duty; it may include any of the following:

i. *coercive practice by impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence the actions of a party to achieve a wrongful gain or to cause a wrongful loss to another party;*

ii. *collusive practice by arrangement between two or more parties to the procurement process or Contract execution, designed to achieve with or without the knowledge of the procuring agency to establish prices at artificial, noncompetitive levels for any wrongful gain;*

iii. *offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the acts of another party for wrongful gain;*

iv. *any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;*

v. *obstructive practice by harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a Contract or deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements before investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or acts intended to materially impede the exercise of inspection and audit process."*

(ii) Blacklisting & Debarment:

Blacklisted Consultants and those found involved in "Corrupt Practices" are not allowed to participate in bidding.

Substantial Requirements & Procedure for Blacklisting & Debarment:

Asper As per S-17A of Punjab Procurement Authority Act-2009:

"*17A. Blacklisting.– (1) A procuring agency may, for a specified period and in the prescribed manner, debar a bidder or Contractor from participating in any public procurement process of the procuring agency, if the bidder or Contractor indulges in corrupt practice or any other prescribed practice.*

(2) The Managing Director may, in the prescribed manner, debar a bidder or Contractor from participating in any public procurement process of all or some of the procuring agencies for a specified period.

(3) Any person, aggrieved from a decision of a procuring agency, may within prescribed period prefer a representation before the Managing Director.

(4) A procuring agency or any other person, aggrieved from a decision of the Managing Director, may within prescribed period prefer a representation before the Chairperson whose decision on such representation shall be final.]

As per rule 21 of the Punjab Procurement Rules, 2014:

21. Blacklisting.–(1) A procuring agency may, for a specified period, debar a bidder or Contractor from participating in any public procurement process of the procuring agency, if the bidder or Contractor has:

(a) acted in a manner detrimental to the public interest or good practices;

(b) consistently failed to perform his obligation under the Contract;

(c) not performed the Contract up to the mark; or

(d) indulged in any corrupt practice.

(2) If a procuring agency debars a bidder or Contractor under

sub-rule (1), the procuring agency:

(a) shall forward the decision to the Authority for publication on the website of the Authority; and

(b) may request the Authority to debar the bidder or Contractor for procurement of all procuring agencies.

(3) The Managing Director may debar a bidder or Contractor of any procuring agency from participating in any public procurement process of all or some of the procuring agencies for such period as the Managing Director may determine.

(4) Any person aggrieved by a declaration made under rule 20 or a decision under sub-rule (1) of this rule may, within thirty days from the date of the publication of the information on the website of the Authority, file a representation before the Managing Director and the Managing Director may pass such order on the representation as he may deem fit.

(5) Any person or procuring agency aggrieved by an order under sub-rule (3) or (4) may, within thirty days of the order, file a representation before the Chairperson and the Chairperson may pass such order on the representation as he may deem appropriate.

(6) The mechanism or process for barring a bidder or Contractor from participating in procurement process of a procuring agency, procuring agencies and a representation under this rule is specified in the Schedule appended to these rules.

As per Schedule appended with Punjab Procurement Rules, 2014:

Schedule

see sub-rule (6) of rule 21

Blacklisting Mechanism Or Process

1. *The procuring agency may, on information received from any resource, issue show cause notice to a bidder or Contractor.*

2. *The show cause notice shall contain:*

(a) precise allegation, against the bidder or Contractor;

(b) the maximum period for which the procuring agency proposes to debar the bidder or Contractor from participating in any public procurement of the procuring agency; and

(c) the statement, if needed, about the intention of the procuring agency to make a request to the Authority for debarring the bidder or Contractor from participating in public procurements of all the procuring agencies.

3. *The procuring agency shall give minimum of seven days to the bidder or Contractor for submission of written reply of the show cause notice.*

4. *In case, the bidder or Contractor fails to submit written reply within the requisite time, the procuring agency may issue notice for personal hearing to the bidder or Contractor/authorize representative of the bidder or Contractor and the procuring agency shall decide the matter on the basis of available record and personal hearing, if availed.*

5. *In case the bidder or Contractor submits written reply of the show cause notice, the procuring agency may decide to file the matter or direct issuance of a notice to the bidder or Contractor for personal hearing.*

6. *The procuring agency shall give minimum of seven days to the bidder or Contractor for appearance before the specified officer of the procuring agency for personal hearing.*

7. *The procuring agency shall decide the matter on the basis of the available record and personal hearing of the bidder or Contractor, if availed.*

8. *The procuring agency shall decide the matter within fifteen days from the date of personal hearing unless the personal hearing is adjourned to a next date and in such an eventuality, the period of personal hearing shall be reckoned from the last date of personal hearing.*

9. *The procuring agency shall communicate to the bidder or Contractor the order of debarring the bidder or Contractor*

from participating in any public procurement with a statement that the bidder or Contractor may, within thirty days, prefer a representation against the order before the Managing Director of the Authority.

10. *The procuring agency shall, as soon as possible, communicate the order of blacklisting to the Authority with the request to upload the information on its website.*

11. *If the procuring agency wants the Authority to debar the bidder or Contractor from participating in any public procurement of all procuring agencies, the procuring agency shall specify reasons for such dispensation.*

12. *The Authority shall immediately publish the information and decision of blacklisting on its website.*

13. *In case of request of a procuring agency under para 11 or representation of any aggrieved person under rule 21, the Managing Director shall issue a notice for personal hearing to the parties and call for record of proceedings of blacklisting. The parties may file written statements and documents in support of their contentions.*

14. *In case of representation of any aggrieved person or procuring agency under rule 21, the Chairperson shall issue a notice for personal hearing to the parties and may call for the record of the proceedings. The parties may file written statements and documents in support of their contentions.*
15. *In every order of blacklisting under rule 21, the procuring agency shall record reasons of blacklisting and also reasons for short, long or medium period of blacklisting.*

16. *The Authority shall upload all the decisions under rule 21, available with it, on its website. But the name of a bidder or Contractor shall immediately be removed from the list of blacklisted persons on expiry of period of blacklisting or order of the competent authority to that effect, whichever is earlier.*

17. *An effort shall be made for electronic communication of all the notices and other documents pursuant to this mechanism or process."*

(iii) Furthermore, Bidders must keep themselves aware of the provision stated in the Contract.

SECTION – III: TECHNICAL SPECIFICATIONS

3.1. TECHNICAL SPECIFICATIONS

SR. NO.	SPECIFICATION	9-METER VEHICLES
	SECTION 1: SPECIFICATION COMPONENTS	
1.1	**VEHICLES, COMPONENTS AND TRAINING TO BE PROVIDED**	The Procuring Agency will be entering into the Agreement with the manufacturer who will have to supply the buses for the purposes of the Project.
1.1.1	**VEHICLE FLEET SIZE**	63 Nos. - 9 m Pure Electric Buses.
1.1.2	**CHARGING UNITS**	17 Nos. – Slow Chargers 5 Nos. – Fast Chargers
1.1.3	**INSTALLATION OF SLOW & FAST CHARGING UNITS**	The manufacturer will provide slow and fast chargers compatible with the buses. The manufacturer will also install the chargers at respective depot in quantities required per depot or designated locations. The civil works and connectivity establishment will be the responsibility of the Procuring Agency.
1.1.3	**SPARE PARTS PACKAGE**	The manufacturer will be responsible to provide all replacement parts and supplies for all maintenance issues resulting from normal wear and tear as well as items requiring scheduled replacements. The Vehicle Operating Company (VOC) will also be responsible for all materials and associated costs for repair actions caused by road collisions or other unscheduled incidents. The spare parts package as mentioned in the RFP shall be delivered within one month of the delivery of the last bus. The supply of spare parts and supplies by the

SR. NO.	SPECIFICATION	9-METER VEHICLES
		manufacturer will cover the period from the delivery of last bus to completion of first year of operations. There shall be no vehicles unavailable for services due to the lack of spare parts at the depot site. As a minimum, the quantity of spare parts shall be kept at hand at the depot site at all times during first year of operations. If a part or supply item is replaced, the stock at the depot site shall be replenished within 20 days. At the end of first year of operations, the manufacturer will also provide a final stock of spare parts and supplies at the depot facility. The quantity listed in these Technical Specifications lists the minimum spare parts that will be included in the final stock of spare parts at the depot facility. At the end of first year of operations, the manufacturer will also provide documentation on how the Vehicle Operating Company (VOC) will procure any future spare parts and supplies. This information will include a full list of the required spare parts and supplies along with pertinent parts order numbers, estimated lead times for delivery, and payment mechanisms and payment terms.
1.1.4	**MAINTENANCE TOOLS**	The manufacturer shall deliver one set per depot of the specified maintenance tools, software, and diagnostic equipment required to repair, service, and maintain each type of vehicles. The Procuring Agency aims to stock the depot facility with an initial set of required tools that will serve the typical day-to-day requirements of vehicle repair and maintenance. The diagnostic software and equipment are required for evaluating the status of the vehicle and for directing depot staff to take necessary corrective maintenance and repair actions.

SR. NO.	SPECIFICATION	9-METER VEHICLES
		As a minimum, the manufacturer shall provide the following items: • One set per depot (1 depot) of the dollies and cradles necessary for the handling of motors, transmissions and other heavy components requiring specialist handling equipment. • Two sets of all tools per depot (1 depot) required for the maintenance of the principal vehicle components, including all tools for standard maintenance, repair, and re-installing of vehicle components. • One set per depot of maintenance diagnostic software, with a multi-site and multi-use license. • One set per depot (1 depot) of diagnostic equipment to evaluate the status of vehicle components, including diagnostic equipment for the motor unit, gearbox, system electronics, air suspension system, and wheel and axle alignment. These Technical Specifications lists the minimum tools requirements to be provided by the manufacturer at the end of the Term of the Agreement. The manufacturer must also provide a list of any additional tools required to service the vehicles, and particularly the manufacturer must list any specialized tool(s) requirements.
1.1.5	**WARRANTY**	The warranty shall be provided on the chassis, body, and all vehicle components to protect against any defects in design, workmanship, equipment, or materials. With the exception of the structure, electric storage and propulsion system (i.e. battery packs and electric motors), the warranty for all

SR. NO.	SPECIFICATION	9-METER VEHICLES
		other parts and components will commence from the date of delivery of the last vehicle to the end of second year of operations. For the battery packs the manufacturer will provide all necessary replacement for 8 years, for electric motors, the manufacturer will provide all necessary replacements for 12 years or 1.2 million kilometers of service, whichever of these two milestones are realized first and in respect of the slow and fast chargers the manufacturer will provide all necessary replacement for 8 years. The battery packs shall be replaced under this warranty whenever the battery capacity falls below 70% of its original capacity at full charge. The warranty will stipulate that the manufacturer is responsible for all repair and replacement costs due to the premature failure of any part or component due to defects in design, workmanship, equipment, or materials. The warranty will cover all costs associated with repairs or replacements due to the actions of the manufacturer. Among the types of repairs or replacements not covered under the warranty are road collisions or other unscheduled incidents.
1.1.6	**ADDITIONAL ITS HARDWARE**	The manufacturer shall deliver two (02) complete sets of ITS Hardware to be installed in the bus including functional SDKs complete in all aspects with documentation at the time of submission of concept design.
1.1.7	**REGISTRATION, LICENSING AND HOMOLOGATION**	The manufacturer will ensure all vehicles are locally registered, licensed, and homologated by the responsible authorities. While the Procuring Agency will be the named leads in officially registering and licensing the vehicles, the manufacturer shall lead the facilitation of all required processes to ensure registration, licensing, whitelisting of ITS Hardware from Pakistan Telecommunication Authority (PTA) and homologation.

SR. NO.	SPECIFICATION	9-METER VEHICLES
1.1.8	**COST OF INLAND TRANSPORT AND ASSOCIATED INSURANCE TO DELIVERY POINT**	The manufacturer will be responsible to bear all the cost of inland transport and associated insurances while delivering all the Goods to the designated Bus Depot. Insurances procured by the manufacturer should include comprehensive insurance for terrorism, vandalism and sabotage. The manufacturer shall ensure that the relevant insurances shall continue to be valid for three (3) months after the delivery of the Goods to the designated Bus Depot in Rawalpindi, Punjab. In the event any insurance claims arise within this timeframe, appropriate compensations will be ensured in Rawalpindi, Pakistan.
1.1.9	**MAINTENANCE SUPERVISION**	The manufacturer shall provide vehicle maintenance supervision for a period of 12 months from the date of acceptance of last tranche of vehicle. The manufacturer shall be responsible for the maintenance supervision and all tasks/responsibilities required under it since the time first vehicle will be delivered to site, however, contractual completion time of 12 months for maintenance supervision shall start from acceptance of final tranche of vehicles. During this time period, the manufacturer will be responsible for overseeing all scheduled maintenance activities of the vehicles. The Vehicle Operating Company (VOC) will be providing the maintenance staff who will be advised by the manufacturer's maintenance supervisor in carrying out the routine maintenance activities. The manufacturer shall ensure that sufficient maintenance is applied during the 12-months period so that at least 96% of the fleet will be operationally available at any time during system operating hours. "Operationally Available" means

SR. NO.	SPECIFICATION	9-METER VEHICLES
		that the vehicles are in a functional condition that could be utilized in customer services without any restrictions while meeting all requirements in this Technical Specifications. The Maintenance Supervisor position will be full-time (i.e. 40 work hours per week). The maintenance supervision activities will take place at the depot site. The Maintenance Supervisor will work closely with the Procuring Agency to appropriately schedule his/her time at each depot site. During the period of maintenance, the manufacturer shall be responsible for supervising all scheduled maintenance activities of the vehicles. The maintenance services will include but not limited to motor, battery packs, replacement of filters, coolant, spark plugs, fuses, worn wiper blades, worn brake pads and linings or worn clutch linings, replacement of tires (if required), batteries, air conditioning. The manufacturer shall also provide all replacement parts for all maintenance items caused through normal wear and tear as well as scheduled replacements. Conversely, the Vehicle Operating Company (VOC) will be responsible for all repair actions caused by road collisions or other unscheduled incidents mentioned in next para. The Vehicle Operating Company (VOC) shall also be responsible for any maintenance arising out of the following; • Repairs and adjustments required as a result of racing, overloading, negligence, modification, alteration, tampering, disconnection, improper adjustments or repairs, accident and use of add-on-parts/material.

SR. NO.	SPECIFICATION	9-METER VEHICLES
		• Cosmetic or surface corrosion from stone chips or scratches in the paint. Damage or Surface corrosion from the environment such as acid rain, air borne fall out (chemicals, tree sap, etc.), salt, hail, windstorms, lightning, floods, other acts of God and the like is not covered. • Repairs and adjustments caused by improper maintenance not carried out, use of fluids other than the fluids specified in manufacturer's manual. • Normal noise, vibration, wear, tear or deterioration such as discoloration, fading, deformation or blur.
1.1.10	**MAINTENANCE TRAINING PROGRAM**	The manufacturer shall deliver a maintenance training program that will properly prepare the Vehicle Operating Company (VOC) to independently maintain its vehicle fleet after the end of the contract period of maintenance supervision by the manufacturer. The training program will take place at intervals over at least 200 hours of actual training sessions. These sessions will include both classroom instruction as well as hands-on repair work in the depot maintenance area. Approximately 20 persons from Vehicle Operating Company (VOC) will be trained. Prior to the end of the contract period, the manufacturer will also deliver a second set of training sessions. These sessions will specifically address future maintenance issues to be faced by the Vehicle Operating Company (VOC). In particular, this final training will focus on any potential rebuild work or battery pack replacement work that would be required. This second set of training sessions should cover at least 20 hours of training. Approximately 20 persons from Vehicle Operating Company (VOC) will be trained in this

SR. NO.	SPECIFICATION	9-METER VEHICLES
		final training program. The schedule of the maintenance training program is: • Completion of the first maintenance training program: Within maximum of six (6) months from Notice to Proceed. • Completion of the second and final maintenance training program: Prior to closure of contract period.
1.1.11	**DRIVER TRAINING PROGRAM**	In order to facilitate a disciplined operation of the vehicle fleets, the manufacturer shall implement a driver training program that will instill safe and professional driving skills. The training course will culminate in the drivers receiving a course (competency) certificate indicating driving proficiency. The driver training program will prepare the drivers to undertake licensing exams under National law to operate large public transport vehicles. Approximately 160 vehicle drivers over a period of four months. Each trainee shall spend at least 8 hours in the actual road testing of a vehicle during the course of the training program. The selection of the drivers for the course will be the responsibility of the Vehicle Operating Company (VOC). The Procuring Agency will provide the training venue (including classrooms and driver training area preferably inside the depot facility). A total of 80 hours of training, both classroom and road testing, shall be delivered (4 hours per day for 6 weeks). Drivers will be available for training for four hours per day, five days per week during a period of at least 6 weeks.

SR. NO.	SPECIFICATION	9-METER VEHICLES
		The course topics will include: • Driving skills • Traffic regulations • Safety • Emergency protocols • Customer service • Public transport license testing. The actual testing for a National public transport driver's license will be the responsibility of the Procuring Agency and the Vehicle Operating Company (VOC). The manufacturer will therefore NOT be responsible for any direct testing costs, such as application fees. The schedule of driver training program is: Commencement of driver training program: Within maximum of six (6) months after the contract signing date. Completion of driver training program: Within maximum two (02) months after the commencement of driver training program.
1.1.2	**FLEET & CHARGERS DELIVERY SCHEDULE**	Completion of first full unit at Factory: Sixty (60) days from the date of the Effective Date. Delivery of all vehicles comprising of a full (100%) of the 9-meter vehicle quantity: Within 120 days from the date of Approval of Final Production Bus Design. Delivery of Slow & Fast Chargers: The OEM shall ensure delivery of all Slow & Fast Chargers at least 15 days prior to the delivery of bus fleet.

SR. NO.	SPECIFICATION	9-METER VEHICLES
1.1.3	**APPROVAL PROCESS**	As per the relevant provisions of the Manufacturing & Supply Contract including the approvals set out in the agreement.

SECTION 2: SPECIFICATIONS SUMMARY		
SR. NO.	**CRITERIA**	**SPECIFICATION**
1.	Make / Manufacturing	2025 or above
2.	Vehicle length (minimum - maximum)	8.5 – 9.5 meters
3.	Vehicle width (not including mirrors)	2.55 meters
4.	Vehicle height (from road surface to highest point on roof) (maximum)	3.5 meters
5.	Floor height (from road surface to edge of the bus floor)	350 mm
6.	Ground Clearance (minimum)	325 mm
7.	Ceiling height in front passenger area (from interior floor to ceiling) (minimum)	2.1 meters
8.	Clearance at doorway (from interior floor to door header) (minimum)	2.1 meters
9.	Axle load, front axle (maximum)	7,700 kg

10.	Axle load, rear-axle (maximum)	13,000 kg
11.	Grade ability (Fully Laden)	Min 17%
12.	Angle of Approach (Fully Laden)	Minimum 7 degrees
13.	Angle of Departure (Fully Laden)	Minimum 7 degrees
14.	Steering	Driver compartment on right- hand side of vehicle for vehicle operation on left-hand side of Roadway. Power Steering electric assisted with height and angle adjustment.
15.	Useful life of vehicle (projected)	1.2 million km or 12 years
16.	Free door width per passenger door (minimum)	1.2 meters
17.	Number of curb-side passenger doorway	1
18.	Number of manual pull-out boarding bridges from curb-side doors	1
19.	General seat configuration	2 x 2 (predominantly)
20.	Seat pitch (minimum)	730 mm
21.	Seat width (minimum)	420 mm
22.	Number of passenger seats (including preferential seats but excluding flip down seats and driver seat) (minimum)	18
23.	Number of wheelchair bays (minimum)	1

24.	Total number of flip-down seats in wheelchair bay(s) (minimum)	2
25.	Length of wheelchair bay(s) (minimum)	1.3 meters each
26.	Number of seats in front women-only section (minimum)	8
27.	Thickness of flooring material (minimum)	2 mm
28.	Side window height (minimum)	900 mm (excluding last row of seats)
29.	For the median side (right-side) of the vehicle, distance of outside edge of the wing mirror from the vehicle body (maximum)	150 mm
30.	For the curb side (left-side) of the vehicle, distance of outside edge of the wing mirror from the vehicle body (maximum)	200 mm
31.	Tire Construction / Width	Aluminum Alloy Rim, 275 / 70R22.5
32.	Distance between outside edge of tire sidewall to outside edge of vehicle body for front axle (maximum)	125 mm
33.	Distance between outside edge of tire sidewall to outside edge of vehicle body for rear axle (maximum)	80 mm
34.	Power on gradient (minimum)	Maintain 50 km/hr on 4% up grade and 30 km/hr on 8% upgrade when fully loaded.
35.	Projected maximum operating speed (maximum)	80 km/hr
36.	Propulsion system	Pure Electric Bus

37.	Size of electric motor for propulsion system (peak power minimum)	240 kW
38.	Size of electric motor for propulsion system (Rated power minimum)	160 kW
39.	Motor Type	Permanent Magnet Synchronous Motor (PMSM), with the Protection level IP69k.
40.	Battery Type	Lithium-ion (LiFePO4) with protection level IP69k.
41.	Battery Packs Safety	The battery pack is designed with an anti-collision structure, and the test force is not less than 200KN. A nitrogen protection system is required in the battery box to ensure the battery box in an anaerobic environment to reduce the risk of fire when the battery pack is short or thermally out of control in a low oxygen environment. Each Battery pack is equipped with fireproof paper with a fire resistance of 1,300 degree centigrade. A certificate of nitrogen protection system shall be required before or at the time of prototype testing.
42.	Battery Capacity (minimum)	275 kWh
43.	Bus Mileage	Not less than 250 km on single charge (100% to 20% battery consumption) fully loaded with AC working.
44.	Internal idling noise standard (maximum)	60 dB
45.	External idling noise standard (maximum)	65 dB
46.	Turning radius, outer wheel track (maximum)	12.0 meters

For any dimensions in the table above that are not set as a specific range or described as a maximum / minimum value, then the accepted tolerance for a deviation from the given nominal value will be +/- 2%.

SECTION 3: LEGISLATION AND STANDARDS		
3.1	**NATIONAL LEGISLATION AND STANDARDS**	All vehicles shall comply with all national, provincial and local legislation, regulation or by-law as well as with the relevant national standards. All manufacturers are expected to be fully familiarized with the legal requirements of public transport vehicles, of the types proposed, in the given national context.

SECTION 4: WEIGHTS AND DIMENSIONS		
4.1	**AXLE LOADS**	The vehicle axles must be capable of operating with the following maximum loads: • Front axle: 7,700 kg • Middle axle: Not Applicable • Rear axle: 13,000 kg
4.2	**OVERALL VEHICLE WIDTH**	The vehicles shall meet a targeted width of 2.55 meters (variation with ±2%), as measured from one exterior side to the other (excluding wing mirrors).
4.3	**FLOOR HEIGHT**	The vehicles are to be low entry, allowing ease of access for the curb-side boarding. The targeted floor height, based on the distance from the road level to the floor of the vehicle is 350 mm. This dimension must be achieved within a tolerance of +/- 10 mm even when the vehicle is unevenly loaded with passengers bunching on one side. The rear portion of the vehicle (i.e. the portion of the vehicles after the last doorway) may be raised with steps.

4.4	**VEHICLE LENGTH**	The vehicle length may be in the range from 8.5 meters to 9.5 meters.
4.5	**INTERIOR FLOOR TO CEILING**	The interior clearance height (from the vehicle floor to the ceiling) for the front passenger area shall be a minimum of 2.1 m. The interior clearance height (from the aisle way floor to the ceiling) for the raised rear passenger area shall be a minimum of 1.85 m. At the doorways, the minimum clearance height, from the vehicle floor to the door header, shall be 2.1 m. The manufacturers are encouraged to maximize ceiling clearance heights.

SECTION 5: BODY		
5.1	**STRUCTURE**	The body shall be designed to meet a useful vehicle life of 12 years or 1.2 million kilometers, whichever of these two milestones arrive first. The body shall be reinforced at joints where stress concentration may occur. The vehicle shall safely withstand road shocks and other conditions found in urban services. Body paneling shall have adequate thermal and acoustic properties and shall not vibrate unduly while the vehicle is in operation. Bus structure shall meet the structural requirements of structural strengths, stability, deflection, vibration, crashworthiness, roll over protection etc. Amongst others for at least following main loads: • Static Loads • Dynamic Loads

		• Single Wheel bump loads • Double Wheel bump (Diagonally opposite) loads • Braking and acceleration loads • Front-impact loads • Speed breaker loads The structure shall meet the compliance standards for the rollover test stipulated through Regulation 66 of the United Nations Economic Commission for Europe (ECE-R66). Furthermore, when the bus is loaded to GVW, with crush load and under static condition, shall not exhibit deflection or deformation that impairs the operation of the steering, doors, windows, passenger escape mechanism and service doors.
5.2	**MATERIALS AND CORROSION RESISTANCE**	High strength corrosive-resistant material shall be used in construction of the body. Mild steel is the minimum requirement for the vehicles. The use of materials with superior strength, corrosion resistance, and overall durability is encouraged. The use of stainless-steel alloys (such as 3CR-12), high-carbon steel, glass-reinforced plastic (GFRP), aluminum, and other materials should not be considered, particularly for critical sections of the body and structural elements.
5.3	Body Shape	These new buses shall represent an overall transformation of public transport for the metropolitan areas of Punjab. The aesthetics of the vehicles will play a significant role in transforming the public's perceptions of public transport services. The Procuring Agency therefore requires a body design that evokes a modern appearance with sleek and aerodynamic curve lines. This visual effect can be achieved by:

		• a rounded vehicle front with a curved windscreen. • A slanted vehicle front; or • a rounded augmented body piece added to the front roofline of the vehicle. Option 1 (curved vehicle front) and option 2 (slanted vehicle front) may also include the rounded augmented body piece on the roof-top (option 3). A flat vehicle front with no rounded, aerodynamic features will mean that the manufacturer's proposal will be considered non-responsive to the technical requirements.
5.4	**CONDUCIVENESS TO WASHING**	The exterior and body features, including grilles and louvers, shall be shaped to allow complete and easy cleaning by an automatic vehicle washer without snagging washer brushes. Water and dirt should not be retained in or on any feature of the vehicle after leaving the washer.
5.5	**PAINTING**	
5.5.1	**VEHICLE LIVERY**	Vehicle exteriors shall be used for advertisement to generate Non-Fare Revenue (NFR). The details of the final design shall be provided during the pre-production period.
5.5.2	**PAINTING OF VEHICLE BODY**	The painting of the vehicle shall employ modern best practice. Paints shall produce a superior finish that will support efforts to position the system as a choice option for all passengers. It is preferred that the paint materials and application procedures utilized will be as environmental-friendly as is practically possible, including consideration of water-based paints. The paint shall be hard wearing and able to withstand the operating conditions of an urban

		bus. Such wear resistance shall include the ability to withstand regular machine-washing of the vehicles. The process and materials used shall be such as to allow ready repainting of minor scratches and scrapes. All primers, sealers, paint and any other materials used shall be compatible to assure chemical bond, adhesion, overall gloss retention, and to assure full warranty by the manufacturer. The finish coat shall be free of runs, sags, and areas of no gloss. There shall be no bare or exposed metal surfaces showing on the exterior of the vehicles. If vehicle components are to be imported and shipped via sea, then a special coating shall be applied to protect against damage from sea spray. It is to be noted that there will be advertisements on the external side of the bus to exploit Non-Fare Revenue Potential. Hence the paint should be such that it facilitates the purpose.
5.5.3	**UNDERCOATING**	The underside of the under-frame, flooring and stepwells, wheel-housings and all exposed underfloor surfaces shall be treated with a fire-retardant coating.
5.6	**DOORWAYS**	
5.6.1	**NUMBER OF PASSENGER DOORS AND DIMENSIONS**	The vehicle shall have one curb-side passenger doorway. The doorway shall be located between the two axles of the vehicles. The doorway will provide a minimum free width of 1.2 m for ease of passenger entry and egress. The minimum clearance height at the doorway shall be 1.9 m.
5.6.2	**DOOR TYPE AND CHARACTERISTICS**	Doors should be two-leaf inward swinging doors. Structure of the doors, their attachments, inside and outside trim panels, and any mechanism

		exposed to the elements shall be corrosion-resistant. Door panel construction shall be of corrosion-resistant metal or reinforced non-metallic composite materials. The doors, when fully opened, shall provide a firm support and shall not be damaged if used as an assist by passengers during ingress or egress. Door edges shall be sealed to prevent infiltration of exterior moisture, noise, dirt and air elements from entering the passenger compartment, to the maximum extent possible based on door types. The closing edge of each door panel shall have no less than 5 cm of soft weather stripping. The doors, when closed, shall be effectively sealed, and the hard surfaces of the doors shall be at least 10 cm apart (not applicable to single doors). The combined weather seal and window glazing elements of the front door shall not exceed 10 deg of binocular obstruction of the driver's view through the closed door.
5.6.3	**OPENING / CLOSING MECHANISM**	Doors shall be electro-pneumatically operated by the driver and shall be able to be opened or closed independently or in unison with each other. System shall include an audible announcement that informs passengers when the doors are either about to open or close. Door movements shall also be shown by luminous indicators. The indicators shall show red when the door is closed and green when the door is open.
5.6.4	**DOOR SAFETY AND EMERGENCY OPERATION**	A pilot lamp on the driver's dashboard should be provided to warn that the door is open or completely closed. Doors shall not open until the vehicle comes to a stop. Doors shall have an interlock control with brake and accelerator to prevent movement of vehicle with doors in open position. The doors shall function even with the ignition off. Anti-pinch sensors shall be installed to retract the door automatically if any obstruction with a width of 25 mm or greater is caught between any point of

		the doorway. The anti-pinch system will prevent injury due to wrists, ankles, or belongings being caught in the doorway.
5.6.5	**CLOSING FORCE**	Closing door edge speed shall not exceed 30 cm per second, and opening door speed shall not exceed 50 cm per second. Power doors shall not slam closed under any circumstance, even if the door is obstructed during the closing cycle. If a door is obstructed during the closing cycle, the pressure exerted on the obstruction shall not increase once initial contact has been made. Doors shall be equipped with a sensitive edge or other obstruction sensing system such that if an obstruction is struck by a closing door edge, the doors will stop and/or reverse direction prior to imparting a 5-kilogram force on 7 square centimeters of that obstruction. Whether or not the obstruction sensing system is present or functional it shall be possible to withdraw a 3.8-centimeter diameter cylinder from between the center edges of a closed and locked door with an outward force not greater than 16 kilograms.
5.7	**WINDOWS**	
5.7.1	**SIDE AND REAR WINDOWS**	Windows shall be provided along the sides of the vehicle as well as the rear of the vehicle. The side and rear window areas shall be as large as possible to give the seated and standing passengers an unobstructed exterior view. The window unit shall be a minimum of 900 mm in height. The manufacturers are encouraged to provide larger panoramic-styled windows. However last rear window can be smaller in size for any space constraint. Windows shall be of the bonded type. Windows shall not be mounted in rubber moulds. All glass shall be tinted to an approximate level of 70% to 80% light transmission (i.e. glass permits approximately 70% - 80% of light to enter).

		Side windows shall have the look of a seamless or continuous window when viewed from exterior of the vehicle. The exterior of the windows shall withstand damage and scratching from use of vehicle wash system. This would include, but not limited to soaps, spinning brushes, as well as hand brushes. A positive lock type emergency latch shall be furnished on each emergency window frame. Both sides of the vehicle shall have a window decal describing emergency window operation procedures. The driver's side windows shall be split, sliding windows. The sliding portion shall move freely without rocking or binding. Driver windows shall be glazed with tinted laminated safety glass. Glass shall be tinted at the top third (1/3), to meet safety standards.
5.7.2	**OPENING OF WINDOWS**	While the vehicles will be fitted with air conditioning, there will be the option of manually-opened vents to be used in case of air conditioning failure besides the roof vents. These windows shall incorporate an upper transom portion. The transom shall be between 25 and 35 percent of the total window area. The lower portion of the window shall be fixed. The transom portion shall be hinged along the lower edge and open inward. This should be visually merged as much as possible with the fixed windows around them. However, the window vents will normally be locked during periods of the year when air conditioning is to be utilized. The unlocking of the windows should be controllable by the driver via keys whereby driver can walk from the cabin and open them. They should not be unlocked by a passenger. The locking can be done manually at each vent by simply closing them. Moreover, three (3) set of keys should be provided for each bus.

5.7.3	**WINDSHIELD AND WINDSHIELD WIPERS**	The windshield shall be designed for easy replacement and maintenance. Windshields shall be angled sufficiently to reduce glare from the interior vehicle lighting. A fully adjustable sun visor shall be installed for driver's use. The installation shall preclude vibration in normal street operation. The visor shall be a full see through, mesh style with a release cord that allows the visor to return to the normal position. Two electric-operated heavy duty windshield wipers shall be furnished. The wiper motors shall be variable speed having at least a high and low speed setting with an intermittent setting. The windshield wiper system shall include a "self-parking" feature, which means the wiper returns to its base position when the wiper is disengaged. A windshield washer shall also be provided. A heavy-duty, three-speed plus intermittent facility wiper system should be driven by 24-volt electric brushless motor. Wiper arms and blades are to be "Pantograph" type with black finish. Wiper blades must be easily replaceable. Swept area should be maximized to cover driver's forward vision and the driver's view to the nearside exterior rear view mirror at normal driving position. Wiper spindles are to be recessed into front GRP moulding and to be secured by disc-lock nuts. The wiper motor, the linkage assembly and wire connections should be easily accessible for regular maintenance. The wiper arm design (suitable wiper arm tension or appropriate deflectors) should enable normal wiper operation even when the vehicle is running at the maximum speed of 80 kph and under high wind loading condition. The wiper arms and windscreen should not be protruding beyond the front GRP moulding in order

		to prevent damage of windscreen during the operation of bus washing machine. Overload protection for the wiper motor circuit is required. Anti-corrosion materials should be used for the wiper arm and the associated fittings. Wiper blades should be securely mounted to the wiper arms, and can be replaced independently during routine maintenance.
5.8	**EXTERIOR PANELS, ROOF GUTTER AND BUMPERS**	
5.8.1	**EXTERIOR PANELS**	Exterior panels shall be sufficiently stiff to prevent vibration, drumming or flexing while the vehicle is in service.
5.8.2	**ROOF GUTTER**	Roof gutters shall be installed if body style does not stop water flow into or on windows, doors, and mirrors. The roof gutters will be installed over the side windows and doors, if necessary. When the vehicle is decelerated, the gutters shall not drain onto the windshield, or operator's side window, or into the door boarding area. Cross sections of the gutters shall be adequate for proper operation.
5.8.3	**BUMPERS**	No part of the vehicle except Bumpers shall be damaged because of a ten (10) kph impact at the front or rear of the vehicle. The energy absorption system of the bumper areas shall not require service or maintenance in normal operation during service life of the vehicle.
5.8.4	**LICENSE PLATE PROVISIONS**	Provisions shall be made to mount local standard size license plates on the front and rear of the vehicle. The manufacturers are encouraged to arrange license plate dimensions which are standard as per industry practices. These provisions shall direct mount or recess the license

		plates so that they can be cleaned by automatic vehicle washing equipment without being caught by the brushes. License plates shall be mounted according to local rules and shall not allow a toehold or handhold for unauthorized riders.
5.9	**WING MIRRORS**	Vehicles shall be equipped with two outside rear-view mirrors, mounted on each front corner of the vehicle. The wing mirrors shall be motorized. The control switches shall be mounted on the driver's control console. The mirrors shall be fully adjustable to give the driver a full view of the required area. In order to ensure effective driver visibility, the wing mirrors shall have a minimum width of 170 mm and a minimum height of 250 mm.
5.10	**EXTERNAL ACCESS POINTS**	
5.10.1	**EXTERNAL ACCESS DOORS**	Access doors shall be provided, where necessary, for the easy maintenance of equipment. The access doors shall be provided with positive hold open devices and corrosion resistant latches. Access openings shall be sized for easy performance of tasks within the compartment including tool operating space. Access doors shall be of rugged construction and shall maintain mechanical integrity and function under normal operations throughout the service life of the vehicle. They shall close flush with the body surface. When motor access door is open, it shall not obstruct the rear vehicle lights. Access to the motor, transmission and ITS control compartment doors shall be controlled by some form of key access ("T" key style is acceptable). There shall be an access door for emergency workers to gain entry to the "Battery Disconnect" and it shall be labelled as such. This access door shall not require tools to gain access.

5.10.2	**SERVICE AREA LIGHTING**	Lights shall be provided in the motor and all other compartments, where service may be required, to generally illuminate the area for night emergency repairs or adjustments. Sealed lamp assemblies shall be provided in the motor compartment and shall be controlled by a switch located near the rear start controls in the motor compartment. Necessary lights, located in other service compartments, shall be provided with switches on the light fixture or convenient to the light.
5.10.3	**ROOF ESCAPE HATCH/AIR VENTS**	At least one emergency roof escape hatch shall be provided in each vehicle. The hatch shall have a seal around the opening, and shall be opened by pulling the release handle. Instruction decals shall be placed on the underside of the hatch. The roof hatch may also act as a fresh air ventilator at times when the air conditioning is not in use.

SECTION 6: INTERIOR		
6.1	**COLOURS, MAPS, AND ADVERTISING**	
6.1.1	**COLOUR SCHEME**	The colour of the wall panels shall contrast with that of the surface of the floor and this contrast is to be most clearly defined at the junction of the floor to the wall. The actual colours to be utilized will be determined by the Procuring Agency during the pre-production period.
6.1.2	**PANELS AND TRIM**	The interior of the access doors shall blend in with the appearance of the vehicle interior. The interior side walls, ceiling trim panels, and sections between large side windows down to the bottom of the window openings shall consist of an aesthetically-attractive and durable material. The materials must be approved by the Procuring Agency during the pre-production period.

6.1.3	**SYSTEM MAP**	To provide excellence in system legibility, system network maps will be placed on all vehicles. The system maps will be provided in a large size that will be visible to the passenger area to the extent possible. At least two locations should be provided inside the buses for a system map. The actual provision of the maps is the responsibility of the Procuring Agency.
6.1.5	**ADVERTISING**	In order to optimize system revenues, some discrete advertising space will be permitted inside the vehicles. The possible spaces for the advertising include the space above the windows as well as on any partition panels not utilized for the system route map. The advertising spaces will be designed to include mechanisms to hold the advertising in place. The manufacturer will note the proposed locations of the advertising in the submitted interior layout drawings of the vehicle.
6.2	**GRAB-RAILS/STANCHIONS/STRAPS**	
6.2.1	**GRAB-RAILS AND STANCHIONS**	Full grip stanchions and grab-rails shall be provided for the safety of the standing passengers and for ingress and egress. The stanchions and grab rails shall be properly supported and held in place according to industry standards. Ceiling grab-rails, one on each side of vehicle aisle way, shall be even with aisle edge of the seats. If relevant to the chosen interior design, a horizontal passenger assist shall be placed across the front of the vehicle in order to prevent injuries on the windshield in the event of a sudden stop. A high-contrast colour shall be used for the grab-

		rails and the stanchions. The colour will be determined by the Procuring Agency during the pre-production period. The height and number of grab handles should facilitate passenger in having comfortable standing position.
6.2.2.	**STRAPS**	Colour coordinated subway straps shall be installed on grab-rails running length of vehicle. The straps shall be of a soft material such as leather and shall have a positive fastening system.
6.3	**INTERNAL LAYOUT**	The manufacturers shall provide drawings of the proposed interior layout of each vehicle. The chosen layout may be altered through discussions with the Procuring Agency, provided there are no cost implications of such alterations.
6.4	**PASSENGER SEATS**	
6.4.1	**SEATING CONFIGURATION**	In general, seats will be oriented in a 2 x 2 configuration, with the exception of areas such as the back of the vehicle and the flip-down seats in the wheelchair bays. Since customer comfort and personal security is a principal objective, a configuration of 3 x 3 or 3 x 2 is not permitted. For the most part, the seats will face forward. However, the flip-down seats in the wheelchair bays will be orientated to the side. It is also acceptable to include some side-facing or rear-facing seating if the configuration helps to maximize the number of seats. For example, rear-facing seating may be applied for this purpose on the rear-side of the wheel wells.
6.4.2	**SEATING DIMENSIONS**	A minimum 730 mm leg pitch shall be provided. At preferential seats, the clear distance from the front of the seat to the rear of the next seat shall not be less than 230 mm. Where the preferential seat faces a bulkhead or partition more than 1,200 mm in height, this distance is to increase to a minimum of 300 mm.

		The seat width shall be a minimum of 420 mm.
6.4.3	**NUMBER OF SEATS**	A minimum of 18 seats shall be provided. This amount excludes the additional seats provided by flip-down seats in the wheelchair bays. It is expected that the one wheelchair bay of 1.3 m each in length will each be able to accommodate space for at least a total of two flip-down seats.
6.4.4	**STANDING PASSENGERS**	No vehicle is expected to exceed a standing passenger capacity of 6.0 passengers per square meter. However, the axle load specifications have been set to accommodate temporary conditions of over-crowding.
6.4.5	**SEATING MATERIALS**	The base structure of the seat shall be hard, durable plastic. The passenger contact areas at the base and at the back shall be a soft padded plastic material. All materials shall be durable and easily maintained and cleaned. The colour of the seat will be selected by the Procuring Agency during the pre-production period. The colour of the seating in the women-only section of the vehicle shall be different than the colour of the seating in the men's section of the vehicle. The type, style, and colour of the seating materials must be approved by the Procuring Agency during the pre-production period.
6.4.6	**HAND-HOLD RAIL**	All aisle passenger seats shall be equipped with a hand-hold rail at the top of the seat back-rest. A hand-hold rail at the sides is encouraged, since it is often useful for small children.
6.5	**SPECIALS NEEDS SEATING**	The vehicle shall include provisions for wheelchair-compatible open bays.

6.5.1	**WHEELCHAIR BAYS**	Minimum one wheelchair bay shall be provided. Wheelchair bay shall be forward facing. Minimum of 1 wheelchair bay will be accommodated in the wheelchair bay area. Each wheelchair bay shall be a minimum of 1.3 m in length. The wheelchair bay will also accommodate flip-down seating that can be utilized when no wheelchair patron is using the space. The wheelchair bay is to be provided with approved independent passenger and wheelchair restraint systems including seat belts and stanchions as necessary. The equipment is to comply with ISO 10542. The wheelchair bay shall include a headrest backboard to minimize injury in case of an accident or sudden stop. The wheelchair bay shall be designated a priority area for wheelchair patrons as well as other disabled persons and customers with prams. The wheelchair bays shall have signage indicating this prioritization. A pictogram indicating this priority will also be placed adjacent to the exterior of the doorway nearest to the wheelchair bay.
6.6	**DRIVER'S COMPARTMENT**	
6.6.1	**DRIVER'S SEAT**	The driver's seat shall include headrest, high back, dual air lumbar, air operated side bolsters, and an automatic/manual fore and aft slide. The driver's seat shall be upholstered in all cloth fabric. The driver's seat will be equipped with a 3-point seat belt, and a built-in maxi alarm indicating that the brake has not been applied when driver takes pressure off the seat.

6.6.2	**ENCLOSED COMPARTMENT**	The driver's area shall be an enclosed compartment. Behind the driver shall be a partition wall, but the wall shall include a window to allow visibility into the passenger area. To the left-side of the driver shall be a clear upper wall and doorway to allow the driver to have full peripheral vision and to be able to communicate freely with the conductors. The doorway to the driver's compartment shall be lockable for security purposes.
6.6.3	**COMPARTMENT ERGONOMICS**	The manufacturer shall supply state of the art ergonomics engineering to the vehicle driver's environment to maximize driver comfort and ease of operation for extended periods of time. All switches and controls necessary for the operation of the vehicle, including door master, shall be conveniently located in the driver's area and shall provide for ease of operation.
6.6.4	**INTERIOR MIRRORS**	In addition to the presence of cameras and displays, mirrors shall be provided for the driver to observe passengers throughout the vehicle without leaving his/her seat and without shoulder movement.
6.6.5	**SIGNAGE**	Signage shall be provided near the driver's compartment. This signage shall state that passengers shall not address the driver, except in emergency situations. The signage shall also state that the driver carries no cash and that any of abuse of the driver shall result in prosecution.

6.6.6	**COMPONENTS**	The following are the various components to be found in the area of the driver's compartment: • Basic toolbox fitted behind the driver • Horn • ITS components (described below) • Driver's sun visor on both the right and left hand windscreen • Fire extinguisher placed near the driver, approved to national standards • Triangle kit for roadway incidents • Lockable storage holder next to driver to place personal belongings • Provision of space / holders for operating license certificate and valid operational permit on dashboard or driver side window.
6.6.7	**DRIVER CABIN STANDARDS**	Compliance with ISO16121-2

6.7	**FLOOR**	
6.7.1	**FLOOR BASE**	The floor base shall be resistant to moisture and moisture related deterioration. The underframe shall have sufficient stiffeners to keep the flooring from excessive flexing under maximum loads.
6.7.2	**FLOOR COVERING**	The floor covering shall be both aesthetically pleasing as well as durable. The floor covering shall be capable of withstanding daily mopping / wet scrubbing. The floor covering shall be a heavy-duty non-slip material with a minimum thickness of 2 mm. The walking area of the floor shall be level in each section. The colour of the floor at the passenger doorways shall contrast with that elsewhere in the vehicle. In front of each doorway, the floor colour will be a high-contrast yellow to indicate that passengers are not to block that area. The manufacturer shall provide samples of the floor material options being offered. The type and colour of the floor covering must be approved by the Procuring Agency during the pre-production period.
6.7.3	**ACCESS DOORS IN FLOOR**	Floor inspection trap doors shall have a quick-acting coupling system to facilitate the access and maintenance of chassis components. All holes in the floor material, for mounting bolts, seams, etc., shall be caulked and sealed before sanding. Access openings in the floor shall be avoided with the exception of access for the fuel tanks sending unit and driveshaft.
6.7.4	**WHEEL HOUSING**	To the extent, any exposed wheel housings are present in the interior space: The wheel housings shall be trimmed and sealed at its mating edges.

		The colour of the wheel housing shall compliment vehicle interior. The color will be determined by the Procuring Agency during pre-production. The wheel housing shall be finished on the vehicle interior to withstand scuffing, wear and abuse from passenger feet.
6.8	**PARTITION WALLS**	A partition wall shall be installed behind the driver; this barrier shall be transparent above 1,000 mm so that the driver has a clear view of the passenger area. Some of the partition walls will be fitted to accommodate a system map and/or advertising. Partitions shall incorporate hand-holds that assist seated passengers in arising or steadying themselves. Adequate clearance shall be provided for passenger's hand between panel and rear half of door, during complete opening and closing cycle. Material colour and finish to be determined during the pre-production period.
6.9	**FIRE AND SAFETY EQUIPMENT**	The manufacturer shall furnish and install or cause to be furnished and installed a dry chemical extinguisher with hose assembly. The fire extinguishers shall be located in easily accessible locations. The interior of the vehicle shall be fitted with the required fire and safety decals. The placement of the fire equipment and the decals shall be approved by the Procuring Agency during the pre-production period.
6.10	**INTERIOR INSULATION**	Aside from the general thermal and acoustic requirements for the body, any seat area over the motor shall be heavily insulated for both noise and heat protection with fiberglass blankets or approved equal.
6.11	**INTEGRITY**	Water leakage tests should be carried out by the bodybuilder to the satisfaction of the Company prior to the handover of the vehicles. The Company

		shall be advised when such tests are to be carried out so that representatives of the Company can attend if required.

SECTION 7: MECHANICAL / ELECTRICAL DRIVE		
7.1	**MOTOR / PROPULSION SYSTEM**	
7.1.1	**PROPULSION SYSTEM**	The vehicle fleet shall be based on a Full-Electric System where Vehicles should be capable of taking fast charging and slow charging both to drive a total of not less than 275 km on single charge (100% to 20% battery consumption) fully loaded with AC working. The driveline configuration should be optimized in reaching the highest possible energy efficiency to achieve the required vehicle road performance, including but not limited to acceleration and hill climbing capability under a fully laden condition. The bus must be powered by electricity from on board battery packs.
7.1.2	**PROPULSION SYSTEM SERVICE**	The propulsion system shall be arranged so that accessibility for all routine maintenance is ensured. No special tools, other than dollies and hoists, shall be required to remove the propulsion system or any subsystems. However, the Procuring Agency shall recognize that properly rated test equipment and safe electrical work practices are essential when servicing high-voltage components. The air compressor, all motor accessories, and any other component requiring service or replacement shall be easily removable. The manufacturer shall provide or cause to be provided all specialty tools and diagnostic equipment required for maintaining the propulsion system in accordance with the special tools list.

7.1.3	**PRIMARY PROPULSION UNIT AND TRACTION MOTOR**	The propulsion system may be configured in a variety of methods dependent upon type of drive. The definition of motor in the context of this specification assumes that the device can provide or consume energy as well as provide or retard mechanical motion. The function of overheating protection and overheating warning of the electric traction motor should be provided. The power of electric traction motor shall be restricted when respective warning is triggered.
7.1.4	**ENERGY STORAGE AND CONTROLLER**	Design and performance data shall be provided by the manufacturer. Energy storage shall be of a commercial design capable of operating in the relevant transit environment. The primary charging of the energy storage system shall be accomplished by external charger and regenerative braking. Thermal management will be provided to ensure optimal life and performance of the Electrical Storage System (ESS) over the environmental operating range.
7.1.5	**MOTOR CONTROLLER**	The Motor Controller regulates energy flow throughout Bus propulsion system components in order to provide motive performance and accessory loads, as applicable, while maintaining critical system parameters (e.g., voltages, currents, temperatures, etc.) within specified operating ranges. The Controller shall monitor and process inputs and execute outputs as appropriate to control the operation of all propulsion system components. The data from such controller should be retrievable by diagnostic equipment provided and readable for data analysis to ensure performance metrics are met. The temperatures of motor controller should be displayed on the dashboard and warning of overheating should be triggered if the temperature is beyond the optimal operating range.

		Fuses should be placed before the motor controller in the wire bringing current to MCU so in case of any positive variation of current, fuses should blow to protect any voltage variation resulting in capacitors overheating. Motor Controller must be able to perform following function, • Under-voltage protection and alarm; • Control on power reduction for under-voltage; • Overvoltage protection function; • Over-current and short circuit protection; • Overheat protection of motor controller: grading mode, warning in advance, and cooling in the mode of reducing power. • Controllers must incorporate a range of additional features which oversee other vehicle and battery systems, including: • Vehicle control interfaces (accelerator and brake pedal etc.); • Battery communications and pre-charge and isolation systems; • Auxiliary inverters for driving external pump motor and external air compressor motor.
7.1.6	**MOTOR CONTROLLER PROTECTION**	At least IP69k certification for Controller protection. The system includes Integrated drive motor controller, DC/DC converter, steering motor controller, air compressor controller, and high-voltage distribution module.
7.1.7	**COOLANT PUMP**	The electric coolant pump (if fitted) used to recirculate coolant for cooling the electric traction motor or other parts of the powertrain system

		must have the warning function and the corresponding warning should be displayed on the dashboard.
7.1.8	**WATER INTEGRITY**	Motor Control Units (MCU) and all electric motor components designed for IP69k water integrity.
7.1.9	**DRIVE MODE**	The electric motor shall be a direct or single geared drive to the drive axle or wheel hubs.
7.1.10	**DESIGN LIFE**	The propulsion system shall have a design life of at least 1,200,000 kilometers, subject to proper maintenance practices.
7.1.11	**POWER**	The propulsion system shall be sized to provide enough power to enable the vehicle to meet the defined acceleration, top speed and gradeability requirements, and operate all propulsion-driven accessories using actual road test results and computerized vehicle performance data.
7.1.12	**MAXIMUM SPEED**	The vehicle shall be capable of reaching a top speed of 80 km/hr on a straight, level road at GVWR with all accessories operating. The vehicle shall be capable of safely maintaining the vehicle speed according to the recommendations by the tire manufacturer. For actual operational use the vehicle shall be set to limit maximum vehicle speed to 80 km/hr.
7.2	**ENERGY SYSTEM**	
7.2.1	**REGENERATIVE BRAKING SYSTEM**	The regenerative braking shall operate at all speeds and shall be actuated from the brake pedal (an initial primary stage deceleration from throttle pedal release may also be employed as part of a multi-stage regenerative braking control). The regenerative braking shall be integrated with the vehicle's braking system for a smooth and seamless blending with the foundation service brake. The regenerative braking system is to be

		incorporated with the ABS to ensure no wheel slip during slippery conditions. Front and Rear brakes should be disc brakes.
7.2.2	**BATTERY SIZE AND RANGE CAPACITY**	The battery portion of the Full Electric system shall hold a charge capacity capable of delivering a minimum drive range of not less than 250 km. The drive range refers to before bus moves to limp mode to avoid damage to battery system which is usually set around 20% of remaining charge of bus. Battery capacity must be capable of operating continuously and uninterrupted for a minimum of 8 hours in service under all possible conditions but minimized so as not to compromise overall vehicle weight. Longer overnight charging of up to 4 hours will also be provisioned for.
7.2.3	**ELECTRIC MOTOR SIZE**	The electric motor that will provide the power for electric portion of the vehicle's propulsion system shall be at least 240 kW (peak power) in size.
7.2.4	**BATTERY PACK REPLACEMENT**	As per the warranty obligations, the manufacturer shall replace the battery packs on any vehicle once the capacity falls below 70% of its original capacity at full charge.
7.2.5	**BATTERY TYPE**	Lithium-ion (LiFePO4) with protection level IP69k shall be provided. The vehicle must have a set of batteries that allows the features indicated in this document and must be compatible with the chargers offered, and must be able to withstand currents, voltages, and temperatures in different charging events. The battery system must have a thermal management system that ensures that the batteries do not exceed the temperature range recommended by the manufacturer in conditions of maximum ambient temperature of 50°C for a period of 8 hours.
7.2.6	**BATTERY MANAGEMENT SYSTEM**	The BMS shall manage the rechargeable battery system (battery cell or pack) by monitoring its state, measuring and reporting the key operational parameters, protecting and controlling the battery system, and balancing it.

		The BMS shall communicate with the dedicated vehicle controller, charger and instrument in achieving safe, reliable and effective management of battery system. Two levels SOC warning shall be triggered on the dashboard to alert of the low SOC status. The Bus shall be able to travel an additional 50 km when the first level amber SOC warning had been triggered. The dashboard shall be able to display the cell status. The BMS must include following features: • battery measurement (including maximum and minimum value) of cell voltage, charge and discharge current, temperature, current control, and impedance; • safety protection including, but not limited to, over/under voltage, over/under temperature; over current, short circuit, overpressure, current limiting, chassis shorts, fail-safe operation of pack protection circuits, insulation resistance monitoring, anti-humidity and condensation, protection against dust and flood water; • thermal management such as cell temperature monitor and control; • cell balancing; • charge / discharge control; • regeneration braking energy control; • battery state estimation including but not limiting to State of Charge (SOC) • fault detection;

		• communication interface; and • data logging and acquisition.
7.2.7	**BATTERY PACK SAFETY**	The battery pack is designed with an anti-collision structure, and the test force is not less than 200KN. A nitrogen protection system is required in the battery box to ensure the battery box in an anaerobic environment to reduce the risk of fire when the battery pack is short or thermally out of control in a low oxygen environment. Each Battery pack is equipped with fireproof paper with a fire resistance of 1,300 degree centigrade. A certificate is required. The propulsion system shall be separated from the passenger compartment by means of a fireproof wall.
7.2.8	**BATTERY COOLING SYSTEM**	Efficient and robust liquid battery cooling system calling for minimal maintenance.
7.2.9	**SLOW & FAST CHARGERS**	The manufacturer will install slow and fast chargers at respective depot in quantities and locations specified by the Procuring Agency. The charging units shall be compatible with the buses. The charging units should have 2 guns per charger so that 2 buses can be charged at the same time. Slow chargers should have the capacity to charge at 80 kw per hour per gun so that at a time it can dispense out 160 kw per charger. The charger should be designed such that in case a single gun is used, it should dispense out 160 kw per hour. Fast chargers should have the capacity to charge at 160 kw per hour per gun so that at a time it can dispense out 320 kw per charger. The charger should be designed such that in case single gun is used, it should dispense out 320 kw per hour. Productivity of the chargers should not be less than 95% and power factor should be 0.98 or more (above 50% load). The chargers shall comply with relevant IEC standards.

		The chargers should have the provision that during the charging process, the power module can cut off the current output immediately, so as to prevent the occurrence of personal safety accidents.
		
		Moreover, when the input AC voltage is higher than or lower than the rated input voltage range, the power module automatically shuts off, and the voltage is automatically restored automatically after the normal voltage.
		
		The output voltage range should be 100 V ~ 1,000 V.
		
		Safety of Chargers:
		
		• All charging equipment to be independently certified to be compliant with the standard IEC 61851
		
		• All charging equipment exterior casings must be demonstrably capable of achieving the IP69k standard of 'Ingress Protection' from dust, humidity, condensation and flood water. This standard prevails over any other standards quoted within this section of the specifications.
		
		• International series of standard for Low Voltage Electrical Installations (IEC 60364 series) contains a new part dedicated to supply of electric vehicle. First published in 2015 and updated in 2018 defining a set of safety measures for EV charging. The Manufacturer must demonstrate compliance.
		
		• The manufacturer must comply with IEC 60364 part 7-722 which requires electrical safety protective measures to address outdoor charging in public places with reference to:
		
		  • Protection against short-circuits and overloads
		
		  • Protection against electric shocks and risks of electrocution

- Protection against overvoltage

Moreover, the Electric Vehicle Supply Equipment shall be in accordance to the relevant part of IEC 61851 series (Mode 4 for DC charging of electric vehicles). This standard also covers:

- EMC requirements for conductive connection to AC/DC supply
    - Electric vehicle requirements for conductive connection to an AC/DC supply
    - EMC requirements for off board electric vehicle charging systems DC electric vehicle charging station
    - Digital communication between a DC EV charging station and an electric vehicle for control of DC charging.

SR.#	Parameter	Value
1	Rated output power	320kW
2	Rated grid voltage	400V AC (3P+N+PE)
3	Grid voltage range	±15%
4	Rated grid frequency	50 Hz
5	Grid frequency range	±2%
6	Total current waveform distortion rate	<5% (from 50% to 100% Full Load)
7	Power Factor	> 0.99
8	Output voltage	200VDC-1000VDC
9	Output Current	0-500A
10	Voltage regulation accuracy	<1%
11	Output ripple	<0.5%
12	Maximum efficiency	> 95% (From grid power to the charging terminal)
13	Protection class	Outdoor IP54

14	Relative Humidity	5% to 95%
15	Working Environment Temperature	-25° C to 55° C
16	Number of charging guns	Double guns
17	Standard gun cable	5m*2
18	Noise	≤ 65dB

SR.#	Parameter	Value
1	Rated output power	160kW
2	Rated grid voltage	400V AC (3P+N+PE)
3	Grid voltage range	±15%
4	Rated grid frequency	50 Hz
5	Grid frequency range	±2%
6	Total current waveform distortion rate	<5% (from 50% to 100% Full Load)
7	Power Factor	> 0.99
8	Output voltage	200VDC-1000VDC
9	Output Current	0-250A
10	Voltage regulation accuracy	<1%
11	Output ripple	<0.5%
12	Maximum efficiency	> 95% (From grid power to the charging terminal)
13	Protection class	Outdoor IP54
14	Relative Humidity	5% to 95%
15	Working Environment Temperature	-25° C to 55° C
16	Number of charging guns	Double guns
17	Standard gun cable	5m*2
18	Noise	≤ 65dB

7.2.10	**WATER INTEGRITY OF BATTERY PACKS**	The batteries and battery management system (BMS) external casings should be capable of meeting IP69k.
7.2.11	**FIRE SUPPRESSION**	All battery packs and BMS must be covered by a compliant fire suppression system suitable for suppressing electrical fires.
7.2.12	**ISOLATION**	A manually operated isolation switch which disconnects the power circuits from the traction battery supply must be provided in a readily accessible position and it's position shall be clearly indicated externally on the bus.
7.2.13	**BATTERY PACK STANDARDS**	Batteries must comply with the latest safety standards of UNECE R100 (with the possible equivalent alternatives such as IEC62133 or ISO12405) and be independently certified.
7.2.14	**ELECTRICAL SAFETY**	The manufacturer shall strive to minimize any electrical hazards leading to fire, or electrocution to passengers, drivers, other road users or maintenance staff. The Manufacturer shall present evidence that the electrical drive is designed to meet the latest version of the following recognized safety standards or their equivalence: Safety Standards on Functional Safety and Occupant Protection against Electric Shock: • UN/ECE R100, or • ISO 6469-1: 2019, ISO 6469-2: 2018, ISO 6469-3: 2018, ISO 6469-4: 2015 or • GB/T 18384-2020 Safety Standards on Traction Battery Pack (or Module) for Electric Vehicles: • ISO 12405, or • IEC 62660 (2018), or

		• SAE J2464 (2009) or SAE J2929-2013, or • QC/T 743-2006 Electromagnetic Compatibility (EMC) standards for Electric Vehicles: • UN/ECE R10, • GB/T 18387-2017
7.2.15	**BATTERY CELL LIFE CYCLE**	The Charge/Discharge cycle life of battery cells must be at least 3500. The battery capacity must remain greater than 80% after continuous charging and discharging (SOC 20%-100%, 100%-20%) at a charging rate of 1C and discharging rate of 1C, in a laboratory environment of 25 °C after at least 3500 cycles.
7.3	**ENVIRONMENTAL AND SAFETY STANDARDS**	
7.3.1	**NOISE STANDARDS**	In no mode of operation shall the vehicle generate external noise levels greater than 65 dB, measured 15 meters from the centreline of the lane in which the vehicle is travelling. The interior noise at any location greater than 300 mm from an interior window or wall and 1.2 m from the floor shall not exceed 60 dB during any vehicle operating condition. In addition, the manufacturer shall comply with the exterior noise requirements defined in Applicable Laws identified by the Procuring Agency.
7.3.2	**SAFETY STANDARDS**	The vehicle must meet all safety performance standards set for public transport vehicles under the Applicable Standards. The vehicle shall be designed and manufactured in accordance with all applicable fire safety and

		smoke emission regulations. These provisions shall include the use of fire-retardant/low-smoke materials, fire detection systems, firewalls, and facilitation of passenger evacuation. All materials used in the construction of the Passenger Compartment of the vehicle shall be in accordance with the Recommended Fire Safety Practices defined in FTA Docket 90, dated October 20, 1993 or later or another internationally recognized standard approved by the Procuring Agency. Materials entirely enclosed from the passenger compartment, such as insulation within the sidewalls, need not comply. In addition, smaller components and items, such as seat grabrails, switch knobs and small light lenses, shall be exempt from this requirement. Fire sensing and suppression systems shall be provided. The requirements for passenger evacuation provisions related to doors, windows, and escape hatches are defined in Section 5 - Body. Other accident and structural safety standards and tests are either in the Attachment or described and determined throughout this document.
7.4	**DRIVE AXLES**	Single heavy-duty rear axle preferably with a drop centre beam, hypoid reduction gears, full floating axle shafts with optimal gear ratios suitable for urban operations with adequate capacity to take care of maximum GVW & crush loading. Lubricant drain plug would be magnetic type, external hex head. If a planetary gear design is employed, oil level in the planetary gears would be easily checked through plug or sight gauge. Minimum overhaul interval of 6 years.
7.5	**AXLES**	The vehicles shall have two axles. The vehicle should sustain a maximum axle load on the front axle of 7,700 Kgs. The vehicle should be capable of

		sustaining a maximum axle load on the rear axles of 13,000 Kgs.
7.6	**SUSPENSION SYSTEM**	All vehicles shall have air suspension with electronic self-levelling control. The suspension system shall be self-adjusting with respect to any load imbalances that may occur. The basic suspension system shall last the life of the vehicle without major overhaul or replacement. All friction parts or suspension shall be equipped with replaceable bushings and inserts. All axles should be properly aligned so the vehicle tracks accurately within its size and geometry.
7.7	**STEERING**	All vehicles shall be fitted with Electro-hydraulic power steering with steering box to last vehicle life and reduce steering effort. Steering columns shall be adjustable to accommodate driver needs. Height and Angle adjustment as per ISO16121-1
7.8	**BRAKES**	Vehicles are to have Regenerative Electronic Brake Systems designed to ensure safe braking under normal and emergency conditions and appropriate for the operating environment. The braking system shall be balanced such that braking effort is appropriately distributed between all wheels to ensure maximum tire kilometres and equal rate of wear in front and rear brake blocks. The braking system shall meet all current national and local safety standards. An emergency brake release shall also be provided to release the brakes in the event of automatic emergency brake application. The driver shall be able to manually depress and hold down the emergency brake release valve to release the brakes and maneuver the vehicle to safety. Once the driver releases the emergency brake release valve, the brakes shall engage to hold the vehicle in place. Air to the emergency brake release system shall be provided by a dedicated emergency air tank supplied by the electric pump system.

		Disc Brakes at front and at rear wheels. Graduated hand controlled, spring actuated parking brakes acting on rear wheels. Asbestos free brake Pads at all wheels.
7.9	**AIR COMPRESSOR**	Air compressor to be provided to supply braking suspension and ancillaries as required and capable of fully charging the fully evacuated air system within 3 minutes.
7.10	**TIRES AND WHEELS**	
7.10.1	**TIRES**	The tires shall be capable of operational speeds up to 80 km/h with the specified axle loads. The load on any tire at full GVM shall not exceed required tire rating. The tires shall have a radial ply construction. Tires shall be interchangeable between axles on the vehicle.
7.10.2	**TIRE TO BODY DISTANCE**	The effectiveness of the vehicle-to-platform alignment is also affected by the distance from the outer edge of the tire sidewall to the outer edge of the vehicle body. Quite often the tire sidewalls are inset to the inside of the body. The maximum inset distance from the outside edge of the tire sidewall to the outside edge of the vehicle body shall be 125 mm for the front axle and 80 mm for the rear axle.
7.10.3	**WHEEL CHARACTERISTICS**	All wheels on the vehicle shall be of the same size and type interchangeable between front and rear. Each shall be powder coated a colour determined by the Procuring Agency during the pre- production period. The manufacturer shall furnish one full set of wheels, with one spare for every vehicle provided. The wheels should not have joints in between and

		should be in continuous form without any welds visible.
7.10.4	**SPLASH GUARDS/SPLASH APRONS**	Splashguards / aprons made of composition or rubberized material shall be installed on the body around the periphery of the wheel. The design of the splashguards / aprons shall preclude the accumulation of dirt.
7.11	**TURNING RADIUS AND TRACKING**	The turning radius of the vehicles is a critical parameter in determining the vehicle's ability to properly dock at stop/stations. The minimum turning radius of the vehicles is defined through the tracking movement of the front inner and outer wheels. The maximum turning radius for the outer wheels is specified as 12.0 meters.
7.12	**HEATING, VENTILATION & AIR CONDITIONING (HVAC) SYSTEM**	The air conditioning system must be capable of maintaining an average interior temperature of between 23°C and 25°C when the ambient temperature is 45°C. The air conditioning system shall be capable of reaching the targeted interior temperature of between 23°C and 25°C within 30 minutes of vehicle operation when the ambient temperature is 45°C. The system shall continue to provide a cooling function until a cut-off temperature of 50°C. The heating system must be capable of maintaining an average interior temperature of between 18°C and 22°C when the ambient temperature is 0°C. The heating system shall be capable of reaching the targeted interior temperature of between 18°C and 22°C within 30 minutes of vehicle operation when the ambient temperature is 0°C. The system shall continue to provide a cooling function until a cut-off temperature of -5°C. Compliance to these temperature targets will be measured at two points in the vehicle. The first location will be the second passenger row behind the driver. The second location will be the second

		to last passenger row at the back of the vehicle. All measurements will be taken at the height of the seat headrest. The design should be such that it minimizes electricity usage. The system's weight shall also be minimized in order to reduce impacts on axle loads and to reduce impacts on vehicle operating speeds. The system shall be designed to function for the life of the vehicle (12 years) when maintained properly. The air conditioning system shall meet these performance requirements using a specified and approved by Procuring Agency. The coefficient of performance should not be less than 3.5.
7.12.1	**AIR FLOW – PASSENGER AREA**	The cooling mode of the interior climate control system shall introduce air into the vehicle at or near the ceiling height at a minimum rate of 0.7 cubic meters per passenger based on the standard configuration vehicle carrying a number of passengers equal to 1.5 times of the seated load. Airflow shall be evenly distributed throughout the vehicle, with air velocity not exceeding 30 meters per minute on any passenger. The ventilating mode shall provide air at a minimum flow rate of 0.85 cubic meters per passenger. The climate control blower motors and fans shall be designed such that their operation complies with the interior noise level requirements.
7.12.2	**AIR FLOW - DRIVER'S AREA**	The vehicle interior climate control system shall deliver at least 2.8 cubic meters of air to the operator's area when operating in the ventilating and cooling modes. Adjustable nozzles shall permit variable distribution or shutdown of the airflow. The windshield defroster unit shall meet best Practice, Windshield Defrosting Systems Performance Requirements. The defroster or interior climate control system shall maintain visibility through the operator's side window. A separate ventilation, and defroster system for the operator's area shall be provided and shall be

		controlled by the bus operator.
7.12.3	**AIR FILTRATION**	Air shall be filtered before discharge into the passenger compartment. The filter shall meet the US American National Standards Institute / American Society of Heating and Airconditioning Engineers (ANSI/ASHRAE 52.1) requirement for 5 percent or better atmospheric dust spot efficiency, 50 percent weight resistance, and a minimum dust holding capacity of 120 gram per 28 mm cell. More efficient air filtration may be provided to maintain efficient heater and/or evaporator operation. Air filters shall be easily removable for service. Air filters shall be cleanable.
7.12.4	**ROOF VENTILATORS**	Two roof ventilators shall be provided in the roof of the vehicle, one approximately over or just forward of the front axle and a second approximately in the rear section. The ventilators shall be easily opened and closed manually by a 1.5-meter-high passenger. If roof ventilator(s) cannot be reached by this passenger, then a tool shall be provided to allow this. When open with the vehicle in motion, these ventilators shall provide fresh air inside the vehicle. Ventilator shall cover an opening area no less than 0.28 square meters and shall be capable of being positioned as a scoop with either the leading or trailing edge open no less than 10cm, or with all four edges raised simultaneously to a height of no less than 9cm. An escape hatch shall be incorporated into the roof ventilator. Roof ventilator(s) shall be sealed to prevent entry of water when closed.
7.12.5	**MAINTAINABILITY**	Manually controlled shutoff valves in the refrigerant lines shall allow isolation of the compressor and dehydrator filter for service. To the extent practicable, self-sealing couplings utilizing O-ring seals shall be used to break and seal the refrigerant lines during removal of major components, such as the refrigerant compressor. Shut-off valves may be provided in lieu of self-sealing couplings. The condenser shall be located

		to efficiently transfer heat to the atmosphere and shall not ingest air warmed above the ambient temperature by the vehicle mechanical equipment, or to discharge air into any other system of the vehicle. The location of the condenser shall preclude its obstruction by wheel splash, road dirt or debris. HVAC components located within 15 centimetres of floor level shall be constructed to resist damage and corrosion. Must have high and low refrigerant pressure electronic gauges to be in the return air area.
7.12.6	**AIR FLOW SYSTEM OF THE BUS**	In addition to automatic air ventilation system, an option should be available to the driver with push button to collect all breathe air from the roof and exhaust it without recycling during passenger trip. Meanwhile fresh dust free / filtered air of equal proportion is to be pumped in from the driver's side of the bus for normal breathing of passengers.
7.12.7	**SELF-DISINFECTANT SYSTEM**	Each bus shall be equipped with a self-disinfectant system with a liquid tank of sufficient capacity and pressure pump as option available to a driver with push button to spray the whole bus at the end of each trip. The system shall generate a mist of a suitable chlorine based non-flammable self-evaporating disinfectant or any other liquid disinfectant in compliance with available international standards to full fill the purpose in the entire bus prior to start of a trip. As a safeguard the pump system shall remain disabled while the bus speed is non-zero i.e. in a moving bus. The mist shall be used to disinfect the bus in the direction from roof to floor and its discharge points shall be placed proportionally to cover the entire bus from inside.
7.12.8	**AIR CURTAINS**	Air curtains on all access doors to avoid loss / gain of heat and / or cool air when doors are frequently opened for boarding & alighting of passengers with minimum air flow of 1,000 ± 50 m3/hr.
7.13	**HEATING SYSTEM**	A proper Heating System will be provided in the buses for winter season.

7.14	**MAINTENANCE AND SERVICING**	The motor and battery packs shall be arranged so that accessibility for all routine maintenance is assured. No special tools, other than dollies and hoists shall be required to remove the power plant. The motor/accessories shall be removable as one complete unit.
7.15	**TOOLS, SOFTWARE, DIAGNOSTIC EQUIPMENT, AND MANUALS**	
7.15.1	**TOOLS**	The manufacturer shall deliver to the Procuring Agency the following tools: • One complete set per depot (for 9-meter vehicle type) of the dollies and cradles necessary for the handling of motor, transmissions and other heavy components requiring specialist handling equipment. • One complete set of all tools required for the maintenance of the principal vehicle components.
7.15.2	**DIAGNOSTIC EQUIPMENT AND SOFTWARE**	The manufacturer shall provide or cause to be provided 1 set per depot of diagnostic equipment and 1 set per depot of software that permits status evaluation of the critical vehicle components. This equipment and software shall indicate the status of the specified equipment and shall be accompanied by clear information on any required remedial actions. The diagnostic equipment shall provide information on the following vehicle components: • Motor • Battery packs

		• Gearbox • System electronics. • Air Suspension system • Wheel and Axle Alignment • Any codes related to any other component failure
7.15.3	**GUIDANCE AND INSTRUCTION MANUALS**	The manufacturer shall provide or cause to be provided a complete set of vehicle guidance and instructional manuals. These manuals shall as a minimum cover the following topics: • Description of all parts and components, including instructions for assembly and disassembly • Description of maintenance and diagnostic procedures • Troubleshooting recommendations and procedures • Contact details for emergencies, maintenance support, and parts procurement. The manuals shall be provided in correct and proper English. At least four (4) colour printed copies shall be provided. At least three (3) digital copies on three (3) USBs shall also be provided.
7.16	**PERFORMANCE DOCUMENTATION**	The manufacturer shall furnish or cause to be furnished the following performance graphs as part of the bid documentation: • Motor Speed vs. Road Speed • Horsepower vs. Motor Speed • Electricity Consumption Chart (for electric operation)

		• Vehicle Speed vs. Grade (both loaded and unloaded)

SECTION 8: ELECTRICAL		
8.1	**INTERNAL LIGHTING**	The light source shall be located to minimize windshield glare, with distribution of the light focused primarily on the passengers' reading plane while casting enough light onto the advertising display. The lighting system may be designed to form part of or the entire air distribution duct. The lens material shall be translucent polycarbonate. Lenses shall be designed to effectively "mask" the light source. Lenses shall be sealed to inhibit incursion of dust and insects yet be easily removable for service. Access panels shall be provided to allow servicing of components located behind light panels. If necessary, the entire light fixture shall be hinged. When the driver master switch is in the "run" or "night/run" mode, the first light module on each side of the vehicle shall automatically close or dim when the doors are in the closed position and illuminate when the doors are opened. When in "Off" or "On" all lights shall be also on or off.
8.1.1	**PASSENGER AREA**	Energy-efficient lighting such as LED shall be installed in the cover area on both sides and along the total length of the vehicle and shall not occupied on the minimum interior headroom. The lenses shall be made of polycarbonate material and be sealed to prevent the entrance of dust and insects but shall be easily opened for cleaning and service of ballast and lamp.

8.1.2	**DRIVER'S COMPARTMENT**	A driver's compartment lamp, with a full-range dimmer, shall be mounted to illuminate the entire driver's area.
8.1.3	**INTERIOR DOOR LIGHTING**	All door threshold areas shall be adequately illuminated with Light-Emitting Diode (LED) type lights activated only when the door is open. The lights shall be shielded to prevent light from directly shining into passenger or driver's eyes. Light fixtures shall be totally enclosed, splash proof, designed to provide ease of cleaning as well as lamp and housing removal and shall not be easily removable by passengers.
8.2	**EXTERIOR LIGHTING**	All exterior lights shall be designed to prevent entry and accumulation of moisture or dust. Lamps, lenses and fixtures shall be interchangeable to the extent practicable. Two hazard lamps at the rear of the vehicle shall be visible from behind when the motor service doors are opened. Light lenses shall be designed and located to prevent damage when running the vehicle through an automatic vehicle washer. Commercially available LED-type lamps shall be utilized at all exterior lamp locations. LED lamps shall be potted type and designed to last the life of the vehicle.
8.2.1	**HEADLAMPS**	The headlamps shall utilize halogen/LED technology. The headlamps shall have a sealed beam unit. They should be designed for ease of replacement. Headlamps shall incorporate a daytime running light feature.
8.2.2	**EXTERIOR DOOR LIGHTING**	An exterior white LED light shall be provided at each door to adequately illuminate the outside area when the doors open. These lamps shall illuminate the street surface to a level of no less than 11 lux for a distance of 90 cm

		outward from the outboard edge of the door threshold.
8.2.3	**INDICATOR LIGHTS, REVERSING LIGHTS, MARKER LIGHTS AND REFLECTORS**	The indicator lights, reversing lights, marker lights, and reflectors shall have the following characteristics: • LED lights shall be preferred where appropriate. • Direction indicator lights shall be visible from front, rear and sides of the vehicle, with additional side units fitted if necessary. • The vehicle shall be fitted with reversing lights, which shall also engage an audible reversing signal, clearly audible in the vicinity of the vehicle with the motor running. The reversing signal shall be audible buzzer or human voice along with audible buzzer can also be provided. • Marker lights shall be installed, one on each upper corner of the body. • Reflectors at the front, rear and on each side of the vehicle shall be provided. Reflectors shall be installed on both sides of the vehicle.
8.3	**BATTERY AND BATTERY COMPARTMENT**	
8.3.1	**BATTERY**	Battery and starter cable shall be properly bracketed, sized and fastened to carry the maximum loads that may be encountered. Each battery shall have a purchase date no more than one year from the date of release for shipment to the Procuring Agency.

8.3.2	**MASTER BATTERY SWITCH**	A master battery switch shall be provided near the batteries in the battery compartment, mounted to prevent corrosion, for complete disconnection of the electrical system. The master switch shall be capable of carrying and interrupting the total circuit load.
8.3.3	**BATTERY COMPARTMENT**	The battery compartment shall prevent accumulation of debris on top of the batteries and shall be vented and self-draining. It shall be accessible only from the outside of the vehicle. All components within the battery compartment, and the compartment itself, shall be protected from damage or corrosion from the electrolyte. The inside surface of the battery compartment's access doors shall be electrically insulated, as required, to prevent the battery terminals from shorting on the door if the door is damaged in an accident or if a battery comes loose. The battery compartment temperature should not exceed manufacturers specification. The batteries shall be securely mounted on a stainless steel or equivalent tray that can accommodate the size and weight of the batteries. The battery tray, if applicable, shall pull out easily and properly support the batteries while they are being serviced. The tray shall allow each battery cell to be easily serviced. A locking device shall retain the battery tray to the stowed position. Placement of battery packs should not be done below passenger level at 600 mm (placement of battery packs in chassis area is not permitted). If not located in the motor compartment, the same fire-resistant properties must apply to the battery compartment. No sparking devices should be located within the battery box. A reliable fire alarm system should be provided, with sufficient number of fire sensors (at least two) and sufficient length of detector cables to cover the area with high fire risk including but not limited to the areas where the traction battery system are located. When the fire sensors sense an

		abnormally high temperature or other phenomena as specified by the manufacturer indicating that there is potentially a fire at the monitored locations, an alarm should be triggered to alert the driver by means of a buzzer and a warning light at the dashboard. Once the fire warning is triggered, the system should send a signal to deactivate the air conditioning system blower motors automatically.
8.4	**WIRING AND CABLING**	The wiring and cabling on the vehicle shall be color-coded for ease of repair and maintenance as well as safety.
8.5	**STOP REQUEST SYSTEM**	The vehicle shall be fitted with a stop request system to allow passengers to request for the vehicles to stop at a certain stop/ station. Stop-request buttons shall be provided on the hand-hold bars on both sides of the vehicles. The placement of the stop-request buttons shall be such that no passenger is more than 1.2 meters away from a button. An indicator light showing the deployment of the stop request will be visible both in the passenger area and in the driver's compartment. The deployment of the stop request button will also be accompanied by a chime noise.
8.6	**CABLING STANDARD**	All cables should be of adequate capacity, correct rating and fully flexible grades with PVC insulation, and protected where necessary by sleeves, grommets and/or bushes and capable of operation within a continuous 100°C environment. Copper conductors with fire retardant as per IS/ISO:6722:2006 as per appropriate class. Conductor cross- section varying as per circuit requirements, minimum cross- section 0.5 sq. mm. Quality marking may also be as per equivalent European, Japanese, US standards conforming to IP 68.

8.7	**ELECTRO MAGNETIC COMPATIBILITY**	The complete vehicle will need to demonstrate EMC compliance with ECE R10 or equivalent through independent certification.

SECTION 9: INTELLIGENT TRANSPORTATION SYSTEM (ITS)		
9.1	**OVERVIEW OF ITS SYSTEM**	The ITS equipment will consist of components that will be procured and installed by the manufacturer. It includes: • Vehicle Performance Monitoring • Vehicle Weight • Vehicle Logic Unit (VLU) • Communications Unit • Driver Data Terminal (DDT) • Mobile Digital Video Recorder (MDVR) • Vehicle WiFi system • UHF/VHF/Wifi Communication System • External Variable Messaging Display • Internal Variable Messaging Display / Passenger information system • Internal Infotainment Display • Infotainment Display Back Screen • Audio System • Driver Display Unit And On-Board CCTV Cameras • Driver Panic Alarm

		• USB ports • Driver Console • Fare Validator • Automated Vehicle Location System (AVLS) • UHF/VHF/Wifi Communication System The aforementioned ITS equipment will be fitted and installed by the manufacturer.
9.2	**VEHICLE PERFORMANCE MONITORING**	Vehicle performance monitoring is an essential element for effective fleet management and driver control. The manufacturer will monitor and record the most pertinent performance statistics of the major mechanical and electrical components. It is essential that all the vehicles are equipped with performance monitoring that will provide information of, at least, the following: • Speed (wheel based and Tachometer based) • Battery Management System (BMS) • Energy used and remaining energy levels (Battery) • Vehicle distance • Tachograph performance • Handling information • Ambient air temperature • Status of doors and boarding bridges • Time/date • Brake pressures

		• Parking brake status • Gears and alternator status • Direction indicators • Vehicle weight • Battery On/Off Status • Vehicle Health Monitoring Data outputs from the monitoring equipment shall be recorded onto the Vehicle Logic Unit (VLU) for later compilation and analysis. The manufacturer shall confirm or cause to be confirmed the required interfaces and applicable standards during the final design approval process. The driver panel shall include one display meter of carbon footprint/emissions savings compared to a diesel bus, based on battery KWh dispensed. The readings on the meter shall display instant values, daily values and values since commencement of commercial operations of the bus. The monitoring system must comply with an open interface standard for information exchange typically used for Fleet Management Systems (FMS). For these purposes the system must comply with Bus-FMS-Standards (www.bus-fms-standard.com). It shall be capable of transmitting all readings to a remote control room.
9.3	**VEHICLE WEIGHT**	The manufacturer shall measure and record the vehicle weight at different points of time. The data recorded will include the total weight of the vehicle. Preferably, this data will also include the distribution of the weight, and in particular, will include measurement of the axle loads. There will be at least two general uses for the data collected. First, this data shall be correlated to GPS position to estimate the number of passengers on board the vehicle at different segments of the

		route. The weight values shall thus be used to estimate the number of passengers boarding and alighting at each bus stop. Second, the axle load data will help ensure compliance to the legal load- carrying limits of the vehicle. Data from the vehicle weight device shall be recorded onto the Vehicle Logic Unit (VLU) and made available through the Bus-FMS interface.
9.4	**VEHICLE LOGIC UNIT (VLU)**	The VLU is the core computer server for most of the data and ITS functions onboard the vehicle. The VLU shall be placed in a location that allows effective connectivity to the various ITS components over the LAN. The location shall also ensure that the VLU is physically well-protected. The Manufacturer will provide all necessary wiring and cabling for the system and must be completed in all aspects. The Manufacturer will provide complete SDKs of VLU to the purchaser. The VLU must be compatible to function with the ITS components in this specification. The manufacturer shall provide or cause to be provided a description of the technical specifications (hardware, interfaces, and operating system) of the VLU and interface specifications allowing the integration of the unit with: ▪ Vehicle performance monitoring (CAN data) ▪ Communications unit ▪ GPS positioning data ▪ Mobile Digital Video Recorder

- External variable messaging display
- Internal variable messaging display
- Internal infotainment display
- Audio system
- Panic alarm

Note: (Supplier may provide an integrated unit or a standalone unit)

MINIMUM HARDWARE SPECIFICATIONS	
Accuracy	The device must be able to track the location of buses with an accuracy of +/- 10 meters.
Update Frequency	The device must update the location of buses at least once every second.
Communication Protocol	The device must communicate smoothly with other on-board components.
Power Requirements	built-in power supply for last status update.
Durability	The VLU must be durable enough to withstand the rigors of everyday use.

- Real-time location tracking: The device must be able to track the real-time location of buses.
- Data logging: The device must be able to log data about the bus's location, speed, and other operational parameters.
- Communication with other systems: The device must be able to communicate with other systems in the bus, such as the Driver Console and the fare collection system.
- Fault detection and reporting: The device must

		be able to detect and report faults. Note: All relevant functional SDK's & API's, along with their documentation (complete in all aspects) in English Language must be provided but not limited to DOT.NET/Android with Local/International support.
9.5	**COMMUNICATION SYSTEM**	The Communications Unit will control the flow of communications and information between the vehicle and the control center. This includes both real-time data exchange as well as stored information for later downloads at the depot. The communication system will also permit verbal communication between the driver and the control center. The verbal communications system will be designed so that the driver may communicate hands-free of the device, but still capable of hearing vehicle cabin sound. The Communications Unit will provide connectivity through 3G and 4G mobile networks. The Communications Unit will provide at least two slots for different SIM cards, and thus enabling the option of multiple simultaneous 3G/4G connections. Due to concerns regarding the reliability of the existing 3G and 4G mobile networks, the provision of communications via UHF/VHF radio bandwidths with all the necessary peripherals on both sending and receiving ends should also be provided by the Manufacturer as a complete communication solution over UHF/VHF. Note: Equipment will be covered under 01 (one) year standard manufacturer's warranty.
9.6	**DRIVER DATA TERMINAL (DDT)**	The Driver Data Terminal (DDT) is a computing device that enables the driver to visually understand vehicle performance and parameters. The device shall be equipped with a color LCD touchscreen display designed for operation in a public transport environment and shall be managed and controlled by the VLU. Note: Equipment will be covered under 01 (one) year standard manufacturer's warranty.

<table>
<tr><td></td><td></td><td>QTY: 1 in each bus</td></tr>
<tr><td>9.7</td><td>MOBILE DIGITAL VIDEO RECORDER (MDVR)</td><td>All CCTV footage shall be recorded on-board by the Mobile Digital Video Recorder (MDVR). The MDVR shall be connected to the VLU for management purposes. Video footage on the MDVR will be downloadable at the depot if required.

MDVR must have the capability to store recordings for seven days. The device must be able to record video and audio.

MDVR should support real-time video streaming to a third-party server over the internet via secure transmission protocol, ensuring low-latency data transfer and compliance with network security standards.

The MDVR should feature a combination of multiple industrial Ethernet and analog ports while ensuring seamless integration with all onboard devices via dedicated LAN interface. The system must support Ethernet-based connectivity for data transmission, device synchronization, and efficient network communication, enabling a unified and scalable architecture.

The MDVR should be compatible with AI camera systems installed in the buses.
<table>
<tr><th colspan="2">MINIMUM HARDWARE SPECIFICATIONS</th></tr>
<tr><td>OS</td><td>Linux or Android</td></tr>
<tr><td>CPU</td><td>Dual core with 1.3Mhz at least</td></tr>
<tr><td>Communication</td><td>WIFI, 3G, 4G,</td></tr>
<tr><td>Minimum Resolution</td><td>1080p</td></tr>
<tr><td>Video Input</td><td>8 Channel with 4 additional digital input (minimum 720p, 25/30 fps per channel, H.264/ H.265 encoding)</td></tr>
<tr><td>Video Output</td><td>1 Channel</td></tr>
<tr><td>GPS</td><td>The device must be able to track the location of buses with an accuracy of +/- 10 meters and should have an external antenna.</td></tr>
</table></td></tr>
</table>

Storage	Min 1TB SATA
Interface	RS232 RS485 Digital IOs for bus sensors interface Industrial-grade LAN connected with all devices installed in the bus LAN interface (100M/1G) CAN Bus USB
Power Input	Built-in power supply for last status update
Alarms	Panic, Over speed, Geo-Fence Power Failure, Gate Opening
Device Maintenance	OTA, USB Upgrade, Remote management (Refer to 9.18)
Additional Software feature	FTP, remote and local SSH, root access, RTSP

Data Required using CAN Bus:

I. Acceleration and Deceleration
II. Breaking (All kind of brakes)
III. Gear Shifting for automatic transmission
IV. Battery Capacity Information
V. Motor RPM
VI. Bus Speed
VII. Doors Control (Open/Close) Information
VIII. Bus Saloon Temperature
IX. Motor Temperature
X. Battery On/Off Status
XI. Passenger Count
XII. Mileage

DBC file or equivalent documentation for precise signal decoding The device must be able to record video and audio.

Note: Equipment will be covered under 01 (one) year standard manufacturer's warranty.

QTY: 1 in each bus

Note: All relevant functional SDK's & API's, along

		with their documentation (complete in all aspects) in English Language must be provided but not limited to DOT.NET/Android with Local/International support.
9.8	**VEHICLE WI-FI**	The vehicle shall provide free Wi-Fi to passengers. The Manufacturer will procure and install the vehicle Wi-Fi system. The Wi-Fi equipment will include a 4G receiver and router. The minimum download speed for the Wi-Fi system within the vehicle shall be at least 3.0 megabits per second (Mbps). The Manufacturer will be responsible for fitting and installing the Wi-Fi receiver and router into the vehicle. The fitting of the equipment will be provided in a manner to ensure Wi-Fi connectivity in all passenger sections of the vehicle. The Manufacturer will provide all necessary wiring and cabling for the system. The passenger Wi-Fi may also be provided by a receiver and router integrated with the vehicle Communication Unit (see 9.5 above). QTY: 1 in each bus Note: Equipment will be covered under 01 (one) year standard manufacturer's warranty.
9.9	**EXTERNAL VARIABLE MESSAGING DISPLAY**	An external variable messaging display shall be provided on the top front and back of the vehicle, as well as curb side of the bus. The external variable messaging display will indicate three possible types of information: 1. Route destination; 2. Name of route; and 3. Emergency messages. The external display shall utilize high brightness, wide viewing angle, and amber LED technology. LED brightness shall be controlled by photocells installed as part of the sign.

		The controller shall communicate with the on-vehicle VLU. It shall also be possible to override messages directly from the control center under emergency conditions. The display shall be capable of showing upper- and lower-case characters with proportional fonts. The display shall be capable of showing double-stroke width (bold) fonts. The front face of the display shall be designed to minimize glare. The display shall have the functionality to display messages in the following modes, set through configuration data: ▪ A single, non-scrolling or changing message ▪ A right-to-left scrolling message ▪ An alternating (between two states) message. The LEDs shall have a minimum service life of 80000 hours in their installed configuration. The system shall be designed for continuous operation without the need to manually computers or devices. Visible messages shall begin playing within five (05) second of being triggered. External variable message signs shall be capable of displaying the message in Urdu and English dynamically/remotely. QTY: At least 3 in each bus Note: Equipment will be covered under 01 (one) year standard manufacturer's warranty. Note: All relevant functional SDK's & API's, along with their documentation (complete in all aspects) in English Language must be provided but not limited to DOT.NET/Android with Local/International support.
9.10	**INTERNAL VARIABLE MESSAGING DISPLAY / PASSENGER INFORMATION SYSTEM (VEHICLE GRADE)**	Two internal variable messaging displays shall be provided in the front portion and middle of the vehicle. The display will provide the following types of information: ▪ Name of next stop/station

- Route name and route map
- Route destination Time

The onboard displays shall utilize high brightness, wide viewing angle, liquid crystal display (LCD) technology. The display will be readable for a distance of up to 8 meters. Messages on the displays shall be legible during any time of day and from any designated passenger position on the bus. The proposed location of the display will be mentioned in the tenderer's vehicle layout drawing.

During the pre-production stage, the Purchaser will specify the font type, color of the background, color of the lettering, and the use of any branding on the display.

Internal variable message sign shall be capable of displaying the message in Urdu and English.

MINIMUM HARDWARE SPECIFICATIONS	
Screen Size	28 to 34 inches as per the size available in Bus
Luminance	Must be clearly visible in day light
Display Colors	16M
Operating System	Android 9.0 or higher
Resolution	720p or higher
Display Interface	HDMI/VGA
Networking Interface	LAN interface
Peripherals	USB2.0/USB3.0 x1, SD Card, Audio Output
Memory	2GB RAM, 8GB Storage
Protection	4mm tampered protective glass on screen Metal Case
Video Support	MP4, AVI, MPEG
Image Support	JPEG, PNG
Audio Support	MP3
Device Maintenance	OTA, USB Upgrade, Remote management (Refer to 9.18)
Additional Software feature	FTP, remote and local SSH, root access

		1) The passenger information shall comprise of following features: a) The Passenger Information System Display Unit shall receive display information and voice announcement commands from the on-board GPS vehicle control module based on stored memory on the bus. b) The Passenger Information System Display Unit shall function as independent system and shall not be directly dependent on the Central System. c) There shall be scrolling display of destination in Urdu & English alternatively along with fixed route number. d) The audio message and the video display shall be clearly audible/visible in all weathers inside the bus. e) Integration of Multimedia System to broadcast audio messages. f) Link to the internal/external system(s) remote & local server in real-time. All relevant SDK's and API's in English Language is compulsory with Local/International support. g) Collection of all records required for the accounting and reporting purposes. 2) All supplied AFC items (including all hardware, software, networking, fare media etc. should be integrated with third party Mobile Application both Android & IOS. 3) All relevant functional SDK's & API's, along with

		their documentation (complete in all aspects) in English Language must be provided but not limited to DOT.NET/Android with Local/International support. Provided hardware should have capability to work in decentralized/centralized mode. Note: Equipment will be covered under 01 (one) year standard manufacturer's warranty. QTY: 2 in each bus
9.11	**INFOTAINMENT DISPLAY BACK SCREEN**	An internal rectangular infotainment display screen shall be provided at the back of the bus for advertisement purposes. This screen shall be visible to commuters outside the bus in mixed traffic and pedestrians. The displays shall utilize high brightness, wide viewing angle, LCD technology. The display resolution shall be at least 1920 x 1080p. The displays will be enclosed in a tamperproof casing with toughened glass. The surface of the display shall be coated with an anti-glare layer to enable viewing during any time of the day. Content for the infotainment display will be stored and connected via the VLU. Standard video signal input ports will be provided. The size of the screen shall be finalized at the concept design stage of bus. However, it is envisaged that this screen will cover entire back windscreen.
9.12	**AUDIO SYSTEM**	The audio system shall be capable of both digital audio messages programmed into the Vehicle Logical Unit (VLU)/MDVR as well as public address messages from the driver. The audio system will be programmable in relation to the vehicle position in order to automatically deliver specific bus stop information. Upon arriving at a bus stop, the digitally-recorded message will announce the bus stop name as well as the name

		of possible transfer routes. A digital announcement will also be made noting that the doors are opening. Upon departing a station, a digitally-recorded message will note the doors are closing. The digital announcement will then note the route name, final destination, and the next bus stop. Messages from the driver on the public address system will only occur to announce special messages or situations, such as reasons for delays or emergency instructions. The digital recording of the messages will be the responsibility of the Purchaser. The volume of the announcements shall be adjustable to a standard level through configuration data. The system shall include an automatic gain control to automatically and independently adjust interior and exterior volumes depending on interior and exterior ambient noise levels. The audio system will be controlled by the VLU/MDVR and the input ports must therefore be able to interface with the VLU/MDVR. Note: Equipment will be covered under 01 (one) year standard manufacturer's warranty. QTY: 1 in each bus
9.13	**DRIVER DISPLAYS AND ON-BOARD CCTV CAMERAS**	Closed-circuit television (CCTV) cameras shall be provided for vehicle surveillance to ensure passenger security and vehicle safety. The vehicle shall be fitted with at least seven CCTV cameras. One camera will cover the front curb-side door and the driver compartment. One camera will cover the front passenger area as well as the middle doorways. One camera will cover the rear passenger area. One camera will face behind the vehicle, and thus will assist the driver when reversing. One camera will be mounted on the dashboard, acting as a 'dashcam', to continuously record the view through the vehicle's front windscreen. 2 camera on each entry/exit gate must be installed for passenger counting system.

		Output from the cameras will be shown through a visual display on or near the dashboard. The driver shall have a visual digital display of the area behind the vehicle whenever the vehicle is in reverse gear. The video footage from these cameras shall also be stored on-board on the Mobile digital video recorder (MDVR). The Manufacturer will provide all cabling and connectivity between the cameras and the MDVR. In normal conditions, the video footage will be downloaded when the vehicle enters the depot. The Manufacturer must design the system so the data can be readily downloaded after the vehicle enters the depot. In emergency situations, the system shall allow streaming of onboard footage to the control center. The Manufacturer shall ensure the video output can be integrated with the control center's hardware and software. All cameras will be integrated into the interior layout of the vehicle in a visually appealing manner. The precise location of the cameras will be determined in the pre-production phase with approval from the Purchaser. Both the cameras and the dashboard displays should ideally be highly visible to the passengers to give assurances that their security is being surveilled. Note: Equipment will be covered under 01 (one) year standard manufacturer's warranty. QTY: AI CAMERAS: DMS (Driver Behavior Monitoring System) x1 Passenger Counting at entry/exit passenger gate x2 SURVEILLANCE CAMERAS: General surveillance x2 Reverse Gear x1 Dashcam x1

9.14	**DRIVER PANIC ALARM**	The panic alarm will be utilized in circumstances in which the driver is not able to utilize the normal communications system. The panic alarm shall be located discretely in the driver's compartment. The location should be such that it is known to the driver but not clearly evident to passengers. The Manufacturer shall provide the button and the wiring required to connect it to the VLU. Note: Equipment will be covered under 01 (one) year standard manufacturer's warranty. QTY: 1 in each bus
9.15	**USB PORTS FOR PASSENGER DEVICES**	The provision of USB ports in the passenger seating area will allow customers to charge their personal devices while travelling on public transport. This service helps further encourage ridership. The preferable configuration would be a USB Type-A & Type-C ports provided behind each seat or at the vehicle interior sidewall for seats without another seat directly in front. Note: Equipment will be covered under 01 (one) year standard manufacturer's warranty. QTY: 1 for each seat
9.16	**FARE VALIDATOR**	The on-board fare validators will be required at the curbside doorways. The on-board fare validators will be pre-installed by the Manufacturer of the buses. The Manufacturer will be responsible for purchasing, fitting, installing and testing the on-board fare validators into the vehicle. The Manufacturer will also ensure the integration of the on- board fare validators with the VLU/MDVR over a dedicated wired connection, preferably LAN interface. The Manufacturer will provide the wiring and cabling to connect the fare validators. The on-board fare validators will be located at each curb-side doorway (a total of two fare validators on the vehicle).

LAN connectivity, along with LAN cabling shall be ensured by the manufacturer with the rest of the ITS ecosystem.

Must be covered in concealed Anti-dust casing

Position (Protection from frequent contact / damage)

Wiring (Concealed & not exposed to public)

Buttons (Not exposed to public)

The software development for Fare Validation will be done by an ITS service provider, which is contracted by the client. The Manufacturer will work closely with the Purchaser/ITS service provider to determine the size and location of installation of the on-board fare validators in the bus.

During the pre-production and production period, the Manufacturer shall communicate with the Purchaser/ITS service provider regarding any clarifications required. A representative of the ITS company will inspect the prototype bus to ensure all issues are resolved The Manufacturer shall work in close consultation with the Purchaser/ITS service provider to ensure full functionality with physical and software integration, including the exact size of the units and the electrical requirements.

MINIMUM HARDWARE SPECIFICATIONS	
Payment Modes	Smart card, bank EMV card, mobile QR payment, NFC payment
Processing	4 cores, at least 2.0 GHz, 3GB RAM 16GB flash MicroSD support 500,000 data record supported
Operating System	Android 9.0 or higher
Display	7 inch, 1024*600 resolution
Indications	2 LED status indicators

	4 function keys Built-in buzzer Built-in speaker Real-time Clock
Contactless Smart Card Reader	Support ISO / IEC 14443 A & B, Mifare EV1 EV2, Felica Card, in line with EMV specifications, NFC enabled
SAM slots	ISO7816 SAM slots x2
Physical Interface	1x RS232/RS485 interface 1x RJ45 LAN interface 1x USB 2.0/3.0 interface 1x USB debugging interface
Wireless Connectivity	4G, Wi-Fi and GPS All interfaces should be registered from concerned authorities
Device Maintenance	OTA, USB Upgrade, Remote management (Refer to 9.18)
Additional Software feature	FTP, remote and local SSH, root access
Certifications	EMV L1, EMV L2 certificates must be provided by the supplier and also ensure EMV L3 support to ITS service provider etc.
Durability	Robust and rugged design, suitable for in-vehicle use
Operating Temperature	-10°C to +70°C
Vibration and Shock testing(s)	60068-2-6, 60068-2-27, EN60721-3-5

1) The Fare Validator shall comprise of following features:

   a) The Validator shall be capable of performing a transaction with ISO 14443 “Type A/B” cards, including the reading and writing of

		user data in memory. b) For all its data connection, recording, and transmission, validator shall use the latest security standards. c) The Validator must have capability to accept not only contactless cards but also QR tickets and mobile application generated QR codes as a payment option. d) The validator should read cards at a distance of 0mm to 30mm, but shall not operate at a distance that introduces a risk of unintentional operation (tolerance limit ±5%). e) The validator shall read, write and verify all required data for the transactions associated with fare media to permit the application of all the business rules and collection of all records required for the accounting and reporting purposes. f) Transaction time shall not exceed 300ms. g) Validator should have RTC in-built for clock management and should have onboard memory to manage business rules. h) The validator will be integrated with the VLU/MDVR in order to process fare data. i) Link to internal/external system(s) remote & local server. j) All relevant functional SDK's and API's, including open loop SDKs along with their documentation (complete in all aspects) in

		English language must be provided with Local/International support but not limited to Android. k) Payment Application: Complete functional payment application for open look payment such as visa, master and other payment schemes must be provided by supplier. EMV L3 support must be ensured by the supplier and ensure all Level 3 cases are passed. 2) The fare validator must have the ability to read QR and NFC through an integrated or separate module. 3) All supplied AFC items (including hardware, software, networking, fare media etc.) should be integrable/compatible with third party Mobile application both Android & IOS. Provided hardware should have capability to work in decentralized/centralized mode. Note: Equipment will be covered under 02 (two) years standard manufacturer's warranty. QTY: 2 for each door
9.17	**AUTOMATIC VEHICLE LOCATION (AVL) SYSTEM**	All vehicles in the system will be tracked by an Automated Vehicle Location (AVL) system utilizing Global Positioning System (GPS) technology. Data from this system will form the basis of compensation to the vehicle operators, and therefore, this represents a critical data collection feature for the overall operation of the system. The AVL system also provides instructions to the drivers to maintain the correct headway between vehicles. The AVL system will provide real-time, automatic information to drivers on the correct speed in order to maintain the headway. The system will clearly display on the driver console the target speed in real-time to maintain the headway. The AVL system thus encompasses all hardware and software components to achieve real-time positioning control of the vehicle. The AVL unit will be fitted into the driver console in an ergonomic

		manner. The AVL unit will also be integrated with the Vehicle Logic Unit (VLU), allowing it to: ▪ Relay vehicle performance data to the Control Centre ▪ Receive GPS positioning data ▪ Relay the video to the Control Centre ▪ Control the content on all messaging and infotainment displays ▪ Feed the audio system with audio ▪ Relay panic messages to the Control Centre. The AVL system of the entire fleet will be monitored from the operational control center. The Purchaser is separately procuring a third-party agent, an ITS Company, to supply and operate the control center. The same ITS Company will be responsible for the supply of all components required to monitor the fleet from within the control center. These components include workstations, communications equipment, and software licenses. The AVL and GPS shall be pre-fitted in the bus. The Manufacturer will work closely with the Purchaser/ITS company to determine the size and location of the AVL system being provided by the Manufacturer. During the pre-production and production period, the Manufacturer shall communicate with the Purchaser and ITS service company. The Manufacturer shall work in close consultation with the ITS company to ensure full functionality with physical and software integration, including the exact size of the units and the electrical requirements. Note: Equipment will be covered under 01 (one) year standard manufacturer's warranty.

		QTY: 1 in each bus
9.18	Driver Console	

MINIMUM HARDWARE SPECIFICATIONS	
Processor	Minimum quad-core processor
RAM	Minimum 4GB RAM
Flash	16GB flash
Storage Capacity	Minimum 64GB or equivalent
External Card Reader	MicroSD card reader
Display	Touchscreen display with a size of 9-12 inches with 720p 1280*800 min
GPS	High sensitivity GPS module with external antenna
Connectivity	GSM/GPRS, 4G/LTE module, Wi-Fi and GPS connectivity with external antennas
Contactless Card Reader	Support ISO / IEC 14443 A & B, Mifare
Durability	Robust and rugged design, suitable for in-vehicle use
SAM slots	ISO7816 SAM slots x1
Physical Interface	1x RS232/RS485 interface 1x RJ45 LAN interface 1x USB 2.0/3.0 interface 1x USB debugging interface
Operating Temperature	-10°C to +70°C
Vibration and Shock testing(s)	60068-2-6, 60068-2-27, EN60721-3-5
Minimum Software Specifications	
Operating System	Android 9.0 or above
Fare Collection System Integration	Complete Compatibility with the third-party Automated Fare Collection System
Communication	Real-time communication with the internal/external system and other modules
Localization and	Localization options and

Language Support	support for multiple languages
External Antennas for GPS	For strong signal strength external antennas may be installed
Maintenance and Support	OTA, USB Upgrade, Remote management (Refer to 9.18)
Additional Software feature	FTP, remote and local SSH, root access
Compliance	Compliance with relevant industry standards and security regulations
Documentation	Comprehensive documentation, user manuals, and training materials in English Language

4) The Driver Console shall comprise of following features:

   a) The Driver's console must be able to display dispatch plan/schedule, interval information to the bus driver including location, current speed, time headway, distance from the previous and next bus, alert messages and play voice recordings accordingly to timely inform passengers of the next approaching bus.

   b) Drive console unit shall be used to provide vehicle tracking accurately and reliably utilizing Global Positioning System (GPS).

   c) Must have fully functional and advanced GPS system that can gather location wise data and transmit to central servers and related software modules.

   d) Handling and storing MP3-files for announcements, as well as manual

		override for Passenger Information System. e) Control destination and line number signs. f) Control interior information and display & announcement (In English, as well as in Urdu). g) Keep track of the vehicle's Real-time position via GPS and distance counting etc. h) Map applications, navigation and driver guidance. i) Driver console may receive other information relating to Realtime traffic information (accidents, breakdowns and traffic conditions etc.) j) Must have capability to change the route manually if it is incorrect and once confirmed, bus stages will be automatically updated based on GPS position. k) Communication and interface with other onboard units, e.g. passenger information system and fare validators etc. l) GPS time synchronization m) Clock and Date Function n) Link to the internal/external system(s) remote & local server in real-time (all relevant functional SDK's and API's in

		English language is compulsory with Local/International support) o) Business rules customization compliance p) Collection of all records required for the accounting and reporting purposes. 5) All supplied AFC items (including hardware, software, networking, fare media etc.) should be integrable/compatible with third party Mobile application both Android & IOS. 6) All relevant functional SDK's & API's, along with their documentation (complete in all aspects) in English must be provided for Android but not limited to DOT.NET/Android with Local/International support. 7) Provided hardware should have the capability to work in decentralized/centralized mode. 8) The Driver Console should be capable of display messages and play voice recordings accordingly, to timely inform passengers of the next approaching station as well as to make any other critical announcements. The Driver Console should also be capable storing these other critical announcements of at least one (01) hour duration and playing some prescribed voice recordings through driver OBU interface. 9) The Driver Console must be capable of collecting, transmitting and reporting in a prescribed Format following data from Controller Area Network (CAN) Bus module. I. Acceleration and Deceleration

		II. Breaking (All kind of brakes) III. Gear Shifting indications IV. Battery Capacity Information V. Motor RPM VI. Bus Speed VII. Doors Control (Open/Close) Information VIII. Bus Saloon Temperature IX. Motor Temperature X. Battery On/Off Status XI. Auto rear view on reversing the bus The DBC file or equivalent documentation for precise signal decoding Note: Equipment will be covered under 01 (one) year standard manufacturer's warranty. QTY: 1 in each bus
9.19	**UHF /VHF /WIFI MESH SYSTEM**	Due to concerns over the reliability of mobile telephone networks, the vehicles will also be fitted with a communications system along with master controller based on UHF/VHF/Wifi Mesh radio bandwidth technology. Note: Equipment will be covered under 02 (two) years standard manufacturer's warranty. QTY: 1 in each bus
9.20	**MDM MOBILE DEVICE MANAGEMENT/ TERMINAL MANAGEMENT SYSTEM**	A remote device management system required for configuration and installations, deployed locally. All devices must be pre-configured in the system in groups.
9.21	**CHARGING MANAGEMENT SYSTEM CAMERA**	API for remote monitoring and data analytics Local Data Storage: 128GB onboard memory for offline data logging Scheduled Charging Configurable through remote management system Remote Firmware Updates: OTA support for software enhancements User Interaction: RFID, Mobile App, Web Portal, Live updates on charging status, duration, energy

		consumed Instant notifications for malfunctions CAN bus interface for battery management system (BMS) integration
9.22	**CERTIFICATIONS AND APPROVALS**	Provision of all relevant documents / specifications or any other necessary requirement for certification and approvals from local authorities such as PTA etc. will be the responsibility of supplier. The approval from the relevant authorities will be obtained by the Procuring Agency.
9.23	**PROVISION OF TESTING HARDWARE**	Two (02) sets as per above specifications complete hardware set with all relevant functional SDKs, APIs and SDK documentation complete in all aspects i.e. all cables and accessories, simulators, are required within 30 days after the issuance of Work Order.
9.24	**DOCUMENTATIONS AND SDKS**	All relevant functional SDK's & API's, along with their documentation (complete in all aspects) in English Language must be provided but not limited to DOT.NET/Android with Local/International support.
9.25	**INSTALLATION**	All cables and peripherals must be properly installed within designated compartments and concealed from view.
9.26	**REDUNDANT INTERNET PROVIDER**	SIM Based industrial gated network router with Wifi and LAN interfaces must be provided as a redundant internet provider to all devices. It must be interfaceable with MDVR over LAN interface and automatically manage availability of internet. GUI and remote management must be provided.
9.27	**WARRANTY**	Two (02) warranty will be provided by the supplier required by the document. Further, the supplier must provide 5% hardware as a backup in the ITS inventory of the procuring agency during the warranty period. The supplier must maintain the threshold of 5% parts or minimum threshold as mentioned in the spare part ITS hardware inventory and should replace faulty/damaged parts within the time period prescribed in the Contract. If the supplier will fail to replace the

		faulty/damaged part within the time period prescribed in the Contract then the penalty will be imposed to the supplier as per terms and conditions agreed in the Contract.

SECTION 10: BUS PROTOTYPE TESTING		
10.1	**OVERVIEW OF BUS PROTOTYPE TEST**	As explained in the Schedule of Delivery, a Prototype Bus will be produced after the approval of detailed design. Certain tests will be conducted with this Prototype bus in order to ascertain the performance of bus. A minimum list of these tests are given in the section below, however the manufacturer can proposed any additional tests deemed necessary. Also the Procuring Agency can ask for a few additional tests while finalizing these Prototype Testing.
10.2	**BUS BASIC COMPLIANCE TESTS**	The objective of this test is to go through the initial screening process to make sure that the bus complies with all the basic requirements.
10.3	**BUS PHYSICAL INSPECTION**	The objective of this test is to carry out of physical inspection of the bus both from external and internal sides to assess the overall condition of the bus.
10.4	**SAFETY TEST – DOUBLE LANE CHANGE (OBSTACLE AVOIDANCE TEST)**	The objective of this test is to determine handling and stability of the bus by measuring speed through a double lane change test.
10.5	**PERFORMANCE TESTS**	
10.5.1	**ACCELERATION, GRADE ABILITY AND TOP SPEED TEST**	The objective of this test is to determine the acceleration, gradeability, and top speed capabilities of the bus. Best is to have instrumentation set to read acceleration directly and to trace a speed curve. Gradeability can then be calculated.
10.5.2	**BUS BRAKING PERFORMANCE TEST**	The objective of this test is to provide braking

		performance data.
10.6	**STRUCTURAL INTEGRITY TESTS**	
10.6.1	**STRUCTURAL SHAKEDOWN TEST**	The objective of this test is to determine certain static characteristics (e.g., bus floor deflection, permanent structural deformation, etc.) under static loading conditions.
10.6.2	**STRUCTURAL DISTORTION**	The objective of this test is to observe the operation of the bus subsystems when the bus is placed in a longitudinal twist simulating operation over a curb or through a pothole.
10.6.3	**STATIC TOWING TEST**	The objective of this test is to determine the characteristics of the bus towing mechanisms under static loading conditions.
10.6.4	**DYNAMIC TOWING TEST**	The objective of this test is to verify the integrity of the towing fixtures and determine the feasibility of towing the bus under manufacturer specified procedures.
10.6.5	**JACKING TEST**	The objective of this test is to inspect for damage due to the deflated tire and determine the feasibility of jacking the bus with a portable hydraulic jack to a height sufficient to replace a deflated tire.
10.6.7	**HOISTING TEST**	The objective of this test is to determine possible damage or deformation caused by the jack/stands.
10.6.8	**ROLLOVER TEST**	The objective of this test is to measure crashworthiness - the ability of the vehicle to protect its passengers in the event of a crash. Simulation based results for this test will be accepted.
10.7	**NOISE TESTS**	
10.7.1	**INTERIOR NOISE AND VIBRATION TEST**	The objective of these tests is to measure and record interior noise levels and check for audible

		vibration under various operating conditions.
10.7.2	**EXTERIOR NOISE TEST**	The objective of this test is to measure and record exterior noise levels when a bus is operated under various conditions.

1. LIST OF SPARE PARTS TO BE PROVIDED BY THE MANUFACTURER FOR 9 METER BUSES

The manufacturer shall provide all replacement parts and supplies for all maintenance issues resulting from normal wear and tear as well as items requiring scheduled replacements throughout the term of the Agreement.

There shall be no vehicles unavailable for services due to the lack of spare parts at the depot site.

The table below is the minimum list of spare parts and supplies to be provided at all times during the Term of the Agreement. Spare parts and supplies listed in the table below are to be provided.

Table 1. Spare parts package to be provided

PART DESCRIPTION	QUANTITY TO BE PROVIDED AT THE END OF THE TERM
Full Battery Pack For Electric Propulsion System (Complete Set For Bus)	2
Complete brake assembly (excl. Axles)	25
Disc Brake Pads	30
Touch-Up Paint For All Colours Used On The Vehicle (Quantity In Litters)	30
Full Windscreen Assembly	8
Side Window Glass Unit (Complete Set For Bus)	8
Head Lamp Assembly, Including Globes (2 Lamps Per Set)	12
Rear Brake Light / Indicator Light Assembly, Including Globes (2 Assemblies Per Set, Left And Right)	12

Exterior Wing Mirrors (Arms And Mirrors, Left And Right Mirrors Per Set)	20
Wiper Blades (2 Per Set)	60
Interior Light Globes	30
Full Seat Assembly (Complete Set For Bus)	12
Back And Bottom Seat Cushion Set (Complete Set For Bus)	12
Floor Cover Material (Quantity In Square Meters)	12
Door Assembly (Including Doors, Valves, Switches)	5
Interior Partition Wall / Advertising Unit	5
Wheel Unit	5
Electric Motors (Complete Set For Bus)	5
Air Conditioning Unit (Complete Set For Bus Incl. Pipes, Compressor, Condenser Assembly, etc.)	5
Vehicle Logic Unit (VLU)	6
Fare Validator	6
Driver Console	6
Infotainment Back screen	3
Driver Data Terminal (DDT)	6
Digital Video Recorder (DVR)	6
Door Opening And Closing Synchronization Unit	6
CCTV Cameras (6x AI , 6x Passenger count, 6x Dash cam, 6x Surveillance, 6x rear, 6x front)	15
Interior Variable Messaging Display Unit	6

Infotainment Display Unit	6
Spare Wheel	1 per Bus

2. LIST OF TOOLS TO BE PROVIDED

One set of tools to be provided

Table 2. Minimum list of tools to be provided

DESCRIPTION	QUANTITY TO BE PROVIDED
Air chisel	1
Air drill	2
Air grinder	2
Air gauge kit – brake system	1
Air riveter	2
Alternator and starter test bench	1
Battery charger	1
Battery load tester	1
Bench grinder	2
Bench vice	2
Bottle jacks	2
CO2-welder	1
Compression tester	1
Creepers	2
Drill press	1

Electric drill	1
Electric grinder	1
Electric shear	1
Electric steel cutter	1
Extension leads	2
Floor material welder	1
Gas welder	1
Headlight tester/adjuster	1
Heavy duty socket set (multiple sizes, as required)	1
Hydrometer	2
Impact screw driver	1
Impact wrench, large size	1
Impact wrench, medium size	1
Impact wrench, small size	2
King pin press	1
Lead lights	6
Magnetic base and gauge	1
Metal sheet bender	1
Micrometer set	1
Multimeter	2

Paint heat kit	1
Polisher	1
Portable arc welder	1
Portable gas welder	1
Power jack (60 ton)	2
Puller set	1
Radiator pressure tester (diesel-fuel option only)	2
Refractometer – antifreeze tester	2
Sander	1
Spray gun	1
Torque wrench 0-60 Nm	1
Torque wrench 201-450 Nm	1
Torque wrench 451-800 Nm	2
Torque wrench 61-200 Nm	1
Transmission jack (1000 kg)	1
Tire hammer	1
Tire stripping and fitting kit (Tire Changing Machine)	1
Vernier set	1
Wheel stopper blocks	6
Wheel Alignment Machine	1
Diagnostic Equipment Set (As mentioned in Detailed Specifications above)	1

SECTION – IV: BID DATA SHEET

4.1. BID DATA SHEET (BDS)

The following specific data for the services to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB) Section-II. Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

A. INTRODUCTION		
BDS CLAUSE NUMBER	**ITB NUMBER**	**AMENDMENTS OF, AND SUPPLEMENTS TO, CLAUSES IN THE INSTRUCTION TO BIDDERS**
1.	**2.1.1**	Name of Procuring Agency: PUNJAB MASSTRANSIT AUTHORITY. The subject of procurement is: Induction Of Eco-Friendly Buses In Rawalpindi (Gs# 3470)
2.	**2.1.2**	Financial year for the operations of the Procuring Agency*: 2025-2026 – to 2037-2038* Name of financing institution: *Government of the Punjab* Name of the Contract: *Induction Of Eco-Friendly Buses In Rawalpindi (Gs # 3470)*
3.	**2.1.3**	Ineligible country(s) is: *As per notification of the Government of Pakistan*
4.	**2.3.6(iii)**	Demonstration of authorization by manufacturer: *Required as per **FORM 8.3 – MANUFACTURER'S AUTHORIZATION FORM.***
B. BIDDING DOCUMENTS		
5.	**2.2.2**	The email address for clarification of Bidding Documents is: (*rizwan.aziz@pma.punjab.gov.pk)*
6.	**2.2.2**	Pre-bid meeting will be held on 10th April 2025, at 1100 Hours(PST) Venue: PTC Office,1st Floor, EOBI BUILDING, #66, SHAHRAH NAZRIA PAKISTAN, NEAR ,AYYUB CHOWK, JOHAR TOWN, LAHORE-PAKISTAN.
C. BID PRICE, CURRENCY, LANGUAGE AND COUNTRY OF ORIGIN		
7.	**2.3.1**	*English Language*
8.	**2.3.4**	*The price quoted shall be USD for Supply Price for Goods and in PKR for Supply Price for Services.*
9.	**2.3.4 & 2.3.9**	*Fixed Price, No minimum wage rate shall be revised during the continuation of the contract period.*

10.	**2.1.4(i)**	Country of origin: *Manufacturer's Country*
D.	**PREPARATION AND SUBMISSION OF BIDS**	
11.	**2.1.3**	Not Used.
12.	**2.3.6**	Spare parts required from the delivery of last Bus to completion of first year of operation.
13.	**2.4.1**	Bids shall be submitted online on eProcurement portal, https://eprocure.gov.pk
14.	**2.4.2**	The deadline for Bid submission is: a) Day : Monday b) Date: 28th April,2025 Time: 1100 Hours (PST)
15.	**2.5.1**	Time, date/Month/Year, and place for Bid opening. a) Day : Monday b) Date: 28th April,2025 Time: 1130 Hours (PST)
16.	**2.6.2**	Amount of Performance Guarantee: *10% of Supply Price.*
17.	**2.3.8**	The estimated contract price is: *PKR, 4,649 Million*
18.	**2.3.7**	Amount of Bid Security is: *USD 175,000 in favor of "Mass transit Authority Non Fare Revenue (NFR) Fund Account.*
19.	**2.3.8**	Bid validity period after opening of the Bid is: 180-Days.
E.	**OPENING AND EVALUATION OF BIDS**	
20.	**2.5.1**	The Bid opening shall take place at: 5TH FLOOR, ARFA SOFTWARE TECHNOLOGY PARK (ASTP), 346-B, MAIN FEROZEPUR ROAD, LAHORE, PAKISTAN. TEL:+92 (42) 99028000 Fax: +92 (42) 99232541 EMAIL: rizwan.aziz@pma.punjab.gov.pk a) Day : Monday

		b) Date: 28th April,2025 Time: 1130 Hours (PST) Financial proposals of the technically responsive Bidders shall only be opened on the date which will be intimated to technically qualified Bidders through email, in the presence of their representatives who choose to attend.
21.	**2.3.4**	The currency that shall be used for Bid evaluation and comparison purposes to convert all Bid prices expressed in various currencies is: *United States Dollars* *If the currency used is not USD, the evaluation will be conducted after converting the currency to USD using exchange rates sourced from xe.com.*
F.	**BID EVALUATION CRITERIA**	
22.	**2.5.8**	Criteria to Bid evaluation as provided below. The Bidder that offers the "*Lowest Evaluated Price (accumulated)*" shall be declared the Successful Bidder.

A detailed evaluation of the Prequalified Applicants shall be undertaken using the following criteria based on the following scoring system:

CATEGORY	POINTS
Financial score	40
Technical score	60
TOTAL	**100**

To qualify, each Prequalified Applicant must score seventy (70) or more points and must score at least fifty percent (50%) in each category listed above.

CRITERIA FOR DETAILED EVALUATION:

1. FINANCIAL SCORE (40 POINTS)

Financial points shall be awarded under this category based on the following criteria:

SR. NO.	DESCRIPTION	MAXIMUM POINTS	CRITERIA FOR POINTS OBTAINED
1.	**Net Worth** *(As Per The Most Recent Audited Financial Statements)*	20	▪ 20 points, if the net worth is USD 400 million or above; ▪ 15 points, if the net worth is USD 300 million or above;

	Calendar Year (2021, 2022 & 2023)		▪ 10 points, if the net worth is USD 200 million or above.
2.	**Average Annual Turnover** (*Average Annual Turnover As Per The Last Three (03) Years Audited Financial Statements, i.e., 2021, 2022 & 2023)*	20	▪ 20 points, if the average annual turnover is USD 1,000 million or above; ▪ 15 points, if the average annual turnover is USD 800 million or above; ▪ 10 points, if the average annual turnover is USD 600 million or above.
TOTAL FINANCIAL SCORE			**40 POINTS**

Prequalified Applicants falling in between the evaluation bracket for Financial Evaluation will be assigned marks on interpolation basis.

2. TECHNICAL SCORE (60 POINTS)

Technical points shall be awarded under this category based on the following criteria:

SR. NO.	DESCRIPTION	MAXIMUM POINTS	CRITERIA FOR POINTS OBTAINED
1.	**OVERALL PRODUCTION CAPACITY**	25	▪ 25 Points, if: ▪ been in production of buses (CBU) of seven and half meters (7.5 m) and above for at least five (05) years; and ▪ has produced an average between 8,500 or more units of buses (CBU) of seven and half meters (7.5 m) and above of all types and specifications over the last three (03) years (i.e., 2021, 2022 & 2023); ▪ 20 Points, if: ▪ been in production of buses (CBU) of seven and half meters (7.5 m) and above for at least five (05) years; and ▪ has produced an average between 8,000 to 8,500 units of buses (CBU) of seven and half meters (7.5 m) and above of all types and specifications over the last three

			(03) years (i.e., 2021, 2022 & 2023). ▪ 15 Points, if: ▪ been in production of buses (CBU) of seven and half meters (7.5 m) and above for at least five (05) years; and ▪ has produced an average between 7,500 to 8,000 units of buses (CBU) of seven and half meters (7.5 m) and above of all types and specifications over the last three (03) years (i.e., 2021, 2022 & 2023).
2.	**SPECIFIC PRODUCTION CAPACITY**	25	▪ 25 Points, if: ▪ sold a minimum of three hundred (400) units (CBU) of pure electric city buses from seven and a half meters (7.5 m) to thirteen meters (13 m) over the last four (04) years (i.e. 2020, 2021, 2022 & 2023). ▪ 20 Points, if: ▪ sold a minimum of two hundred and fifty (350) units (CBU) of pure electric city buses from seven and a half meters (7.5 m) to thirteen meters (13 m) over the last four (04) years (i.e. 2020, 2021, 2022 & 2023). ▪ 15 Points, if: ▪ sold a minimum of three hundred (300) units (CBU) of pure electric city buses from seven and a half meters (7.5 m) to thirteen meters (13 m) over the last four (04) years (i.e. 2020, 2021, 2022 & 2023).
3.	**QUALITY ASSURANCE CERTIFICATIONS** *(Updated Quality Management Certification Or Equivalent)*	5	▪ 3 Points, for: ▪ Updated International Standardization Organization (ISO) Certification – ISO 9001 for Quality Management ▪ 1 Point, for: ▪ Updated International Standardization Organization (ISO)

			Certification – ISO 14001 for Environment Management ▪ 1 Point, for: ▪ Updated Quality Management Certification Or Equivalent
4.	**SUCCESSFUL PROJECTS COMPLETION CERTIFICATES** *(Successfully completed at least three (03) similar projects for supply of seven and half meters (7.5m) to thirteen-meter (13m) pure electric buses (CBU) with an order of minimum One Hundred (100) buses (CBU) per order during the last five (05) years (i.e. 2019, 2020, 2021, 2022 & 2023); evidenced by either a completion certificate or a partial delivery certificate of not less than One Hundred (100) pure electric buses (CBU).*	5	▪ 5 points, for 5 or above completed / delivered projects with their completion certificates; ▪ 4 points, for 4 completed / delivered projects with their completion certificates; ▪ 3 points, for 3 completed / delivered projects with their completion certificates;
TOTAL TECHNICAL SCORE			**60 POINTS**
TOTAL SCORE (FINANCIAL SCORE + TECHNICAL SCORE)			**100 POINTS (40 POINTS + 60 POINTS)**

G.	**AWARD OF CONTRACT**	
23.	**2.6.5**	Percentage for quantity increase or decrease is: The Procuring Agency reserves the right to increase or decrease the quantity of the services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions, on the analogy of rule-59 (c)(iv) of Punjab Procurement Rules, 2014.
24.	**2.6.2**	The Performance Guarantee shall be: *10% of the Supply Price*

25.	**2.6.2**	The Performance Guarantee shall be in the form of: *Bank Guarantee and may be released after the Expiration of Service/contract period.*

SECTION – V: NOT USED

SECTION – VI: NOT USED

SECTION – VII: SCHEDULE OF REQUIREMENTS

The delivery schedule expressed as weeks/months stipulates a delivery date which is the date at which delivery is required.

NUMBER	DESCRIPTION	QUANTITY	DELIVERY SCHEDULE (SHIPMENT) IN WEEKS/MONTHS FROM _____[1]

In order to determine the correct date of delivery hereafter specified, the Procuring Agency has taken into account the additional time that will be needed for international or national transit to the Project Site or to another common place.

NUMBER	DESCRIPTION	QUANTITY	DELIVERY SCHEDULE (SHIPMENT) IN WEEKS
[•]	[•]	[•]	[•]

[1] The Procuring Agency must specify here the date from which the delivery schedule will start. That date should be either the date of contract award, or the date of contract signature, or the date of opening of letter of credit, or the date of confirmation of the Letter of Credit, as appropriate. The Bid Form should include only a cross-reference to this Schedule.

SECTION – VIII: SAMPLE FORMS

8.1. BID FORM

To: **DATED:**
[•][1] [•][2]
THE PUNJAB MASSTRANSIT AUTHORITY.

[*insert address*]

Gentlemen and/or Ladies:

Having examined the Bidding documents including Addenda Nos. *[insert numbers],* the receipt of which is hereby duly acknowledged, we, the undersigned, in conformity with the said Bidding documents for the sum of *[total Bid amount in words and figures]* or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, specified in the Schedule of Requirements.

If our Bid is accepted, we will obtain the guarantee of a bank in a sum equivalent to _____ percent of the Contract Price for the due performance of the Contract, in the form prescribed by the Procuring Agency.

We agree to a Bid by this Bid for a period of *[number]* days from the date fixed to Bid opening under Clause 2.3.7 of the Instructions to Bidders, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed *(if required)*, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

The Composition of our Bid consists on separate Technical and Financial Bids, detail of which is as follows:

TECHNICAL BID INCLUDES THE FOLLOWING:-

(a) Complete Bidding document (without filling) signed and stamped by the Bidder

(b) All the forms relevant to the Technical Bid, to be reproduced on the letter head of the Bidder as indicated on each individual form.

(c) Copy of Bid Security (financial instruments i.e., Bank call-deposit (CDR), Demand Draft (DD), or Pay Order (PO)) valid for twenty (28) Days, beyond the validity of Bid.

(d) Any other document required by the procuring agency not inconsistent with Punjab Procurement Rules, 2014.

[1] To be inserted by the Applicant upon submission of Prequalification Application.
[2] To be inserted by the Applicant upon submission of Prequalification Application.

FINANCIAL BID INCLUDES THE FOLLOWING:-

(a) Original Bid form (as per **FORM 8.1 – BID FORM** of Bidding documents) on letter head of the firm, duly signed and stamped.

(b) Price schedule / Financial form (as per **FORM 8.10 – FINANCIAL BID FORM**) to be reproduced on the letter head of the Bidder duly signed and stamped.

(c) *Any other document required by the procuring agency not inconsistent with Punjab Procurement Rules, 2014.*

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:

Name and address of service provider	Amount and Currency
_____	_____
_____	_____
_____	_____

(if none, state "none")

We understand that you are not bound to accept the lowest or any Bid you may receive.

Dated this _____ day of _____ 20_____.

_____ _____

[signature] *[in the capacity of]*

Duly authorized to sign Bid for and on behalf of _____

8.2. BIDDER'S JV MEMBERS FORM – NOT APPLICABLE

*Note: This **FORM 8.2 – BIDDER'S JV MEMBERS FORM** is not required for submission of the Bid. Submission of this form by any Bidder shall be disregarded and have no bearing on the evaluation, validity, or compliance of the Bid.*

{To be reproduced and signed & stamped by the lead partner and all JV members on their letter Pad, to be attached with Technical Bid in addition to the JV agreement}

{The Bidder shall fill in this Form in accordance with the instructions indicated below. The following table shall be filled in for the Bidder and for each member of a Joint Venture}.

Date: *[insert date (as day, month and year) of Bid submission*]
RFB No.: *[insert number of RFB process]*
Alternative No.: *[insert identification No if this is a Bid for an alternative]*

Page _____ of_ _____ pages

1. Bidder's Name: *[insert Bidder's legal name]*
2. Bidder's JV Member's name: *[insert JV's Member legal name]*
3. Bidder's JV Member's country of registration: *[insert JV's Member country of registration]*
4. Bidder's JV Member's year of registration: *[insert JV's Member year of registration]*
5. Bidder's JV Member's legal address in country of registration: *[insert JV's Member legal address in country of registration]*
6. Bidder's JV Member's authorized representative information Name: *[insert name of JV's Member authorized representative]* Address: *[insert address of JV's Member authorized representative]* Telephone/Fax numbers: *[insert telephone/fax numbers of JV's Member authorized representative]* Email Address: *[insert email address of JV's Member authorized representative]*
7. Attached are copies of original documents of *[check the box(es) of the attached original documents]* ☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.4. ☐ In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Purchaser, in accordance with ITB 4.6. 8. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

8.3. MANUFACTURER'S AUTHORIZATION FORM

[To be signed and stamped by the Bidder and to be attached with Technical Bid]

[See Clause 2.3.6 (iii) of the Instructions to Bidders.]

To: **THE PUNJAB MASSTRANSIT AUTHORITY**

WHEREAS *[name of the Manufacturer],* who are established and reputable manufacturers of *[name and/or description of the goods]* having factories at *[address of factory]* do hereby authorize *[name and address of Agent]* to submit a Bid, and subsequently negotiate and sign the Contract with you against for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per the Contract for the goods offered for supply by the above firm against this Invitation to Bids.

_____

[Signature for and on behalf of Manufacturer]

Note: This letter of authority should be on the letterhead of the Manufacturer and should be signed by a person competent and having the power of attorney to bind the Manufacturer. It should be included by the Bidder in its Bid.

8.4. BIDDER PROFILE FORM

[To be signed & stamped by the Bidder and reproduced on the letter head. To be attached with Technical Bid]

Sr.#	Particulars
1.	Name of the company:
2.	Registered Office:
Address:	
Office Telephone Number:	
Fax Number:	
3.	Contact Person:
Name:	
Personal Telephone Number:	
Email Address:	
4.	Local office if any:
Address:	
Office Telephone Number:	
Fax Number:	
5.	Registration Details:

a) Audited Financial Statement Attachment (Last 3 years)

Yes	No

b) Details of Experience (Last Five Years)

(i)	**Similar Project (Agency/Department)**	**Item Name**
(ii)	**Value of total Projects/Tenders/POs**	**Amount**

c) Staff Detail and last month Payroll

Yes	No

8.5. GENERAL INFORMATION FORM

[To be signed & stamped by the Bidder and reproduced on the letter head. To be attached with Technical Bid]

	Particulars			
Company Name				
Abbreviated Name				
National Tax No.			**Sales Tax Registration No**	
PRA Tax No.				
No. of Employees			**Company's Date of**	
			Formation	

*Please attach copies of NTN, GST Registration & Professional Tax Certificate

Registered Office Address		State/Province	
City/Town		Postal Code	
Phone		Fax	
Email Address		Website Address	

8.6. AFFIDAVIT – NOT APPLICABLE

*Note: This **FORM 8.6 – AFFIDAVIT** is not required for submission of the Bid as the same has been submitted by the Bidders during the prequalification stage. Submission of this form by any Bidder shall be disregarded and have no bearing on the evaluation, validity, or compliance of the Bid.*

[To be printed on PKR 100 Stamp Paper, duly attested by oath commissioner. To be attached with Technical Bid]

Name: _____
(Applicant)
I, the undersigned, do hereby certify that all the statements made in the Bidding document and in the supporting documents are true, correct and valid to the best of my knowledge and belief and may be verified by employer if the Employer, at any time, deems it necessary.
The undersigned hereby authorize and request the bank, person, company or corporation to furnish any additional information requested by the *[name of Procuring Agency]* of the Punjab deemed necessary to verify this statement regarding my (our) competence and general reputation.
The undersigned understands and agrees that further qualifying information may be requested and agrees to furnish any such information at the request of the *[name of Procuring Agency]*.
The undersigned further affirms on behalf of the firm that:

(i) The firm is not currently blacklisted by the Procuring Agency.
(ii) The documents/photocopies provided with Bid are authentic. In case, any fake/bogus document was found at any stage, the firm shall be blacklisted as per Law/ Rules.
(iii) Affidavit for correctness of information.
(iv) **********omitted******

[Name of the Contractor/ Bidder/ Supplier] undertakes to treat all information provided as confidential.

Signed by an authorized Officer of the company

Title of Officer: _____

Name of Company: _____

Date: _____

8.7. PERFORMANCE GUARANTEE FORM

[To be signed & stamped by the Bidder and reproduced on the letter head. To be attached with Technical Bid]

……., 2025

To:
[●]
[*Insert Address*]

PERFORMANCE GUARANTEE NO. ..... ("**Security"**)

We, [●][3], being the Security issuing bank (the "**Issuing Bank**") understand that the following parties have entered into an agreement entitled "THE CONTRACT" dated [•], 2025 (the "**Contract**"):

(a) **PUNJAB MASSTRANSIT AUTHORITY,** a statutory body established by the Government of the Punjab duly organized and existing under the laws of Pakistan, with its principal office located at [*insert address*] (the "**Procuring Agency**"); and

(b) [●], a company incorporated under the laws of [●] having its registered office located at [●] (the "**Supplier"**).

Further, we understand that pursuant to the Notification of Award dated [●] (the **"Notification of Award"**) and the Contract, the Supplier is required to provide the Procuring Agency with a performance guarantee equal to [●] [●]/- ([●] [●]) and maintain the same in accordance with the terms of the Contract.

We, the Issuing Bank, hereby undertake irrevocably and unconditionally on demand to pay to the Procuring Agency, without any notice, reference or recourse to the Supplier or to any other entity or without any recourse or reference to the Notification of Award, Contract or any other document, agreement, instrument or deed, any sum or sums (or any part thereof) equivalent in aggregate up to but not exceeding a maximum amount of:

[•] [•]/- ([•][•])
(the "**GUARANTEED AMOUNT"**)

at sight and immediately, from the date of receipt of the Procuring Agency's first written demand (the "**Demand**") at the Issuing Bank's offices located at [•] or through SWIFT instructions transmitted by the Procuring Agency's bank (i.e. [*insert name of Bank*]), on behalf of the Procuring Agency, to the Issuing Bank, such Demand stating:

(a) that the Supplier is in breach of its obligations towards the Procuring Agency:

(i) specifying the breach and, if applicable, requesting the Supplier to cure the breach;

(ii) if applicable, certifying that the Supplier has failed to remedy the breach within the period allowed for remedial action; and

(c) the total amounts demanded.

[3] Insert name of Issuing Bank;

A Demand shall only be honored by us (i) in the case of a written Demand, if it is made by and bears the signature of an authorised officer or other representative of the Procuring Agency; or (ii) in the case of a Demand transmitted through SWIFT, if it is transmitted through authenticated SWIFT instructions by the Procuring Agency's bank (i.e. [*insert name of Bank*]), on behalf of the Procuring Agency.

We, the Issuing Bank, shall unconditionally honor a Demand hereunder made in compliance with this Security at sight and immediately on the date of receipt of your Demand, as stated earlier, and shall transfer the amount specified in the Demand to the bank account, as notified in the Demand, in immediately available and freely transferable funds in the currency of this Security, free and clear of and without any set-off or deduction for or on account of any present or future taxes, levies, imposts, duties, charges, fees, deductions or withholdings of any nature whatsoever and by whomsoever imposed.

This Security shall come into force and shall become automatically effective upon its issuance.

After having come into force, this Security and our obligations hereunder will expire on the earlier of:

(i) [●] (the "**Performance Guarantee Original Expiry Date**") provided that, in the event the Issuing Bank has receipt of the Demand on or immediately prior to the Performance Guarantee Original Expiry Date, the Issuing Bank shall honor that Demand; or

(ii) when the aggregate of all payments made by us under this Security equal the Guaranteed Amount.

Upon expiry, this Security shall be returned to the Supplier without undue delay. Multiple Demands may be made by the Procuring Agency under this Security but our aggregate liability will be restricted up to the Guaranteed Amount.

The Guaranteed Amount shall be revised upon receipt by us of a notice duly signed by the Procuring Agency and the Supplier of the revised guaranteed amount.

We hereby agree that any amendment, renewal, extension, modification, compromise, release or discharge by mutual agreement by the Procuring Agency, the Supplier or any other entity of any document, agreement, instrument or deed shall not in any way impair or affect our liabilities hereunder and maybe undertaken without notice to us and without the necessity for any additional endorsement, consent or guarantee by us.

This Security for its validity period shall not be affected in any manner by any change in our constitution or of the Supplier's constitution or of their successors and assignees and this Security shall be legally valid, enforceable and binding on each of their successors and permitted assignees.

All references to any contract, agreement, deed or other instruments or documents are by way of reference only and shall not affect our obligations to make payment under the terms of this Security.

If one or more of the provisions of this Security are held or found to be invalid, illegal, or unenforceable for any reason whatsoever, in any respect, any such invalidity, illegality, or unenforceability of any provision shall not affect the validity of the remaining provisions of this Security.

We hereby declare and confirm that under our constitution and applicable laws and regulations, we have the necessary power and authority, and all necessary authorizations, approvals and consents thereunder to enter into, execute, deliver and perform the obligations we have undertaken under this Security, which obligations are valid and legally binding on and enforceable against us under the laws of Pakistan and under the laws of the jurisdiction where this Security is issued. For the avoidance of doubt, in the event of any inconsistency between the laws of Pakistan and the laws of the jurisdiction where the Security was issued, we agree that the laws of Pakistan shall prevail. Further, that the signatory(ies) to this Security is/are our duly authorized officer(s) to execute this Security.

This Security and all rights and obligations arising from this Security shall be governed and construed in all respects in accordance with the laws of Pakistan. The courts in Pakistan shall have exclusive jurisdiction in respect of any dispute relating to any matter contained herein.

The issuance of this Security is permitted according to the laws of Pakistan and the laws of the jurisdiction where this Security is issued.

This Security is subject to the Uniform Rules for Demand Guarantee, ICC Publication No.758. To the extent that there is any inconsistency between the terms of this Security and the Uniform Rules for Demand Guarantees, ICC Publication No. 758, the terms of this Security shall prevail.

……
Name: …….
Designation: ……...

8.8. TECHNICAL BID FORM

[To be signed & stamped by the Bidder and reproduced on the letter head. To be attached with Technical Bid]

SR. NO.	ITEM NAME	BRAND NAME WITH COUNTRY OF MANUFACTURER	MAKE & MODEL	QUANTITY	COUNTRY OF ORIGIN	SPECIFICATIONS DIMENSIONS

STAMP & SIGNATURE OF BIDDER _____

8.9. CONTRACT FORM

This contract (hereinafter referred to as the "**Contract**") is made on the _____ day of _____, 2025

By & Between

M/s **PUNJAB MASSTRANSIT AUTHORITY**, a company fully owned and governed by Government of the Punjab, having its office situated at [*insert address*] (hereinafter referred to as the "**Procuring Agency**" which expression shall include its successors, legal representatives and permitted assigns), represented through Mr. Imran Ali, Chief Executive Officer, of the one part,

AND

M/s [•] having its head office situated at [•] (hereinafter referred to as the "**Manufacturer**" which expression shall include its successors, legal representatives and assigns), represented through Mr. [•], [•], of the other part.

(The Procuring Agency and the Manufacturer are, hereinafter, individually referred to as the "**Party**" and collectively as the "**Parties**".)

WHEREAS, the Procuring Agency invited bids for procurement of _____, which is described more specifically in the Contract;

AND WHEREAS, the Manufacturer came out to be the successful bidder in the aforementioned bidding process;

AND WHEREAS, the Procuring Agency has accepted the bid of the Manufacturer for procurement of the Goods.

NOW THEREFORE, this Contract witnesseth as follows:

1. In this Contract words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of the Contract provided hereunder.

2. The following documents after incorporating addenda and response to queries, if any, shall be deemed to form and be read and construed as integral part of this Contract, viz:

    a. The Contract;

    b. Letter of Award;

    c. Schedule of Requirements; and

    d. Conditions of the Contract.

3. In consideration of the payments to be made by the Procuring Agency to the Manufacturer as hereinafter mentioned, the Manufacturer hereby covenants with the Procuring Agency to provide the Goods, and remedy defects therein, in conformity with all respects in accordance with the provisions of the Contract.

4. The Procuring Agency hereby covenants to pay the Manufacturer, in consideration of provisions of the Goods as per provisions of the Contract, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed under the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be executed on the day, month and year first written above in accordance with laws of Islamic Republic of Pakistan.

For and on behalf of the Procuring Agency
M/S PUNJAB MASSTRANSIT AUTHORITY

Witness

Signature _____ Signature _____

Name _____ Name _____

Title _____ Title _____

CNIC _____ (Seal)

Address _____

For and on behalf of the Manufacturer
[•]

Witness

Signature _____ Signature _____

Name _____ Name _____

Title _____ Title _____

CNIC _____ (Seal)

Address _____

8.10. FINANCIAL BID FORM

To: **DATED:**
[•][4] [•][5]
THE PUNJAB MASSTRANSIT AUTHORITY.

[*insert address*]

[To be signed & stamped by the Bidder and reproduced on the letter head. To be attached with Financial Bid]

PRICE OF SCHEDULE FOR GOODS PERTAINING TO 9 METER PURE ELECTRIC BUSES

ITEM	DESCRIPTION	COUNTRY OF ORIGIN	QUANTITY AND UNIT OF MEASUREMENT (NO.)	UNIT PRICE IN USD (INCLUDING TRANSPORTATION TO DELIVERY POINT, RAWALPINDI, PAKISTAN)	TOTAL PRICE PER ITEM INCLUDING TAXES
1	2	3	4	5	6 = 4 x 5
I	Supply of 9-meter pure electric buses		63 buses		
ii	Supply of Slow Chargers		17 Nos.		
Iii	Supply of Fast Chargers		5 Nos.		
iv	Full spare parts package for Buses from the delivery of the vehicle through the duration of contract		Lump sum		
v	Supply of tools and diagnostic equipment for Buses		1 set		
TOTAL (A)					**XXX**

PRICE OF SCHEDULE FOR RELATED SERVICES PERTAINING TO 9 METER PURE ELECTRIC BUSES

ITEM	DESCRIPTION	COUNTRY OF ORIGIN	QUANTITY AND UNIT OF MEASUREMENT	UNIT PRICE (PKR)	TOTAL PRICE INCLUDING TAXES (PKR)
1	2	3	4	5	6 = 4 x 5
i	Maintenance supervision of Buses		12 months		
ii	Maintenance training program		Lump sum		
Iii	Driver training program		Lump sum		
TOTAL (B)					**XXX**

Note: If the currency used is not USD, the evaluation will be conducted after converting the currency to USD using exchange rates sourced from xe.com

[4] To be inserted by the Applicant upon submission of Prequalification Application.
[5] To be inserted by the Applicant upon submission of Prequalification Application.

8.11. FORM OF BID SECURITY

[To be signed & stamped by the Bidder and reproduced on the letter head. To be attached with Technical Bid]

Whereas *[name of the Bidder]* (hereinafter called "the Bidder") has submitted its Bid dated *[date of submission of Bid]* for the supply of *[name and/or description of the goods]* (hereinafter called "the Bid").

KNOW ALL PEOPLE by these presents that WE *[name of bank]* of *[name of country]*, having our registered office at *[address of bank]* (hereinafter called "the Bank"), are bound unto the **PUNJAB MASSTRANSIT AUTHORITY** (hereinafter called "the Procuring Agency") in the sum of for which payment well and truly to be made to the said Procuring Agency, 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 this obligation are:

1. If the Bidder withdraws its Bid during the period of Bid validity specified by the Bidder on the Bid Form; or

2. If the Bidder, having been notified of the acceptance of its Bid by the Procuring Agency during the period of Bid validity:

   (a) fails or refuses to execute the Contract Form, if required; or

   (b) fails or refuses to furnish the Performance Guarantee, in accordance with the Instructions to Bidders;

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

This guarantee will remain in force up to and including thirty (30) days after the period of Bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

_____

[Signature of the bank]

8.11. FORM OF SUBMISSION INFORMATION SUMMARY

PART I

[To be signed & stamped by the Bidder and reproduced on the letter head. To be attached with Technical Bid]

	REQUISITE HEADS	NUMBERS
1.	**OVERALL PRODUCTION CAPACITY** MAXIMUM MARKS = 25 *Section 2 (Technical Score) – Criteria For Detailed Evaluation – Section – IV (Bid Data Sheet)*	
2.	**SPECIFIC PRODUCTION CAPACITY** MAXIMUM MARKS = 25 *Section 2 (Technical Score) – Criteria For Detailed Evaluation – Section – IV (Bid Data Sheet)*	

PART II

[To be signed & stamped by the Bidder and reproduced on the letter head. To be attached with Financial Bid]

	REQUISITE HEADS	NUMBERS
1.	**NET WORTH** *(As Per The Most Recent Audited Financial Statements) Calendar Year (2021, 2022 & 2023)* MAXIMUM MARKS = 20 *Section 1 (Financial Score) – Criteria For Detailed Evaluation – Section – IV (Bid Data Sheet)*	
2.	**AVERAGE ANNUAL TURNOVER** (*Average Annual Turnover As Per The Last Three (03) Years Audited Financial Statements, i.e., 2021, 2022 & 2023)* MAXIMUM MARKS = 20 *Section 1 (Financial Score) – Criteria For Detailed Evaluation – Section – IV (Bid Data Sheet)*	

SECTION – IX: CHECK LIST

[To be signed and stamped and presented on Bidder's letter head pad]

The provision of this checklist is essential prerequisite along with submission of tenders (with Technical Proposal).

SR. #	DETAIL	APPLICABILITY	RESPONSIVE	NON-RESPONSIVE
1	Original receipt for purchase of tender along with Standard Bidding Documents.	Yes		
2	All required samples (if demanded) have been submitted in the Punjab Masstransit Authority sample store.	Yes		
3	Bid Form (as per **FORM 8.1 – BID FORM** of Bidding documents) on letter head of the firm, duly signed and stamped.	Yes		
4	Bidder's JV Members Form (as per **FORM 8.2 – BIDDER'S JV MEMBERS FORM** of Bidding documents) on letter head of the firm, duly signed and stamped.	No		
5	Manufacturer's Authorization Form (as per **FORM 8.3 – MANUFACTURER'S AUTHORIZATION FORM** of Bidding documents) on letter head of the firm, duly signed and stamped.	Yes		
6	Bidder Profile Form (as per **FORM 8.4 – BIDDER PROFILE FORM** of Bidding documents) on letter head of the firm duly signed and stamped.	Yes		
7	General Information Form (as per **FORM 8.5 – GENERAL INFORMATION FORM** of Bidding documents) on letter head of the firm duly signed and stamped.	Yes		
8	Affidavit (as per **FORM 8.6 – AFFIDAVIT** of Bidding documents) on letter head of the firm, duly signed and stamped.	No		

9	Performance Guarantee Form (as per **FORM 8.7 – PERFORMANCE GUARANTEE FORM** of Bidding documents) on letter head of the firm, duly signed and stamped.	Yes		
10	Technical Bid Form (as per **FORM 8.8 – TECHNICAL BID FORM** of Bidding documents) on letter head of the firm, duly signed and stamped.	Yes		
11	Price schedule / Financial form (as per **FORM 8.10 – FINANCIAL BID FORM** of Bidding Documents) on letter head of the firm duly signed and stamped.	Yes		
12	Bid Security amounting to USD 175,000 in favor of "Mass transit Authority Non fare Revenue (NFR) Fund Accound) (as per **FORM 8.11 – FORM OF BID SECURITY** of Bidding Documents)**.**	Yes		

STAMP & SIGNATURE OF BIDDER _____

SECTION X – CONDITIONS OF THE CONTRACT

CONDITIONS OF CONTRACT

1.1 Definitions The following words and expressions shall have the meanings hereby assigned to them:

"**Acceptable Credit Rating**" means:

(a) with respect to persons that are incorporated or organised outside of Pakistan or to unsecured, unguaranteed and unsubordinated instruments issued by such persons, A- or higher by S&P, or AM Best, A3 or higher by Moody's, subject to counter guarantee by a AA rated scheduled bank of Pakistan; and

(b) with respect to persons that are incorporated or organised in Pakistan or to instruments issued by such persons or mutual funds established in Pakistan:

(i) in relation to such a person, a scheduled bank with rating AA or higher by PACRA or JCR-VIS or any equivalent mutual fund rating assigned by MUFAP; and

(ii) in relation to such an instrument, that it is rated a scheduled bank with rating AA- or higher by PACRA or JCR-VIS or any equivalent mutual fund rating assigned by MUFAP,

provided that where a person or any instruments (or as the case may be, a mutual fund) are rated by more than one of S&P, Moody's or Fitch or by PACRA or JCR-VIS or the equivalent mutual fund rating assigned by MUFAP, as applicable, then the lowest rating will apply for determining whether the person or instrument has an Acceptable Long-Term Credit Rating;

"**Advance Payment**" means the payment to be made by the Procuring Agency pursuant to Clause 11.2 (*Advance Payment*) in an amount equivalent to 20 percent of the Supply Price for Goods.

"**Advance Payment Bond**" means an irrevocable, unconditional and on-demand bank guarantee, having an Acceptable Credit Rating at all times, in an amount equal to the Advance Payment, issued by a first-class bank, having an Acceptable Credit Rating at all times, in each case acceptable to the Procuring Agency, in the form set out in **SCHEDULE 1 – FORM OF ADVANCE PAYMENT BOND.**

"**Advance Payment Bond Original Expiry Date**" has the meaning set

out in Clause 8.1(b).

"**Affected Party**" has the meaning set out in Clause 15.1.

"**Applicable Laws**" means all applicable laws, promulgated or brought into force and effect by the Federal Government of Pakistan and/ or any Provincial Government of Pakistan (including the Government of the Punjab), the Procuring Agency or any local government, as the case may be, including regulations and rules made thereunder, and judgments, decrees, injunctions, writs and orders of any court of record, as may be in force and effect during the subsistence of this Contract;

"**Applicable Standards**" mean the standards, requirements and criteria as applicable to the performance by the Manufacturer of the Manufacturer's Obligations as contained in:

(a) this Contract;

(b) the Procuring Agency's Requirements;

(c) the Laws (including the Applicable Laws);

(d) the Consent(s);

(e) the Approved Detailed Bus Design for the Prototype Bus;

(f) the Approved Final Bus Design for the Production Buses;

(g) the Environmental and Social Standards;

(h) the Prudent Practices; and

(i) the Standards,

provided however, in the event of any discrepancy in the standards, requirements, obligations and criteria set out in the above mentioned, the most stringent standards, requirements, obligations and criteria, as contained in any of the above-mentioned, shall apply;

"**Approved Concept Bus Design**" means the Concept Bus Design approved by the Procuring Agency in accordance with Clause 6.2(b)(i).

"**Approved Detailed Bus Design**" means the Detailed Bus Design approved by the Procuring Agency in accordance with Clause 6.3(b)(i).

"**Approved Final Bus Design**" means the Final Bus Design approved by the Procuring Agency in accordance with Clause 6.5(b)(i).

"**Approved Training Programme**" means the Training Programme approved by the Procuring Agency in accordance with Clause 5.10(b)(i).

"**Arbitration Act**" means the Pakistan Arbitration Act, 1940 (as may be amended, modified, supplemented, extended or re-enacted from time to time).

"**Batch of Goods**" means the shipment of Supply in accordance with the Schedule of Delivery to be delivered on or before the Scheduled Delivery Date.

"**Bid**" means the bid dated 28th April, 2025 submitted by the Manufacturer (being the successful bidder) in response to the Bidding Document.

"**Bid Submission Date**" means the date on which the Bid is submitted.

"**Bid Submission Deadline**" means the "Submission Deadline" for submission of Bids as specified in the Bidding Documents.

"**Bidding Documents**" means the bidding documents issued by the Procuring Agency on 28th March, 2025.

"**Buses**" means collectively the Prototype Bus and the Production Buses.

"**Bus Battery and Structure**" means the battery packs and electric motors, to be installed in the Buses and the outer physical structure of the Buses each as further described in the Procuring Agency's Requirements.

"**Bus Battery and Structure Warranty Obligations**" means, during the Bus Battery and Structure Warranty Period, warranty obligations of the Manufacturer in relation to the Bus Battery and Structure, including, remedying of Defect or Deficiencies, in each case, in accordance with the Applicable Standards and the timelines stated in this Contract.

"**Bus Battery and Structure Warranty Period**" means the period for notifying Defect or Deficiencies in the Bus Battery and Structure of any of the Buses which period shall commence from the Delivery Date and end on the date that is the earlier of:

(i) in relation to the battery pack, eight (08) years after the Delivery Date (subject to any extension under Clause 9.3 (*Extension of Warranty Period*));

(ii) in relation to the electric motor structure, **twelve (12) years** after the Delivery Date (subject to any extension under Clause 9.3 (*Extension of Warranty Period*)) or after the relevant Bus has run 1.2 million kilometers of service, whichever is earlier;

(iii) in relation to the structure, twelve (12) years after the Delivery Date (subject to any extension under Clause 9.3 (*Extension of Warranty Period*)) or after the relevant Bus has run 1.2 million kilometers of service, whichever is earlier; and/or

(iv) in relation to the slow and fast chargers, eight (08) years after the Delivery Date (subject to any extension under Clause 9.3 (*Extension of Warranty Period*)).

"**Certificate of Compliance**" means the certificate of compliance to be issued respectively for the Batch of Goods following inspection at the Delivery Point in accordance with Clause 6.8(b)(i).

"**Certificate of Rejection**" means the certificate of rejection that may be issued in respect of any Batch of Goods following inspection at the Delivery Point in accordance with Clause 6.8(b)(ii).

"**Concept Bus Design**" means the concept design for the Buses submitted by the Manufacturer in accordance with Clause 6.2(a).

"**Consents**" means all such approvals, consents, authorizations, no-objection certificates, notifications, grants or certificate of registration, concessions, acknowledgements, agreements, licenses, permits, summaries, decisions or similar items required to be obtained from any Relevant Authority by the Procuring Agency and/or the Manufacturer for the Project and the Manufacturer's Obligations.

"**Contract**" means, subject to Clause 1.16 (*Priority Of Documents*) and Clause 1.17 (*Agreement Modification*), this instrument entitled "Manufacturing And Supply Contract" including all Recitals, Preamble and Schedules attached hereto.

"**Cost**" means all expenditure reasonably and properly incurred (or to be incurred) by the Manufacturer, including overhead and similar charges, but does not include profit.

"**day**" means a calendar day beginning and ending at 12.00 midnight Pakistan Standard Time and "**year**" means each 12-month period commencing on 12:00 midnight on December 31 and ending on 12:00 midnight the following December 31 during the term of this Contract;

"**Default Delay Period**" means the days (or part thereof) that lapse between the Scheduled Delivery Date and the Delivery Date.

"**Defects or Deficiencies**" means any Manufacturer's Obligations (or any part thereof) that fail to conform to the Applicable Standards in any manner or are not Fit for Purpose.

"**Defective Goods**" has the meaning set out in Clause 6.8(b)(ii).

"**Delivery Completion Certificate**" means the certificate to be issued to the Manufacturer by the Procuring Agency confirming delivery of the Batch of Goods to the Delivery Point in accordance with the Order.
"**Delivery Date**" means the date of issuance of Certificate of Compliance for the Batch of Goods.

"**Delivery Point**" means the bus depot located at Chur Chowk, Peshawar Road, Rawalpindi or any other space/premises/location specified by the Procuring Agency in the Procuring Agency's Requirements for the delivery of the Goods.

"**Detailed Bus Design**" means the detailed design for the Buses prepared by the Manufacturer in accordance with Clause 6.3(a).

"**Dispute**" means any dispute or disagreement of any kind whatsoever between the Manufacturer and the Procuring Agency in connection with or arising out of this Contract.

"**Driver Training Programme**" means the driver training programme (as approved by the Procuring Agency in accordance with Clause 5.10 (*Training Programme*)) to be conducted by the Manufacturer for the Procuring Agency's Personnel as more specifically described in the Procuring Agency's Requirements.

"**Effective Date**" means the date this Contract comes into full force and effect pursuant to Clause 1.5 (*Effective Date & Term*).

"**Environmental Liabilities**" means all Losses (including, without limitation, the reasonable costs of investigation, abatement, mitigation or remediation and reasonable attorneys' fees and costs), whether or not quantified in amount, relating to the presence in the environment of disturbances to the environment or local community attributable to the Manufacturer's Obligations including any violation by the Manufacturer, its agents or employees, of any environmental Laws under the Applicable Laws or the Environmental and Social Standards, in each case, following the Effective Date until the date of issue of the Release Certificate.

"**Environmental and Social Standards**" means the environmental guidelines, the environmental impact assessment ("**EIA**") and or any

other environmental study or report in each case approved by the relevant authority, and occupational health and safety standards and/or requirements, the Equator Principles as prescribed by the World Bank, the environmental policies and procedures of the Asian Development Bank and pursuant to Pakistan Environmental Protection Act 1997 (as amended thereto) and Punjab Protection Act, 1997 (as amended thereto), and other enabling laws;

"**Equator Principles**" means a credit risk management framework for determining, assessing and managing environmental and social risk in project finance transactions;

"**Excluded Taxes**" has the meaning set out in Clause 11.19(b).

"**Extended Warranty Items**" has the meaning set out in Clause 9.3(a).

"**Extended Warranty Period** has the meaning set out in Clause 9.3(b).

"**Face Value**" means, in respect of each of the Manufacturer's Securities, the amount (at any time) available for drawing / encashment under such Manufacturer's Security.

"**Final Statement**" means the final statement submitted by the Manufacturer as part of an application for payment under Clause 11 (*Supply Price and Payment*).

"**Final Bus Design**" means the final bus design for the Buses submitted by the Manufacturer in accordance Clause 6.5(a).

"**Final Release Certificate**" means the certificate to be issued to the Manufacturer in accordance with Clause 9.9 (*Final Release Certificate*) on fulfilment of the Final Release Certificate Criteria.

"**Final Release Certificate Criteria**" means criteria for issuance of the Final Release Certificate set out in **SCHEDULE 9 – FINAL RELEASE CERTIFICATE CRITERIA.**

"**Final Release Date**" means the date of issuance of the Final Release Certificate.

"**Fit for Purpose**" means performance by the Manufacturer of the Manufacturer's Obligations in full compliance with the Applicable Standards.

"**Force Majeure Events**" shall bear the meaning as ascribed thereto in Clause 15 (*Force Majeure*);

"**Force Majeure Notice**" shall bear the meaning as ascribed thereto in Clause 15.2(a);

"**Goods**" means the Buses (including the Bus Battery and Structure),

Spare Parts, one set of tools and diagnostic equipment procured by the Procuring Agency from the Manufacturer, each in accordance with the Procuring Agency's Requirements.

"**Goods Warranty Obligations**" means, during the Goods Warranty Period, warranty obligations of the Manufacturer in relation to the Goods (except the Bus Battery and Structure), including, remedying of Defect or Deficiencies, in each case, in accordance with the Applicable Standards and the timelines stated in this Contract.

"**Goods Warranty Period**" means a period that will commence on the Delivery Date and end on the date that is two (02) years after the Delivery Date (subject to any extension under Clause 9.3 (Extension of Warranty Period)).

"**GoP**" means the provincial Government of the Punjab;

"**IE Certificate of Compliance**" means the certificate of compliance to be issued by the Independent Expert respectively for the Batch of Goods following inspection prior to dispatch of each Batch of Goods from the country of origin in accordance with Clause 6.9(b)(i).

"**IE Certificate of Rejection**" means the certificate of rejection that may be issued by the Independent Expert in respect of any Batch of Goods following inspection prior to dispatch of each Batch of Goods from the country of origin in accordance with Clause 6.9(b)(ii).

"**Independent Expert**" means the independent third party selected following mutual agreement between the Parties and appointed by the Manufacturer at its own cost within three (3) months from the issuance of the Notice to Proceed.

"**Inferred Works**" has the meaning set out in Clause 4.1(b).

"**Interim Payments**" means instalments of the Supply Price payable in such amounts and on completion of such Payment Milestones as set out in the Schedule of Payment Milestones.

"**Laws**" means all national (or state, provincial or local) legislation, statutes, ordinances and other laws, and all regulations, by-laws, rules, orders, decrees, judicial decisions, delegated legislation, directives, guidelines (to the extent mandatory) policies or code of any legally constituted authority having necessary power and jurisdiction, as amended from time to time and the same shall include the Applicable Laws.

"**Letter of Credit**" or "**LC**" means the letter of credit, to be established by the Procuring Agency in favour of the Manufacturer in accordance with Clause 11.6 (*Timing and Mode of Payments for Supply Price for Goods*) for an amount equal to the Supply Price for Goods.

"**LC Documents**" has the meaning given to that term in Clause 11.6 (*Timing and Mode of Payments for Supply Price for Goods*).

"**Local Authorized Dealer**" means who, in accordance with in Clause 4.4 (*Local Authorized Dealer*), acts on behalf of the Manufacturer as its local agent in Pakistan to be permanently deployed till the Final Release Date.

"**Long Stop Date**" means date falling three (3) months following the Effective Date.

"**Loss(es)**" means any loss, claim, damage, liability, judgment, payment or obligation (excluding any indirect or consequential loss, damage, liability, payment or obligation), and all costs and expenses (including without limitation reasonable attorneys' fees) related thereto and amounts in settlement in lieu thereof.

"**Maintenance Supervision**" means the vehicle maintenance supervision to be provided by the Manufacturer for the Procuring Agency's Personnel as more specifically described in the Procuring Agency's Requirements.

"**Maintenance Training Programme**" means the maintenance training programme (as approved by the Procuring Agency in accordance with Clause 5.10 (*Training Programme*)) to be conducted by the Manufacturer for the Procuring Agency's Personnel as more specifically described in the Procuring Agency's Requirements.

"**Manufacturer**" has the meaning set out in the preamble.

"**Manufacturer's Authorized Representative**" has the meaning set out in Clause 4.3(a).

"**Manufacturer's Documents**" means the calculations, computer programs and other softwares, drawings, manuals, models and other documents of a technical nature supplied by the Manufacturer in respect of the Manufacturer's Obligations under this Contract, as described in Clause 5.2 (*Manufacturer's Documents*).

"**Manufacturer's Personnel**" means the Manufacturer's Authorized Representative(s), Local Authorized Dealer, employees, all personnel including staff, labour of the Manufacturer and any sub-supplier and any other personnel assisting the Manufacturer in the execution of the Manufacturer's Obligations.

"**Manufacturer's Security(ies)**" means the Advance Payment Bond, the Performance Guarantee and the Warranty Bond each of which shall be denominated and payable in USD.

"**Manufacturer's Taxes**" means and includes all taxes, duties, and

fees (others than Procuring Agency's Taxes) including taxes on income of the Manufacturer and all other taxes, duties and charges (including custom and import duties), in each case, that may be applicable to the Goods, delivery to the Delivery Point (including any associated custom and import duties for clearance of imported Goods from the port in the Manufacturer's country) and other Manufacturer's Obligations, provided, however, the aforesaid taxes in each case shall be deemed to be included in the Supply Price.

"**Manufacturer's Obligations**" means all obligations of the Manufacturer under this Contract, including but not limited to, the procurement and supply of the Goods, the Services, the Manufacturer's Documents, payments of damages and indemnities, the Warranty Obligations including remedying of Defect or Deficiencies and Serial Defects, in each case, in accordance with the Applicable Standards and the timelines stated in this Contract.

"**Non-Compliant Goods**" has the meaning set out in Clause 6.9(b)(ii).

"**Non-Political Event**" has the meaning set out in Clause 15.1(b).

"**Notice to Proceed**" means the notice to commence the Manufacturer's Obligations, to be issued by the Procuring Agency to the Manufacturer in accordance with this Contract.

"**Order**" has the meaning set out in Clause 6.6(a) and includes any revisions thereto in terms of Clause 10 (*Variations and Adjustments*).

"**Order Date**" means the date on which order for Production Buses is submitted by the Procuring Agency to the Manufacturer in accordance with Clause 6.6(a).

"**Pakistan**" means the Islamic Republic of Pakistan.

"**Party**" means the Procuring Agency or the Manufacturer, as the context requires.

"**Payment Milestones**" means the milestones identified in the Schedule of Payment Milestones.

"**Payment Milestone Completion Certificate**" means the certificates issued by the Procuring Agency and/or Procuring Agency's Engineer certifying and approving the completion of each Payment Milestone in accordance with Clause 11.3(d)(i).

"**Payment Milestone Rejection Certificate**" means the certificates (if any) issued by the Procuring Agency and/or Procuring Agency's Engineer rejecting the completion of the relevant Payment Milestone along with the reasons for rejection in accordance with Clause 11.3(d)(ii).

"**Performance Guarantee**" means an irrevocable, unconditional and on demand commercial bank guarantee in an amount set out in Clause 8.2 (*Performance Guarantee*), issued by a first-class bank (having a Minimum Credit Rating at all times) acceptable to the Procuring Agency in the form set out in Schedule 2 – Form Of Performance Guarantee.

"**Performance Guarantee Original Expiry Date**" has the meaning set out in Clause 8.2(b).

"**Political Event**" has the meaning set out in Clause 15.1(a).

"**Procuring Agency**" has the meaning set out in the preamble.

"**Procuring Agency's Engineer**" means the consulting engineer, or engineering company, of international repute appointed by the Procuring Agency for inter alia supervision, verification and certification of the Manufacturer's Obligations pursuant to this Contract.

"**Procuring Agency's Personnel**" means the Procuring Agency's Representative and all other staff, labour, contractors, drivers, operators, agents, representatives, consultants and other employees personnel engaged by the Procuring Agency.

"**Procuring Agency's Representative**(s)" means any person or persons appointed from time to time by the Procuring Agency to act on behalf of the Procuring Agency as the Procuring Agency's Representatives under this Contract.

"**Procuring Agency's Requirements**" means the requirements set out in **SCHEDULE 4 – PROCURING AGENCY'S REQUIREMENTS**, which specify the purpose, scope, standards, and/or other technical criteria including specifications for the Goods, Services, and other Manufacturer's Obligations.

"**Procuring Agency's Taxes**" means and includes all Pakistani taxes consisting of: (i) custom and import duties, sales tax, federal excise duty, and other duties and fees payable in the government treasury of Pakistan in respect of the Goods; and (ii) withholding income tax and any tax to be deducted or withheld from the gross amount payable by the Procuring Agency to the Manufacturer on account of all payments being made for Manufacturer's Obligations, in each case shall be the responsibility of the Procuring Agency.

"**Production Bus**" means the buses to be manufactured by the Manufacturer based on the Approved Final Bus Design in accordance with Clause 6.6 (*Manufacture of Buses*).

"**Programme**" has the meaning set out in Clause 7.3 (*Programme*).

"**Project**" means the assignment relating to the procurement and supply of electric buses for induction of the same in the city of Rawalpindi, Punjab.

"**Prototype Bus**" means the protype bus to be manufactured by the Manufacturer based on the Approved Detailed Bus Design in accordance with Clause 6.4(a).

"**Prototype Tests**" means the tests required to be carried out on the Prototype Bus as more specifically described in the Procuring Agency's Requirements.

"**Prototype Tests Acceptance Certificate**" means the certificate issued by the Procuring Agency certifying successful completion of the Prototype Tests in accordance with Clause 6.4(c).

"**Prudent Practices**" means the degree of skill and judgment and the use of equipment, practices, techniques, standards and methods that are generally expected of a skilled and experienced manufacturer of equipment and goods of the type being supplied under this Contract including, without limitation, compliance with applicable industry codes, standards, and regulations in Pakistan and of other countries from where the Goods will be procured and with respect to remedying of defects, to protect the Procuring Agency's and Manufacturer's properties including the Project, employees, agents, and customers from defects occurring in the Goods and other Manufacturer's Obligations.

"**Release Certificate**" means the certificate to be issued to the Manufacturer in accordance with Clause 9.8 (*Release Certificate*) on fulfilment of the Release Certificate Criteria.

"**Release Certificate Criteria**" means criteria for issuance of the Release Certificate set out in **SCHEDULE 8 – RELEASE CERTIFICATE CRITERIA**.

"**Release Date**" means the date of issuance of the Release Certificate.

"**Relevant Authority**" means the department, authority, instrumentality, agency, entity or other person or body of the Federal Government of Pakistan and/or Government of the Punjab from which any Consent is to be obtained and any authority or body or person having jurisdiction under the Laws of Pakistan and Punjab with respect to the Procuring Agency, the Manufacturer, the Project (other than department, authority, instrumentality, agency, entity or other person or body of the Federal Government of Pakistan or Government of the Punjab that enters into contractual or other arrangements with the Procuring Agency in respect of the Project in its private and commercial capacity).

"**Registration Formalities Invoice**" has the meaning set out in Clause 11.10.

"**Retention Money**" means the amount of money, which shall be denominated and payable in USD, retained by the Procuring Agency from the Total Supply Price, equivalent to five percent (5%) of the Supply Price, duly accepted by the Procuring Agency in the form of irrevocable bank guarantee as "Retention Money Bond", issued by the Manufacturer in favour of the Procuring Agency, from any bank having the Acceptable Credit Rating for ensuring quality of work in respect of Manufacturer's Obligations for the specified period.

"**Schedule of Delivery**" means the schedule set out as **SCHEDULE 7 – SCHEDULE OF DELIVERY** stipulating the timelines for the execution of the Manufacturer's Obligations including: (a) design, manufacture and the Scheduled Delivery Date for delivery of the Goods; and (b) performance of the relevant Services (as may be revised in accordance with this Contract).

"**Scheduled Delivery Date(s)"** means the date not exceeding six (06) months from the date of issuance of notice to proceed for completing the shipment of Supply for the Batch of Goods in accordance with the Schedule of Delivery and Clause 7.2 (Scheduled Delivery Date) subject to any extensions under Clause 7.4 (Extension of Scheduled Delivery Date).

"**Schedule of Payment Milestones**" means the schedule set out as **SCHEDULE 7 – SCHEDULE OF PAYMENT MILESTONES** stipulating the Payment Milestones (as may be revised in accordance with this Contract) to be used for the calculation of Interim Payments.

"**Serial Defects**" means a substantially similar defect in the Buses, i.e. a failure showing the similar symptoms occurring in the same part or component of at least five (05) Buses.

"**Serial Defects Notification Period**" means in respect of the Buses, the period commencing on the Delivery Date and continuing until the Release Date.

"**Services**" means, whenever the context permits or requires, any or all of the services as set out in detail in the Procuring Agency's Requirements including the Driver's and Maintenance Training Programme, Vehicle Registration Formalities and Maintenance Supervision to be performed in accordance with the Applicable Standards and which are required to ensure that the Manufacturer's Obligations are Fit for Purpose.

"**Spare Parts**" means such materials, spare parts, replacement components (including critical and specialist spare parts as well as generic parts and consumables) and other such items required for the operations and maintenance of the Buses (as specified in the Procuring Agency's Requirements) to be supplied by the Manufacturer under this Contract in accordance with the Schedule of

Delivery.

"**Statement**" means a statement submitted by the Manufacturer as part of an application for payment under Clause 11 (Supply Price and Payment).

"**Standards**" means all standards, requirements, obligations, specifications relating to the Manufacturer's Obligations as specified in this Contract or otherwise required by Law.

"**Sub-supplier**" means any person named in this Contract as a sub-supplier and identified in the list set forth in **SCHEDULE 10 – LIST OF SUB-SUPPLIERS**, or any person appointed as a sub-supplier, for a part of the Goods, or for undertaking any part of the Manufacturer's Obligations and the legal successors in title to each of these persons, or a secondary entity being a company and/or manufacturer that shall provide goods or components to the Manufacturer.

"**Supply**" means the procurement, supply and delivery of the Goods to the Delivery Point in terms of this Contract.

"**Supply Price**" means collectively the Supply Price for Goods and the Supply Price for Services.

"**Supply Price for Goods**" means the sum of USD [*insert price from winning bid*] being the total fixed lump sum amounts payable in USD to the Manufacturer for the supply and delivery of Goods at delivery point (Rawalpindi, Pakistan), as adjusted pursuant to Clauses 6.6(a) and (b) based on the Order or otherwise pursuant to the terms of Clause 7.8(a), Clause 9.4(b)(ii), Clause 10.3(d), Clause 11.19(b).

"**Supply Price for Services**" means the sum of PKR [*insert price from winning bid*] being the total fixed lump sum amounts payable in PKR [•] to the Manufacturer for the Manufacturer's Obligations (other than for the Supply and delivery of Goods), as adjusted pursuant to Clauses 6.6(a) and (b) based on the Order or otherwise pursuant to the terms of Clause 7.8(a), Clause 9.4(b)(ii), Clause 10.3(d) and Clause 11.19(b).

"**Test Location**" means the location of any testing within or outside of Pakistan, including but not limited to factories in which the Buses, or any part thereof, is being manufactured or tested.

"**Training Programme**" means collectively the Driver Training Programme and the Maintenance Training Programme.

"**Transferor**" has the meaning set out in Clause 1.19 (Novation).

"**Transferee**" has the meaning set out in Clause 1.19 (Novation).

"United **States** Dollar", "**USD**" or "**US$**" means the lawful currency of

the United States of America.

"**Variation**" means any change to the Procuring Agency's Requirements or the Manufacturer's Obligations, which is instructed or approved as a variation under Clause 10 (*Variations and Adjustments*).

"**Vehicle Registration Formalities**" means the full vehicle homologation, registration and licensing for each of the Buses as more specifically described in the Procuring Agency's Requirements.

"**Warranty Bond**" means an irrevocable, unconditional and on demand commercial bank guarantee in an amount equal to 10 % of the Supply Price, issued by a first-class bank (having a Minimum Credit Rating at all times) acceptable to the Procuring Agency and shall be in the form set out in **SCHEDULE 3 – FORM OF WARRANTY BOND**;

"**Warranty Bond Original Expiry Date**" has the meaning set out in Clause 8.3(b).

"**Warranty Obligations**" means, as applicable, the Bus Battery and Structure Warranty Obligations and/or the Goods Warranty Obligations.

"**Warranty Period**" means, as applicable, the Bus Battery and Structure Warranty Period and/or the Goods Warranty Period.

1.2 Interpretation In this Contract, except where the context requires otherwise:

(a) words indicating one gender include all genders;

(b) words indicating the singular also include the plural and words indicating the plural also include the singular;

(c) provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing;

(d) "written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record;

(e) references to Clauses, Schedules and Annexes are, unless the context otherwise requires, references to Clauses, Schedules or Annexes to this Contract;

(f) a reference to any legislation or legislative provision includes any statutory modification, amendment, or re-enactment of or legislative provision substituted for, and any subordinate legislation under that legislation or legislative provision;

(g) unless otherwise provided herein, whenever a consent or approval is required by one Party from the other Party, such consent or approval shall not be unreasonably withheld or delayed;

(h) except as provided in Clause 1.7 (*Confidentiality*), nothing shall be construed or interpreted as limiting, diminishing or prejudicing in any way the rights of the Procuring Agency to claim any benefit provided under Applicable Laws (whether in effect now or in the future);

(i) headings shall not be taken into consideration in the interpretation of this Contract;

(j) the words "including", "includes" and any variants of those words will be read as if followed by the words "without limitation";

(k) any reference to a party includes its respective successors in interest and permitted assigns, from time to time;

(l) unless otherwise specifically provided in this Contract, a reference to an agreement shall be a reference to that agreement as amended, re-stated, supplemented, modified or novated from time to time; and

(m) a reference to business day(s) hereunder will be construed as a reference to a day on which banks are legally permitted to be open for business in Pakistan and, in respect of the Manufacturer Securities, such other jurisdictions where an issuer of one or more Manufacturer Securities is situated.

1.3 Communications

(a) Except as expressly provided in this Contract, every certificate, notice, instruction, direction, order, consent or decision to be given under this Contract shall be given in writing to the respective addressee at the corresponding address specified below (or such other address and/or addressee as the Manufacturer may notify to the Procuring Agency or the Procuring Agency may notify to the Manufacturer (as the case may be) in writing upon fifteen (15) days advance notice and shall be effective when received) and shall be deemed effective as follows:

(i) if delivered personally, upon delivery;

(ii) if sent by post, upon certified receipt;

(iii) if sent by a courier service, upon receipt;

(iv) if sent by e-mail, upon a returned receipt.

(b) If to Manufacturer:

ATTENTION:	[•]
TELEPHONE:	[•]
EMAIL ADDRESS:	[•]

(c) If to Procuring Agency:

ATTENTION:	Muhammad Ozair Shah, GM Operations, PMA
TELEPHONE:	92-42-99028000
EMAIL ADDRESS:	rizwan.aziz@pma.punjab.gov.pk

1.4 Law and Language

(a) This Contract shall be governed by and construed in accordance with the laws of land of Pakistan.

(b) If there are versions of any part of this Contract which are written in more than one language, the English language version shall prevail.

(c) The language for all communications, documents, manuals, equipment interface and signage to be provided or required under this Contract shall be English. The Manufacturer shall not be entitled to an extension of time, or to payment of any Cost incurred in each case for arranging English language translations for any communications, documents (including Manufacturer's Documents), manuals, equipment interface and signage to be provided or required under this Contract.

1.5 Effective Date and Term

This Contract shall:

(a) come into full force and effect on the Effective Date; and

(b) except as otherwise provided herein, remain in full force and effect until the Final Release Certificate issuance date.

1.6 Assignment

(a) The Manufacturer shall not be entitled to assign either in whole or in part any of its rights and obligations under this Contract to any party without the prior written consent of the Procuring Agency.

(b) Except as provided below, the Procuring Agency shall not be entitled to assign either in whole or in part any of its rights and obligations under this Contract to any party without the prior written consent thereto of the Manufacturer which consent shall not be unreasonably withheld.

1.7 Confidentiality

(a) The Manufacturer shall procure that the Manufacturer's Personnel, Sub-suppliers, consultants and agents shall hold in confidence all documents and other information whether technical or commercial supplied to it by or on behalf of the Procuring Agency and all information and documents obtained by it in the course of any inspection performed in accordance with the terms of this Contract, and shall not, save as required by Law, publish or otherwise disclose or use the same for its own purposes otherwise than as may be required to perform its obligations under this Contract.

(b) The provisions set out above shall not apply to:

(i) any information in the public domain otherwise than by breach of this Contract;

(ii) information in the possession of the Manufacturer before divulgence as aforesaid, and which was not obtained under any obligation of confidentiality; and

(iii) information obtained from a third party who is free to divulge the same, and which is not obtained under any obligation of confidentiality

1.8 Manufacturer Information

The Manufacturer shall within ten (10) days of receipt of a request (or otherwise agreed with the Procuring Agency) from the Procuring Agency, disclose any information which the Procuring Agency may reasonably require in order to verify the Manufacturer's compliance with this Contract.

Moreover, the Manufacturer represents that the information, documents, reports and submissions of any kind made to the Procuring Agency pursuant to this Contract shall at all times be up-to-date, and in a format suitable for online record sharing, in a secure manner, to the satisfaction of the Procuring Agency.

1.9 Compliance with Laws

The Manufacturer shall, in performing this Contract, comply with all Applicable Laws. Unless otherwise stated in the Procuring Agency's Requirements:

(a) The Manufacturer shall bear costs of stamp duties and similar charges (if any) imposed by law of land of Pakistan in connection with: (i) entry into this Contract; and (ii) any similar costs or charges applicable outside Pakistan including the costs of stamp duties and similar charges on the Manufacturer's Securities, shall be borne by the Manufacturer.

(b) The Manufacturer shall give all notices and pay all taxes, duties and fees to be paid by the Manufacturer, in relation to the execution and completion of the Manufacturer's Obligations and the remedying of any defects; and the Manufacturer shall indemnify and hold the Procuring Agency harmless against and from the consequences of any failure to do so.

(c) The Manufacturer acknowledges the provisions set out in this Contract and the Laws relating to any Consents, and in particular the provisions relating to applications for Consents and the provision of status reports relating thereto. The Manufacturer shall obtain and maintain all Consents that are required by the Laws in relation to the execution and completion of the Manufacturer's Obligations, including those Consents as having been (or being) obtained by the Manufacturer and shall comply with all the provisions relating thereto in the Laws and this Contract in a timely manner and in order to fulfil the Procuring Agency's obligations thereunder; and the Manufacturer shall indemnify and hold the Procuring Agency harmless against and from the consequences of any failure to do so.

(d) Any fines imposed upon or other penalties incurred by the Manufacturer for non-compliance with the Applicable Laws (including Laws) or other actions taken pursuant thereto (including in relation to any Consents) shall not be reimbursed by the Procuring Agency but shall be the sole responsibility of the Manufacturer.

1.10 No Liability For Review

No review, non-objection, approval or acceptance by the Procuring Agency of any agreement, document or instrument proposed by the Manufacturer shall relieve the Manufacturer from any liability that it would otherwise have had in the preparation of such agreement, document, instrument, drawing or specification or failure to comply with Applicable Laws (including Laws) or to satisfy the Manufacturer's Obligations under this Contract, except as otherwise specified in this Contract. The Procuring Agency is not liable to the Manufacturer or any other person by reason of its review, non-objection, approval or acceptance of any agreement, document, instrument, drawing or specification, except as otherwise specified in this Contract.

1.11 No Waiver

(a) No waiver by either Party of any default or defaults by the other Party in the performance of any of the provisions of this Contract:

(i) shall operate or be construed as a waiver of any other or further default or defaults whether of a like or different character; or

(ii) shall be effective unless in writing duly executed by a duly

authorized representative of such Party; or

(iii) the waiver of any breach or failure to enforce any of the terms, covenants or conditions of this Contract shall not in any way affect, limit, modify or waive the future enforcement of such terms, covenants or conditions.

(b) Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Contract nor time or other indulgence granted by one Party to the other shall act as a waiver of such breach or acceptance of any variation or the relinquishment of any such right or any other right hereunder, which shall remain in full force and effect.

1.12 Relationship of the Parties This Contract shall not be interpreted or construed to create an association, joint venture, or partnership between the Parties or to impose any partnership obligation or liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

1.13 Survival Cancellation, expiration or earlier termination of this Contract shall not relieve the Parties of obligations that by their nature should survive such cancellation, expiration, or termination, including, without limitation, warranties, remedies, promises of indemnity, and confidentiality.

1.14 Affirmation The Manufacturer declares and affirms that it has not paid nor has it undertaken to pay and that it shall in the future not pay any bribe, pay-offs, kick-backs or unlawful commission and that it has not in any other way or manner paid any sums, whether in Pakistani currency or foreign currency and whether in Pakistan or abroad, or in any other manner given or offered to give any gifts and presents in Pakistan or abroad to any person or company to procure this Contract, and the Manufacturer undertakes not to engage in any of the said or similar acts during the term of and relative to this Contract.

1.15 Subcontracting This Contract, Schedules and the Annexes hereto are intended by the Parties as the final expression of their agreement on the matters contained herein and are intended also as a complete and exclusive statement of the terms of their agreement with respect to the Manufacturer's Obligations. All prior written or oral representations, understandings, offers, or other communications of every kind pertaining to the Manufacturer's Obligations hereunder to the Procuring Agency by the Manufacturer and any other prior agreement between the Parties in respect of the Project ''Induction of Eco-Friendly Buses in Cities of Punjab'' are hereby superseded.

1.16 Priority of Documents The documents forming this Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority

of the documents shall be in accordance with the following sequence:

(a) Any amendment or modification made by both Parties after the Effective Date of this Contract;

(b) SCHEDULE 4 – PROCURING AGENCY'S REQUIREMENTS; and

(c) Clauses 1 (*General Provisions*) to 18 (*Counterparts*) (inclusive);

(d) All other Schedules (together with their Annexes).

1.17 Agreement Modification

No oral or written modification of this Contract, either, before or after its execution, shall be of any force or effect unless such modification is in writing and signed by the Procuring Agency and the Manufacturer.

1.18 Severability

In the event of part of this Contract being ineffective, such part shall be deemed to be severed and the validity of the remaining portion shall not be affected, provided such ineffectiveness is without prejudice to the essence of this Contract. Notwithstanding, the provisions of the preceding sentence, should any term or provision of this Contract be found invalid by any Relevant Authority having jurisdiction thereof, the Parties shall immediately renegotiate in good faith such terms or provisions of this Contract to eliminate such invalidity.

1.19 Novation

Subject to obtaining all relevant prior approvals, the Procuring Agency (the "**Transferor**") may assign or transfer by novation all or any part of its rights, interests, benefits or obligations under this Contract to any entity or entities assuming all or part of the Transferor's rights and obligations under this Contract (the "**Transferee**") so long as such Transferee shall assume in writing for the benefit of the Transferor and Manufacturer all of the obligations of the Transferor under this Contract. Upon such assignment or transfer and assumption, the Transferor shall be relieved of all obligations assigned or transferred to and assumed by the Transferee under this Contract. The Manufacturer hereby agrees and undertakes, as required by the Procuring Agency to enter into and execute such further documents (in such form and substance as prescribed by the Procuring Agency) to give effect to the aforesaid assignment or transfer by novation.

2. The Procuring Agency

2.1 Consents

Each Party shall (where it is in a position to do so) provide reasonable assistance to the responsible Party at the responsible Party's request and cost with applications for any consents or approvals required by the Applicable Laws which the Party is required to obtain under Clause 1.9 (*Compliance with Laws*).

2.2 Procuring Agency's Claims

(a) Except for delay liquidated damages quantified in Clause 7.6 (*Delay Damages*) and amounts invoiced by Procuring Agency for failure to remedy defects pursuant to Clause 9.4 (*Failure to Remedy Defects*), if

the Procuring Agency considers itself to be entitled to any payment under this Contract, and/or to any extension of the Warranty Period and/or the extension (if any) of the relevant performance deadline in accordance with Clause 15 (*Force Majeure*), the Procuring Agency shall give notice and particulars to the Manufacturer pursuant to this Clause.

(b) The notice shall be given as soon as practicable after the Procuring Agency becomes aware of the event or circumstances giving rise to the claim. A notice relating to any extension of the Warranty Period shall be given before the expiry of such period.

(c) The particulars shall specify the Clause or other basis of the claim and shall include substantiation of the amount and/or extension to which the Procuring Agency considers itself to be entitled in connection with this Contract. The Procuring Agency shall then proceed in accordance with Clause 3.3 (*Determinations*) to agree or determine:

(i) the amount (if any) which the Procuring Agency is entitled to be paid by the Manufacturer; and/or

(ii) the extension (if any) of the Warranty Period in accordance with Clause 9.3 (*Extension of Warranty Period*); and/or the extension (if any) of the relevant performance deadline in accordance with Clause 15 (*Force Majeure*).

(d) The Manufacturer shall be obligated to pay the Procuring Agency such amounts determined pursuant to this Clause 2.2 (*Procuring Agency's Claims*). The Procuring Agency may also set off or deduct any amounts determined pursuant to this Clause 2.2 (*Procuring Agency's Claims*) from any moneys due, or to become due, to the Manufacturer and/or the Procuring Agency shall be entitled to encash the Manufacturer 's Securities or to otherwise claim against the Manufacturer, in accordance with this Clause. The Procuring Agency shall be entitled to withhold payments in accordance with Clause 11.4(b) and Clause 11.11(a).

(e) The Manufacturer shall be obligated to pay to the Procuring Agency such amounts determined pursuant to this Clause 2.2 (*Procuring Agency's Claims*). The Procuring Agency may set off or deduct this amount from any moneys due, or to become due, to the Manufacturer. The Procuring Agency shall also be entitled to encash the Manufacturer Securities for recovering such amounts. The Procuring Agency shall be entitled to set off against or make any deduction from an amount due to the Manufacturer, or to otherwise

claim against the Manufacturer, in accordance with the relevant provisions of this Contract.

3. The Procuring Agency's Administration

3.1 The Procuring Agency's Representative

(a) The Procuring Agency shall designate one or more persons as Procuring Agency's Representative to act on its behalf under this Contract. The duties and authority of the Procuring Agency's Representative are to administer this Contract, to monitor progress by the Manufacturer in completion of the Manufacturer's Obligations, to audit the Manufacturer's quality assurance and quality control programs, to review Manufacturer's Documents, to monitor the Manufacturer's performance with respect to the Procuring Agency's Requirements and standards, to supervise and witness tests carried out by the Manufacturer, to verify payment applications submitted by the Manufacturer, and other such duties as may be required to confirm the Manufacturer's fulfillment of its obligations under this Contract and to exercise the duties and rights of the Procuring Agency under this Contract.

(b) The Procuring Agency's Representative shall carry out the duties assigned to it and shall exercise the authority delegated to it, by the Procuring Agency. Unless and until the Procuring Agency notifies the Manufacturer otherwise, the Procuring Agency's Representative shall be deemed to have the full authority of the Procuring Agency under this Contract, except in respect of Clause 12 (Termination by Procuring Agency) or any right to amend this Contract. Notwithstanding the appointment of Procuring Agency's Representative with power to monitor and supervise the progress of the Manufacturer, the Manufacturer shall remain fully responsible for its obligations under this Contract, and knowledge of the Procuring Agency's Representative of any activities of the Manufacturer will not have the effect of absolving the Manufacturer of its obligations or liabilities under this Contract.

(c) In the event the Procuring Agency wishes to replace any person appointed as Procuring Agency's Representative, the Procuring Agency shall give the Manufacturer not less than fourteen (14) days' notice of the replacement's name, address, duties, and authority, and of the date of appointment.

(d) The Procuring Agency may involve the Procuring Agency's Engineer and/or any operator engaged by the Procuring Agency in respect of the Project with respect to any approval functions of the Procuring

Agency under this Contract and for such purposes the Procuring Agency's Engineer and/or any operator shall be deemed to be acting as a Procuring Agency's Representative.

3.2 Instructions

(a) The Procuring Agency may issue to the Manufacturer instructions which may be necessary for the Manufacturer to perform its obligations under this Contract. Each instruction shall be given in writing and shall state the obligations to which it relates and the Clause (or other term of this Contract) in which the obligations are specified. If any such instruction constitutes a Variation, Clause 10 (*Variations and Adjustments*) shall apply.

(b) The Manufacturer shall take instructions from the Procuring Agency, or from the Procuring Agency's Representative or an assistant to whom the appropriate authority has been delegated under this Clause.

3.3 Determinations

(a) Whenever this Contract provides that the Procuring Agency shall proceed in accordance with this Clause 3.3 (*Determinations*) to agree or determine any matter, the Procuring Agency may consult with the Manufacturer in an endeavor to reach an agreement. If an agreement is not achieved, the Procuring Agency shall make a fair determination in accordance with this Contract, taking due regard to all relevant circumstances.

(b) The Procuring Agency or the Procuring Agency's Representative shall give notice to the Manufacturer of each agreement or determination, with supporting documents. If the Manufacturer disagrees with such determination, the Manufacturer shall give notice, to the Procuring Agency, of its dissatisfaction with a determination within fourteen (14) days of receiving it. Either Party may then refer the Dispute for dispute resolution in accordance with Clause 17 (*Claims, Disputes, and Arbitration*).

4. The Manufacturer

4.1 Manufacturer's General Obligations

(a) In consideration of the payments of the Supply Price to be made by the Procuring Agency to the Manufacturer under this Contract, the Manufacturer hereby covenants with the Procuring Agency:

(i) to design a Prototype Bus in accordance with the Standards as specified in this Contract and in accordance with RFP & Technical Proposal approved by the Procuring Agency or otherwise required by Law;

(ii) to manufacture and produce Prototype Bus in accordance with the Approved Detailed Bus Design;

(iii) following issuance of the Prototype Tests Acceptance Certificate, to manufacture and produce the Production Buses in accordance with the Approved Final Bus Design under Clause 6.6 (*Manufacture of Buses*);

(iv) to supply the Buses to the Procuring Agency in accordance with the Schedule of Delivery by the Scheduled Delivery Date;

(v) to supply Spare Parts to the Procuring Agency in accordance with Clause 5.9 (*Supply of Spare Parts*);

(vi) to perform the Services in accordance with the Schedule of Delivery including provision of training as per the Training Programme in accordance with Clause 5.10 (*Training Programme*);

(vii) to remedy any Defects or Deficiencies or any Serial Defects.

in accordance with this Contract and the Laws of Pakistan, with the care and diligence appropriate for a company of international standing and reputation. When the Goods are supplied, the Goods shall be suitable and Fit for Purpose.

(b) The supply shall include any equipment which is necessary to satisfy the Procuring Agency's Requirements as per project scope, or is implied by this Contract, and all equipment which are necessary for stability or for the completion, or safe and proper operation, of the Goods and execution of the Project subject to the condition that no major financial impact would be caused in respect of the supply price. In furtherance of the foregoing, the Manufacturer's Obligations shall include any works that are not specifically mentioned in this Contract but which may be inferred from this Contract to be part of the Manufacturer's scope of work and which are necessary for the proper performance of the Manufacturer's Obligations in accordance with the requirements of this Contract for the stability, completion, and the safe, reliable and efficient operation of the Goods so that, in each case, the same are Fit for Purpose (the "**Inferred Works**"). The performance and completion of the Inferred Works shall be the responsibility of the Manufacturer and the Inferred Works shall be deemed to be part of the Manufacturer's Obligations as if performance of such work were expressly mentioned in this Contract.

(c) The Manufacturer shall be responsible for the Manufacturer's Obligations, which shall be performed so as to meet the Applicable Standards. The Manufacturer is responsible for ensuring that the Manufacturer's Obligations are Fit for Purpose.

(d) The Manufacturer has participated in the preparation of and scrutinized, prior to the Effective Date, the requirements in this Contract and the Procuring Agency's Requirements. The Manufacturer shall be responsible for the accuracy of the Procuring Agency's Requirements.

(e) Any data or information received by the Manufacturer, from the Procuring Agency or otherwise, shall not relieve the Manufacturer from its responsibility for the execution of the Manufacturer's Obligations and shall not result in any increase in the Supply Price.

(f) The Procuring Agency shall not be responsible for any error, inaccuracy, or omission of any kind in the Procuring Agency's Requirements as originally included in this Contract and shall not be deemed to have given any representation of accuracy or completeness of any data or information. Any data or information received by the Manufacturer, from the Procuring Agency or otherwise, shall not relieve the Manufacturer from its responsibility for the execution of the Manufacturer's Obligations nor shall it result in any increase in the Supply Price.

(g) The Manufacturer shall comply with all Environmental and Social Standards as applicable in its jurisdiction and applicable to the execution of the Manufacturer's Obligations.

(h) The Manufacturer shall provide its annual audited accounts within five (5) months after the end of each financial year of the Manufacturer and half-yearly management accounts within two (2) months of the end of each half year.

(i) The Manufacturer shall supply the Goods and provide the Manufacturer's Documents specified in this Contract and other things and services, whether of a temporary or permanent nature, required in and for the supply, performance and completion of the Manufacturer's Obligations and remedying of defects relating to this Contract and the Manufacturer's Obligations.

(j) The Procuring Agency's Requirements shall be deemed to include all specifications relating to the Goods that are necessary to satisfy the

Procuring Agency's Requirements as per scope, or implied by this Contract or specifications which (although not mentioned in this Contract) are necessary for stability or safe and proper operation, of the Buses and to ensure that the Manufacturer's Obligations meet the Applicable Standards and are Fit for Purpose.

(k) The Manufacturer shall be responsible for the adequacy, stability, and safety of all the Manufacturer's Obligations.

(l) The Manufacturer shall, whenever required by the Procuring Agency, submit details of the arrangements and methods which the Manufacturer proposes to adopt in carrying out the Manufacturer's Obligations. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Procuring Agency.

(m) The Manufacturer shall indemnify and hold the Procuring Agency harmless against any claims, costs, expenses, proceedings and/or losses in connection with or related to the breach of any of the Applicable Laws and/or any claims by any Relevant Authority or any other relevant authority outside Pakistan in relation to any of the foregoing.

4.2 Not Used

4.3 Authorized Representative

(a) The Manufacturer shall appoint an individual listed in **SCHEDULE 4 – PROCURING AGENCY'S REQUIREMENTS** as the Manufacturer's authorized representative (the "**Manufacturer's Authorized Representative**"), to act on behalf of the Manufacturer as Authorized Representative under the Contract. The Manufacturer gives the Authorized Representative all authority necessary to act on the Manufacturer's behalf under this Contract.

(b) The Manufacturer's Authorized Representative shall be an experienced and capable person and a full-time employee of the Manufacturer dedicated to directing the execution of the Supply Obligations and shall be at all times available.

(c) The Manufacturer shall not, revoke the appointment of the Manufacturer's Authorized Representative or appoint a replacement, without thirty (30) day prior written notice, however, the replaced Authorized Representative shall be of the same or more similar caliber, expertise and experience.

(d) The Manufacturer's Authorized Representative shall, on behalf of the

Manufacturer, receive instructions under Clause 3.2 (*Instructions*).

(e) The Manufacturer's Authorized Representative may delegate any power, function and authority to any competent designated person, and may at any time revoke the delegation with prior permission of the Procuring Agency. Any delegation or revocation shall not take effect until the Procuring Agency has received prior notice signed by the Manufacturer's Authorized Representative, naming the person and specifying the powers, functions and authority being delegated or revoked, and consent has been granted by the Procuring Agency accordingly.

(f) The Manufacturer's Authorized Representative and all these persons shall be fluent in the language for communications defined in Clause 1.4 (*Law and Language*).

4.4 Local Authorized Dealer

(g) The Local Authorized Dealer (the "**Local Authorized Dealer**") in Pakistan shall be permanently deployed till the issuance of the Final Release Certificate.

(a) The Manufacturer shall delegate to the Local Authorized Dealer, in full or in part, any portion of the Services.

(b) The Manufacturer shall be responsible for observance by the Local Authorized Dealer of (as may be applicable or necessary) all the provisions of this Contract. The Manufacturer shall be responsible for the acts or defaults of the Local Authorized Dealer as fully as if they were the acts or defaults of the Manufacturer. Any delegation to the Local Authorized Dealer by the Manufacturer of any portion of the Services shall not release or discharge the Manufacturer of any of its responsibilities or obligations under this Contract.

(c) The Manufacturer shall not, for the duration of this Contract, revoke the appointment of the Local Authorized Dealer or appoint a replacement, without the prior written consent of the Procuring Agency.

(d) The Local Authorized Dealer shall, on behalf of the Manufacturer, receive instructions under Clause 3.2 (*Instructions*).

(e) The Local Authorized Dealer may not delegate any powers, functions and authority to any person, without the prior written consent of the procuring agency.

(f) The Local Authorized Dealer shall be fluent in the language for

communications defined in Clause 1.4 (*Law and Language*).

4.5 Sub-Supplier and Vendors

(a) The Manufacturer shall not subcontract the whole of the Manufacturer's Obligations. Unless otherwise stated in this Contract:

(i) the Manufacturer shall be required to obtain consent for the performance of part of the Manufacturer's Obligations by the Sub-suppliers (as applicable) if the Manufacturer proposes any change to a Sub-supplier specified in this Contract or in **SCHEDULE 10 – LIST OF SUB-SUPPLIERS**, the Procuring Agency's consent shall be required and it shall be the sole judgment of the Procuring Agency's Representative to approve or reject the proposed Sub-supplier.

(ii) in relation to (i) above, while appointing any Sub-supplier by the Manufacturer, the Manufacturer shall notify the Procuring Agency's Representative fifteen (15) days in advance and in case the Procuring Agency has any reservation regarding such Sub-supplier, it shall inform the Manufacturer.

(b) The Manufacturer shall be responsible for observance by all Sub-suppliers of all the provisions of this Contract. The Manufacturer shall be responsible for the acts or defaults of any Sub-supplier, his agents or employees, as fully as if they were the acts or defaults of the Manufacturer, his agents or employees. Any subcontracting by the Manufacturer of any portion of the Manufacturer's Obligations shall not release or discharge the Manufacturer of any of its responsibilities or obligations under this Contract. Any Sub-supplier warranties extending beyond the Warranty Period (or any longer applicable period agreed to by the Manufacturer) shall automatically be assigned to the Procuring Agency. The Manufacturer shall ensure that all subcontract agreements and purchase orders contain a provision, providing for assignment of such subcontracts or purchase orders to the Procuring Agency in the event of termination of the Manufacturer's employment pursuant to the terms of Clause 12.1 (*Termination by Procuring Agency*). Such assignment will be at the discretion of the Procuring Agency, in accordance with the terms of Clause 1.6 (*Assignment*), and at no cost to the Procuring Agency.

(c) In the event a Sub-supplier has undertaken a continuing and assignable obligation to the Manufacturer for any Manufacturer's Obligations performed by such Sub-supplier, and in the event such obligation extends beyond the expiry of the Warranty Period, the

Manufacturer, upon the expiry of the Warranty Period, shall be deemed to have transferred the benefit of such Sub-supplier's obligation to the Procuring Agency for its unexpired duration. The Manufacturer, in entering into any subcontracts, shall ensure that all such obligations are capable of being assigned to the Procuring Agency.

4.6 Quality Assurance

(a) The Manufacturer shall institute a quality assurance system to demonstrate compliance with the requirements of this Contract. The system shall be in accordance with the details stated in this Contract and shall:

(i) the demonstrate both recognition of the quality requirements of this Contract and an organized approach to satisfy these requirements including the Procuring Agency's Requirements;

(ii) provide that quality requirements are determined and satisfied throughout all phases of performance of the Manufacturer's Obligations as per the applicable standards including as applicable design, purchasing, assembly, inspection, testing, delivery, storage and systems checks;

(iii) provide for the early and prompt detection of actual or potential deficiencies including Defects or Deficiencies, trends or conditions which could result in unsatisfactory quality and for timely and effective corrective action.

(b) The Procuring Agency shall be entitled to audit any aspect of the system.

(c) Compliance with the quality assurance system shall not relieve the Manufacturer of any of its duties, obligations or responsibilities under this Contract.

4.7 Sufficiency of the Supply Price

(a) The Manufacturer shall be deemed to have satisfied itself as to the correctness and sufficiency of the Supply Price.

(b) Unless otherwise stated in this Contract, The Supply Price is a fully inclusive lump sum fixed price and covers all the Manufacturer's Obligations under this Contract and all things necessary for the proper execution and completion of the Manufacturer's Obligations and the remedying of any defects in connection with this Contract.

4.8 Unforeseeable Difficulties

Except as otherwise stated in this Contract:

(a) the Manufacturer shall be deemed to have obtained all necessary

information as to potential risks, contingencies and other circumstances which may influence or affect the Manufacturer's Obligations;

(b) by signing this Contract, the Manufacturer accepts total responsibility and risk for having foreseen all difficulties and costs of successfully completing the Manufacturer's Obligations; and

(c) the Supply Price shall not be adjusted to take account of any unforeseen difficulties or costs.

4.9 Transport of the Goods

(a) The Manufacturer shall give the Procuring Agency not less than twenty one (21) days' notice of the date on which the Goods will be exported to Pakistan.

(b) The Manufacturer shall be responsible for:

(i) transportation, usage, safe keeping and safe storage of the Goods and the exportation of the same from the country of its origin;

(ii) procuring all permits relating to the transportation of the Goods;

(iii) the payment of insurance costs, any shipment and transportation charges and costs for delivery of the Goods; and the port charges, and clearing charges (including custom clearance and port clearance) and costs (amounts payable to any clearing agents) and any fees, charges, expenses and costs of any nature whatsoever applicable on the Goods, in each case, applicable at the port of origin;

(iv) payment of all taxes and expenses of any nature whatsoever applicable on and relating to the Goods outside Pakistan; and

(v) any damage to the Goods due to reasons attributable to Manufacturer while in transit from ex-factory to Delivery Point.

(c) The Goods shall be delivered by the Manufacturer to the Delivery Point.

4.10 Progress Reports

(a) Monthly progress reports substantially in the form set forth in the Procuring Agency's Requirements (or such other form as may be agreed to by the Parties) shall be prepared by the Manufacturer and submitted to the Procuring Agency electronically (through email or

upload on a website) and in six (6) hard copies. The first report shall cover the period up to the end of the first calendar month following the Order Date. Reports shall be submitted monthly thereafter, each within seven (07) days after the last day of the period to which it relates. In addition, the Procuring Agency may, at its discretion and at no additional Cost, instruct the Manufacturer to submit daily or weekly progress reports in the form acceptable to the Procuring Agency and the same shall be submitted by the Manufacturer in one paper-original, one electronic copy and additional paper copies (if required by the Procuring Agency). Each daily report relating to a day shall be submitted within ten (10) hours of the end of such day. Each weekly report shall be submitted within two (2) days after the last day of the week to which it relates.

(b) Reporting shall continue until the Manufacturer has completed all the Manufacturer's Obligations.

(c) Each report shall include all matters required by the form set out in the Procuring Agency's Requirements (as revised by the Procuring Agency from time to time) and shall include:

(i) an executive summary showing the overall status of the Supply and areas of concern (if any) in relation to the performance of this Contract;

(ii) charts and detailed descriptions of progress, including each stage of Manufacturer's Documents, procurement and manufacture;

(iii) photographs showing the status of manufacture;

(iv) for the manufacture of each main item of the Goods, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of:

(A) commencement of manufacture,

(B) Manufacturer's inspections,

(C) tests, and

(D) shipment;

(v) copies of quality assurance documents, test results and certificates of Goods;

(vi) list of Variations, notices given under Clause 2.2 (Procuring Agency's Claims) and notices given under Clause 17.1 (*Manufacturer's Claims*);

(vii) comparisons of actual and planned progress (including a list of completed Payment Milestones and anticipated dates for the remaining Payment Milestones), with details of any events or circumstances which may jeopardize the completion in accordance with this Contract, and the measures being (or to be) adopted to overcome delays;

(viii) The Manufacturer shall comply with all the provisions of the Procuring Agency's Requirements and this Contract in preparation of reports pursuant to this Clause 4.10 (*Progress Reports*); and

(ix) any further information specified in the Procuring Agency's Requirements.

4.11 Failure to Submit Reports

(a) Any failure by the Manufacturer to timely submit any reports, information or certifications required by this Contract or any failure by the Manufacturer to ensure that the documents are up-to-date and adequately secured, shall, in addition to any rights and remedies available to the Procuring Agency under law, give the Procuring Agency the right to delay reciprocal action for which such information is provided, or the date or event in connection with which the information is provided, for a period equal to any such delay by the Manufacturer. Any such delay by the Procuring Agency shall not affect or extend the relevant Scheduled Delivery Date.

4.12 Manufacturer Representations

(a) The Manufacturer represents and warrants to the Procuring Agency that:

(i) the Manufacturer is duly incorporated, existing and in good standing under the laws of the Manufacturer's country and has all requisite power and authority to conduct its business and to execute, to deliver and to perform its obligations under this Contract;

(ii) there are no proceedings pending, or to the best of its knowledge, threatened for the liquidation of the Manufacturer or that could materially adversely affect the performance by the Manufacturer of its obligations under this Contract;

(iii) this Contract has been duly authorized, executed and delivered by it and constitutes the legal, valid and binding obligation of it;

(iv) the execution and delivery of, and performance of its obligations under this Contract by the Manufacturer does not and, will not constitute a violation of any statute, judgment, order, decree or regulation or rule of any court, governmental authority or arbitrator of competent jurisdiction applicable or relating to it, its assets or its businesses; and

(v) it has adequate expertise and personnel to comply with its obligations under this Contract.

(b) The Manufacturer in relation to the Local Authorized Dealer represents and warrants to the Procuring Agency that:

(i) the Local Authorized Dealer is duly incorporated, existing and in good standing under the laws of Pakistan and has all requisite power and authority to conduct its business and to perform any obligations that may be delegated to it under Clause 4.4 (*Local Authorized Dealer*);

(ii) there are no proceedings pending, or to the best of its knowledge, threatened for the liquidation of the Local Authorized Dealer or that could materially adversely affect the performance by the Local Authorized Dealer of any obligations that may be delegated to it under Clause 4.4 *(Local Authorized Dealer)*;

(iii) the performance of any obligations that may be delegated to the Local Authorized Dealer under Clause 4.4 (*Local Authorized Dealer*) will not constitute a violation of any statute, judgment, order, decree, regulation or rule of any court, governmental authority or arbitrator of competent jurisdiction applicable or relating to it, its assets or its businesses; and

(iv) it has adequate expertise and personnel to comply with any obligations that may be delegated to the Local Authorized Dealer under Clause 4.4 (*Local Authorized Dealer*).

4.13 Packing and Marking

(a) The packing and delivery of the Goods shall be made by the Manufacturer as is required to prevent damage and/or

deterioration of the Goods during transit and transportation. Packing of the Goods shall be appropriate for the relevant transportation mode (including waterproof, moisture proof and anticorrosion treatment) in order to withstand, without limitation, rough handling during transit and exposure to extreme temperature, salt and precipitation during transit and open-air storage.

(b) Marking of all the Goods shall be done on the basis of and in accordance with the marking system to be approved by the Procuring Agency. The relevant item number and the order number shall be stated in all future correspondence in connection with each document, together with the relevant marking.

(c) Markings of all the Goods, as approved by the Procuring Agency, shall be consistently used in all documentation to be delivered by the Manufacturer, such as (where applicable) operation instructions, lists of wear and tear parts and drawings etc.

(d) All the Goods and all parts and components inventory thereof shall be furnished with fixed plates with an appropriate identification system, as approved by the Procuring Agency, in the English language.

5. Manufacturer's Further Obligations

5.1 Care and Supply of Documents

(a) Each of the Manufacturer's Documents shall be in the custody and care of the Manufacturer, unless and until taken over by the Procuring Agency. Unless otherwise stated in this Contract, the Manufacturer shall supply to the Procuring Agency six (6) copies of each of the Manufacturer's Documents within **twenty-one (21) days** of the Approved Final Bus Design being approved by the Procuring Agency.

(b) The Manufacturer shall deliver to the Procuring Agency a copy of all publications referenced in the Procuring Agency's Requirements, the Manufacturer's Documents, and Variations and shall maintain other communications given under this Contract.

(c) If a Party becomes aware of an error or defect of a technical nature in a document which was prepared for use under this Contract, the Party shall promptly give notice to the other Party of such error or defect. Such error or defect shall be rectified and revised document would be communicated within a period of 10 days from the date of

issuance of the notice.

5.2 Manufacturer's Documents

(a) The Manufacturer's Documents shall comprise the technical documents specified in the Procuring Agency's Requirements, documents required to satisfy all regulatory approvals, and Clause 5.5 (*Operation and Maintenance Manuals*).

(b) The Manufacturer shall prepare Manufacturer's Documents (including any other documents necessary to instruct the Manufacturer's Personnel), in English and in sufficient detail to satisfy all Standards and allow the Procuring Agency to operate and maintain the Buses for the Project.

(c) If the Procuring Agency's Requirements describe the Manufacturer's Documents which are to be submitted to the Procuring Agency for review, they shall be submitted accordingly, together with a notice as described below. In the following provisions of this Clause:

(i) "review period" means the period required by the Procuring Agency for review; and

(ii) "Manufacturer's Documents" exclude any documents which are specified as not being required to be submitted for review.

(d) Unless otherwise stated in this Contract or the Procuring Agency's Requirements, each review period shall not exceed fifteen (15) days, calculated from the date on which the Procuring Agency receives the Manufacturer's Document and the Manufacturer's notice. This notice shall state that the Manufacturer's Document is considered ready, both for review in accordance with this Clause and for use. The notice shall also state that the Manufacturer's Document complies with this Contract, or the extent to which it does not comply.

(e) Not Used.

(f) The Procuring Agency may, within the review period, give notice to the Manufacturer that a Manufacturer's Document fails (to the extent stated) to comply with this Contract. If a Manufacturer's Document so fails to comply, it shall be rectified, resubmitted in a complete form as per the requirements of the Procuring Agency (as applicable) and reviewed in accordance with this Clause, at the Manufacturer's cost. In case of any resubmission, the review by the Procuring Agency shall be completed within seven (07) days and thereafter all reviews of any subsequent resubmissions shall be

completed by the Procuring Agency within seven (07) days.

(g) For each part of the Supply, and except to the extent that the Parties otherwise agree:

(i) execution of such part of the Manufacturer's Obligations shall not commence prior to the expiry of the review periods for all the Manufacturer's Documents which are relevant to its execution;

(ii) execution of such part of the Manufacturer's Obligations shall be in accordance with these Manufacturer's Documents, as submitted for review; and

(iii) if the Manufacturer wishes to modify any document which has previously been submitted for review, the Manufacturer shall immediately give notice to the Procuring Agency. Thereafter, the Manufacturer shall submit revised documents to the Procuring Agency in accordance with the above procedure.

(h) Any such agreement (under paragraph (g) above) or any review (under this Clause or otherwise) shall not relieve the Manufacturer from any obligation or responsibility.

5.3 Manufacturer's Undertaking

(a) The Manufacturer undertakes that the Manufacturer's Documents, the execution and the completed Manufacturer's Obligations will be in accordance with:

(i) the Applicable Standards;

(ii) the documents forming this Contract, as altered or modified by Variations; and

(iii) the plans and specifications and accompanying data submitted to the Procuring Agency pursuant to this Contract and/or enclosed in **SCHEDULE 4 – PROCURING AGENCY'S REQUIREMENTS**.

(b) The Manufacturer covenants that:

(i) it shall supply the Goods (including any items supplied for remedying of Defect or Deficiencies and Serial Defects) that are brand new, unused, Fit for Purpose, whitelisted from Pakistan Telecommunication Authority and other regulatory agencies and, in all material respects, in accordance with

sound engineering practices and Applicable Standards; and

(ii) shall be, in accordance in all material respects with sound engineering practices and Prudent Practices; and

(iii) that the completed Manufacturer's Obligations shall be capable of meeting the operational standards of the Procuring Agency and requirements of the Applicable Standards.

(c) The Manufacturer shall ensure that all consents, orders, authorizations, waivers, approvals, and any other actions, registrations, declarations, or filings with, any person, board, or body, public or private, that are required to be obtained by the Manufacturer in connection with the execution, delivery or performance of this Contract, or the consummation of the transactions contemplated hereunder and thereunder have been obtained or, solely with respect to consents, orders, authorizations, waivers, approvals, and any other actions, or registrations, declarations or filings required for the performance hereunder and thereunder will be obtained as and when required by Applicable Laws (including Laws).

5.4 Technical Standards and Regulations

The Manufacturer's Documents, the execution, and the completion of Manufacturer's Obligations shall comply with and be in accordance with Applicable Standards, standards for environmental Laws, Laws from the country of origin of the Goods, the Consents, the Environmental and Social Standards and other standards specified in the Procuring Agency's Requirements, applicable to the Manufacturer's Obligations, or defined by the Applicable Laws (including Laws).

5.5 Operations and Maintenance Manual

(a) Within **thirty (30) days** of the Approved Final Bus Design being approved by the Procuring Agency, the Manufacturer shall provide to the Procuring Agency provisional operation and maintenance manuals in sufficient detail for the Procuring Agency to operate, maintain, dismantle, reassemble, adjust and repair the Buses.

(b) The Manufacturer's Obligations shall not be considered to be completed for the purposes of the Delivery Completion Certificate until the Procuring Agency has received final operation and maintenance manuals in such detail, and any other manuals specified in the Procuring Agency's Requirements for these purposes.

5.6 Errors in Manufacturer's Documents

If errors, omissions, ambiguities, inconsistencies, inadequacies or other defects are found in the Manufacturer's Documents, they and the Manufacturer's Obligations shall be corrected at the Manufacturer's cost, notwithstanding any consent or approval previously granted under this

Contract.

5.7 Procuring Agency's use of Manufacturer's Documents

(a) As between the Parties, the Manufacturer shall retain the copyright and other intellectual property rights in the Manufacturer's Documents made by (or on behalf of) the Manufacturer.

(b) The Manufacturer shall be deemed (by signing this Contract) to give to the Procuring Agency a non-terminable transferable non-exclusive royalty-free licence to use the Manufacturer's and Sub-supplier' technology and know-how (including the use of the Goods) to copy, use and communicate the Manufacturer's Documents, including making and using modifications of them. This licence shall:

(i) apply throughout the actual or intended working life (whichever is longer) of the Goods and authorize the Procuring Agency, as applicable, rights to use relevant patents, licenses and all such other similar rights which are required for operating, completing, maintaining, altering, adjusting, financing and repairing the relevant parts of the Buses;

(ii) entitle any person in proper possession of the Goods to copy, use and communicate the Manufacturer's Documents for the purposes of operating, maintaining, altering, adjusting and repairing the Buses;

(iii) in the case of Manufacturer's Documents which are in the form of computer programs and other software, permit their use on any computer and other places as envisaged by this Contract, including replacements of any computers supplied by the Manufacturer; and

(iv) continue to be in full force and effect notwithstanding cancellation or termination of this Contract for whatever reason.

5.8 Manufacturer's use of Procuring Agency's Documents

(a) As between the Parties, the Procuring Agency shall retain the copyright and other intellectual property rights in the Procuring Agency's Requirements and other documents made by (or on behalf of) the Procuring Agency. The Manufacturer may, at its cost, copy, use, and obtain communication of these documents for the purposes of this Contract.

(b) Such documents shall not, without the Procuring Agency's consent, be copied, used, or communicated to a third party by the

Manufacturer, except as necessary for the purposes of this Contract.

5.9 Supply of Spare Parts

(a) The Manufacturer shall be (as part of the overall Manufacturer's Obligations) responsible for the Supply and delivery to the Delivery Point of the Spare Parts. The Manufacturer shall be responsible to ensure that all such Spare Parts are Fit for Purpose and comply with the requirements of this Contract.

(b) The Spare Parts shall be delivered in accordance with the delivery schedule set out in the Schedule of Delivery.

(c) Within **thirty (30) days** (or such other number of days agreed between the Parties) from use of any Spare Parts, the Manufacturer shall replenish such Spare Parts used and consumed until the issuance of the Release Certificate. The Manufacturer shall replenish and deliver to the Delivery Point such Spare Parts used at its own cost and expense.

(d) The Manufacturer shall have care, custody and control of, and shall bear the risk of physical loss and/or damage with respect to the Spare Parts delivered to the Delivery Point until the Release Date.

5.10 Training Programme

(a) The Manufacturer shall within a maximum of six (06) months following issuance of the Notice to Proceed submit its Training Programme to the Procuring Agency for approval.

(b) Within fifteen (15) days of receipt, the Procuring Agency shall review the Training Programme and shall either:

(i) approve the Training Programme (the "**Approved Training Programme**"); or

(ii) reject the Training Programme and convey its comments/observations (if any) to the Manufacturer.

(c) In the event no approval or objections to the Training Programme is provided in accordance with Clause 5.10(b), the Training Programme shall not be deemed to be approved by the Procuring Agency.

(d) The Manufacturer shall promptly (at its own cost and expense) re-submit the revised Training Programme, no later than ten (10) days from receipt of the aforesaid observations under Clause 5.10(b)(ii), and the approval process under this Clause 5.10 (*Training Programme*) shall be repeated.

(e) The Parties agree that the approval of the Training Programme by the Procuring Agency shall not in any way relieve the Manufacturer

of any liabilities arising from the Training Programme or from the Manufacturer's Obligations under this Contract.

(f) The Manufacturer shall carry out training of Procuring Agency's Personnel in accordance with the Training Programme approved under this Clause 5.10 (*Training Programme*). Training is to be provided as part of the Manufacturer's Obligations under this Contract and the Manufacturer's Obligations shall not be considered completed for the purposes of issuance of the Release Certificate until this training has been completed.

5.11 Operator

The Manufacturer shall be obligated to cater for all requirements for the performance of supply and Manufacturer's Obligations so that the operator(s) of the Project inherits the Project that is Fit for Purpose and so that the Procuring Agency is able to meet its obligations under the operator contract and the operator(s) is in no way prevented or relieved from performance or compliance with any of its obligations and standards under the operator contract.

6. Execution and Workmanship

6.1 Manner and Execution

The Manufacturer shall carry out the design, production and manufacture of the Buses:

(a) in the manner specified in this Contract;

(b) in a proper workmanlike and careful manner, and in accordance with the Prudent Practices; and

(c) with properly equipped facilities and non-hazardous materials.

6.2 Concept Bus Design

(a) The Manufacturer shall within **fifteen (15) days** of issuance of the Notice to Proceed submit its concept design for the Buses (prepared in accordance with the Applicable Standards) to the Procuring Agency for approval ("**Concept Bus Design**").

(b) Within **fifteen (15) days** of receipt, the Procuring Agency shall review the Concept Bus Design and shall either:

(i) approve the Concept Bus Design (the "**Approved Concept Bus Design**"); or

(ii) reject the Concept Bus Design and convey its comments/observations (if any) to the Manufacturer.

(c) In the event no approval or objections to the Concept Bus Design is granted in accordance with Clause 6.2(b), the Concept Bus Design

shall be deemed to be approved by the Procuring Agency.

(d) The Manufacturer shall promptly (at its own cost and expense) re-submit the revised Concept Bus Design, no later than ten (10) days from receipt of the aforesaid observations under Clause 6.2(b)(ii), and the approval process under this Clause 6.2 *(Concept Bus Design)* shall be repeated.

6.3 Detailed Bus Design

(a) The Manufacturer shall within **fifteen (15) days** of the Approved Concept Bus Design being approved by the Procuring Agency, submit its detailed design for the Bus (prepared in accordance with the Applicable Standards) to the Procuring Agency for approval ("**Detailed Bus Design**").

(b) Within **fifteen (15) days** of receipt, the Procuring Agency shall review the Detailed Bus Design and shall either:

(i) approve the Detailed Bus Design (the "**Approved Detailed Bus Design**"); or

(ii) reject the Detailed Bus Design and convey its comments/observations (if any) to the Manufacturer.

(c) In the event no approval or objections to the Detailed Bus Design is granted in accordance with Clause 6.3(b), the Detailed Bus Design shall be deemed to be approved by the Procuring Agency.

(d) The Manufacturer shall promptly (at its own cost and expense) re-submit the revised Detailed Bus Design, no later than **seven (07) days** from receipt of the aforesaid observations under Clause 6.3(b)(ii), and the approval process under this Clause 6.3 *(Detailed Bus Design)* shall be repeated.

6.4 Prototype Tests

(a) Within **sixty (60) days** of the Approved Detailed Bus Design being approved by the Procuring Agency, the Manufacturer shall:

(i) manufacture a prototype bus based on such Approved Detailed Bus Design (the "**Prototype Bus**"); and

(ii) carry out the Prototype Tests on such Prototype Bus at the Test Location.

(b) The Manufacturer shall provide all documentation and other information necessary for Prototype Tests and such assistance, driving tracks, labor, materials, stores, apparatus and instruments at the Test Location as are necessary to carry out such Prototype Tests efficiently.

(c) The Manufacturer shall give the Independent Expert and the Procuring Agency's Representatives **two (2) weeks'** preliminary notice of the time and Test Location for the testing of the Prototype Bus. The Independent Expert and the Procuring Agency's Representatives along with of the Procuring Agency's Engineer shall be entitled to be present at the aforementioned Test Location for testing of the Prototype Bus.

(d) Following successful completion of the Prototype Tests by the Manufacturer and issuance of the Independent Expert report on completion of the Prototype Tests, a certificate shall be issued by the Procuring Agency certifying the successful completion of the Prototype Tests ("**Prototype Tests Acceptance Certificate**"). It is hereby clarified that the Prototype Tests Acceptance Certificate shall only be considered issued for purposes of this Contract after being countersigned by the Independent Expert.

(e) If while testing, the Prototype Bus or part thereof is found to be defective or otherwise not in accordance with this Contract, the Procuring Agency may reject the Prototype Bus by giving notice to the Manufacturer, with reasons. The Manufacturer shall then promptly and in any case within **ten (10) days** (or otherwise agreed with the Procuring Agency) make good the defects and ensure that the rejected item complies with this Contract. Any such defects shall be remedied by the Manufacturer, at its sole cost and risk, without any extension to the timelines set out in the Schedule of Delivery.

(f) If the Procuring Agency requires the Prototype Bus to be retested, the tests shall be repeated under the same terms and conditions.

(g) The Manufacturer shall bear all fees, costs and expenses incurred (whether inside or outside Pakistan) for the purposes of attendance by Procuring Agency's Representatives (not exceeding a team of nine (09) persons) of the Prototype Tests. All living, transport expenses, subsistence allowances and medical insurance of the Procuring Agency's Representatives shall be covered by the Manufacturer including (where Test Location is outside Pakistan) round trip economy air tickets to and from Pakistan. The Manufacturer shall facilitate the issuance and affixation of visas of the Procuring Agency's Representatives.

(h) The Manufacturer shall also forward to the Procuring Agency's Representative duly certified reports of the Prototype Tests and copies of the data upon which the reports were based.

(i) During the Prototype Tests, the Procuring Agency's Representative's

presence, inspection, examination, approval or similar act by the Procuring Agency's Representative (including the absence of disapproval) shall not relieve the Manufacturer from any of its duties, responsibilities or obligations under this Contract.

(j) Following issuance of the Prototype Tests Acceptance Certificate in respect thereof the Prototype Bus shall be delivered to the Delivery Point as part of the Batch of Goods and shall form part of the fleet being procured for the Project.

6.5 Final Bus Design

(a) The Manufacturer shall within **fifteen (15) days** of issuance of the Prototype Tests Acceptance Certificate, submit its final detailed design for the bus to the Procuring Agency for approval ("**Final Bus Design**").

(b) Within fifteen (15) days of receipt, the Procuring Agency shall review the Final Bus Design and shall either:

(i) approve the Final Bus Design (the "**Approved Final Bus Design**");

(ii) reject the Final Bus Design and convey its comments/observations (if any) to the Manufacturer.

(c) In the event no approval or objections to the Final Bus Design is granted in accordance with Clause 6.5(b), the Final Bus Design shall be deemed to be approved by the Procuring Agency.

(d) The Manufacturer shall promptly (at its own cost and expense) re-submit the revised Final Bus Design, no later than **seven (07) days** from receipt of the aforesaid observations under Clause 6.5(b)(ii), and the approval process under this Clause 6.5 *(Final Bus Design)* shall be repeated.

6.6 Manufacturer of Buses

(a) Following issuance of the Approved Final Bus Design, the Procuring Agency shall submit an order for the Production Buses not exceeding **ten (10) days** and not less than **one (1) day** (the "**Order**") on the order date (the "**Order Date**") to the Manufacturer to commence manufacturing of the Production Buses in accordance with the Approved Final Bus Design. The Manufacturer shall ensure that the manufacturing of the Production Buses is in accordance with the Programme to ensure delivery by the Scheduled Delivery Date.

(b) On the Order Date the Supply Price shall be as follows:

(i) The Supply Price for Goods shall be equal to lump sum

financial proposal for the actual number of Production Buses stated in the Order plus the Prototype Bus; plus price of the set of tools and diagnostic equipment stated in the Bid, slow chargers and fast chargers and spare parts, as per tender documents' scope; and

(ii) The Supply Price for Services shall be as per financial proposal in respect of maintenance supervision of Buses for One (01) year + training of drivers/maintenance programme for the actual number of the Production Buses stated in the Order including the Prototype Bus, as per tender documents' scope.

(c) The Procuring Agency's Personnel shall at all reasonable times:

(i) have full access to all places where the Buses are being manufactured; and

(ii) during design, production and manufacture be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of the production and manufacture of the Buses.

(iii) The Manufacturer shall give the Procuring Agency's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Manufacturer from any obligation or responsibility.

6.7 Ownership of Goods

All Goods shall be imported in the name of the Procuring Agency. Each of the Goods shall, to the extent consistent with the Laws of Pakistan, become the property of the Procuring Agency upon the issuance of certificate of compliance.

(a) On the Order Date the Supply Price shall be as follows:

(i) The Supply Price for Goods shall be equal to lump sum financial proposal for the actual number of Production Buses stated in the Order plus the Prototype Bus; plus price of the set of tools and diagnostic equipment stated in the Bid, slow chargers and fast chargers and spare parts, as per tender documents' scope; and

(ii) The Supply Price for Services shall be as per financial proposal in respect of maintenance supervision of Buses for One (01) year + training of drivers/maintenance programme for the actual number of the Production Buses stated in the Order

including the Prototype Bus, as per tender documents' scope.

(b) The Procuring Agency's Personnel shall at all reasonable times:

(i) have full access to all places where the Buses are being manufactured; and

(ii) during design, production and manufacture be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of the production and manufacture of the Buses.

(iii) The Manufacturer shall give the Procuring Agency's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Manufacturer from any obligation or responsibility.

6.8 Inspection and Issuance of Certificate of Compliance

(a) Upon delivery of the Batch of Goods at the Delivery Point, the Procuring Agency shall inspect such shipment of the Batch of Goods including:

(i) Prototype Bus, to ensure that the bus being delivered is the same in respect of which the Prototype Tests Acceptance Certificate has been issued;

(ii) Production Buses, to ensure that each bus conforms with the Approved Final Bus Design;

(iii) Spare Parts, to ensure that the Spare Parts meet the Applicable Standards;

(iv) set of tools and diagnostic equipment, to ensure that the tools and diagnostic equipment meets the Applicable Standards; and

(b) Following inspection of the Batch of Goods, the Procuring Agency shall either:

(i) issue certificate of compliance in respect of the entire Batch of Goods delivered, verifying that each of the Goods is in compliance with the requirements or standards prescribed under this Contract including as specified under Clause 6.8(a) (the "**Certificate of Compliance**"); or

(ii) issue certificate of rejection in respect of the entire Batch of

Goods delivered, if the Procuring Agency determines (along with providing the reasons for rejection) that any of the Goods in the relevant Batch of Goods is found to have any Defect or Deficiencies ("**Defective Goods**") (the "**Certificate of Rejection**").

(c) In the event of issuance of a Certificate of Rejection, the Manufacturer shall remedy, replace, modify or make good any Defect or Deficiencies in the Defective Goods within thirty (30) days (or such other number of days agreed between the Parties). Thereafter, the inspection procedure set out in this Clause 6.8 (Inspection and Issuance of Certificate of Compliance) shall be repeated for the Defective Goods and the Certificate of Compliance shall be issued once all Goods in a Batch of Goods are accepted in accordance with Clause 6.8(b)(i).

(d) Any Defect or Deficiencies in the Defective Goods shall be remedied by the Manufacturer, at its sole cost and risk, without any extension for delay in achieving the Delivery Date on or before the corresponding Scheduled Delivery Date.

6.9 Inspection and Issuance of IE Certificate of Compliance

(a) Prior to dispatch of Batch of Goods, the Independent Expert shall inspect such shipment of the Batch of Goods including: (i) Production Buses, to ensure that each Bus conforms with the Approved Final Bus Design; (ii) Spare Parts, to ensure that the Spare Parts meet the Applicable Standards; and (iii) set of tools and diagnostic equipment, to ensure that the tools and diagnostic equipment meets the Applicable Standards.

(b) Following inspection of each Batch of Goods, the Independent Expert shall either:

(i) issue certificate of compliance in respect of the entire Batch of Goods delivered, verifying that each of the Goods is in compliance with the requirements or standards prescribed under this Contract including as specified under Clause 6.9(a) (the "**IE Certificate of Compliance**"); or

(ii) issue certificate of rejection in respect of the entire Batch of Goods delivered, if the Independent Expert determines (along with providing the reasons for rejection) that any of the Goods in the relevant Batch of Goods is found to have any Defect or Deficiencies ("**Non-Compliant Goods**") (the "**IE Certificate of Rejection**").

(c) In the event of issuance of an IE Certificate of Rejection, the Manufacturer shall remedy, replace, modify or make good any Defect or Deficiencies in the Non-Compliant Goods within fourteen (14) days (or such other number of days agreed between the Parties). Thereafter, the inspection procedure set out in this Clause 6.9 (IE Inspection and Issuance of Certificate of Compliance) shall be repeated for the Non-Compliant Goods and the IE Certificate of Compliance shall be issued once all Goods in a Batch of Goods are accepted in accordance with Clause 6.9(b)(i).

(d) Any Defect or Deficiencies in the Non-Compliant Goods shall be remedied by the Manufacturer, at its sole cost and risk, without any extension for delay in achieving: (A) the Delivery Date on or before the corresponding Scheduled Delivery Date; and (B) the Delivery Completion Date on or before the Scheduled Delivery Completion Date.

7. Commencement, Delays and Suspension

7.1 Commencement of Manufacturer's Obligations

(a) The Procuring Agency may issue the Notice to Proceed, in its sole and absolute discretion, at any time on or prior to the Long Stop Date.

(b) The Procuring Agency may issue the Notice to Proceed, in its sole and absolute discretion, at any time on or prior to the Long Stop Date and the Order Date shall occur on or following the date on which the last of the following conditions has been fulfilled (or waived or deferred (with or without conditions) by the Procuring Agency in the case of sub-Clauses (a) and (b) below, or waived or deferred (with or without conditions) by the Manufacturer in case of sub-Clause (c) below), as notified by the Procuring Agency:

(i) receipt by the Procuring Agency of the Performance Guarantee;

(ii) receipt by the Procuring Agency of the Advance Payment Guarantee;

(iii) payment of the Advance Payment in terms of Clause 11.2 (Advance Payment) of this Contract;

(iv) issuance by the Procuring Agency of the Notice to Proceed to the Manufacturer; and

(v) receipt by the Procuring Agency of all regulatory and other approvals from the Relevant Authorities (including the State Bank of Pakistan) for making payment of the Advance Payment.

(c) If for reasons not attributable to the Manufacturer the Notice to Proceed is not issued within seven (07) days following the Long Stop Date then either Party shall have the right to terminate this Contract and neither Party shall be liable to the other in any respect (including in respect of Article 12 (*Termination by Procuring Agency*) and Article 13 (*Termination by Manufacturer*).

7.2 Scheduled Delivery Date

The Manufacturer shall ensure that:

(a) the delivery of the Goods is in accordance with the Schedule of Delivery; and

(b) the Batch of Goods are delivered on or before the Scheduled Delivery Date.

7.3 Programme

(a) The Manufacturer shall submit a time programme to the Procuring Agency within twenty-eight (28) days following the Order Date, which programme shall be finalised and re-submitted by the Manufacturer based on comments of the Procuring Agency within **thirty (30) days of the Order Date** and such resubmitted programme shall be deemed final upon approval of the Procuring Agency ("**Programme**"). The timelines stated in the Programme must comply with performance deadlines stated in this Contract. The Manufacturer shall also submit a revised Programme whenever the previous Programme is inconsistent with actual progress or with the Manufacturer's obligations and any such revised Programme shall be deemed to be the "Programme" for purposes of this Contract.

(b) The Programme shall be in sufficient detail and would include each part of the Manufacturer's Obligations including each stage of design, procurement, manufacture (including Prototype Tests), submission of Manufacturer's Documents, training and delivery, till the Release Date.

(c) Unless the Procuring Agency, within fourteen (14) days after receiving a Programme, gives notice to the Manufacturer stating the extent to which it does not comply with this Contract, the Manufacturer shall proceed in accordance with the Programme, subject to its other obligations under this Contract. The Procuring

Agency's Personnel shall be entitled to rely upon the Programme when planning their activities.

(d) The Manufacturer shall promptly give notice to the Procuring Agency of specific probable future events or circumstances which may adversely affect or delay the execution of the Manufacturer's Obligations. In this event, or if the Procuring Agency gives notice to the Manufacturer that a Programme fails (to the extent stated) to comply with this Contract or to be consistent with actual progress and the Manufacturer's stated intentions, the Manufacturer shall submit a revised Programme to the Procuring Agency in accordance with this Clause.

7.4 Extension of Scheduled Delivery Date

(a) The Manufacturer shall be entitled subject to Clause 17.1 (*Manufacturer's Claims*) to an extension of the Scheduled Delivery Date if the Manufacturing is or will be delayed by any of the following causes:

(i) a Variation (unless an adjustment to the Scheduled Delivery Date has been agreed under Clause 10.3 (*Variation Procedure*))

(ii) a cause of delay giving an entitlement to extension under Clause 7.8 (*Suspension*) subject to determination in terms of Clause 3.3 (*Determinations*);

provided, that the Manufacturer shall not be entitled to any extension in the Scheduled Delivery Date in respect of any period where the Manufacturer would have nevertheless experienced delays in any case for reasons not attributable to the Procuring Agency including for any of the events listed above.

(b) The Manufacturer shall not be entitled to any extension in respect of the Scheduled Delivery Date, other than as contemplated in this Clause 7.4(a).

(c) Any delay arising as a result of a Force Majeure Event shall be subject to the provisions of Clause 15 (*Force Majeure*) and not this Clause 7.4 (*Extension of Scheduled Delivery Date*).

(d) If the Manufacturer considers itself to be entitled to an extension of the Scheduled Delivery Date, the Manufacturer shall give notice to the Procuring Agency in accordance with Clause 17.1 (*Manufacturer's Claims*). When determining each extension of time

under Clause 17.1 (*Manufacturer's Claims*), the Procuring Agency shall review previous determinations and make a determination in terms of Clause 3.3 *(Determinations)*

7.5 Rate of Progress

(a) If, at any time:

(i) actual progress is too slow to complete the relevant Manufacturer's Obligations by the corresponding Scheduled Delivery Date; and/or

(ii) progress has fallen (or will fall) behind the current Programme under Clause 7.3 (*Programme*),

other than as a result of a cause for which an extension is permitted under Clause 7.4 *(Extension of Scheduled Delivery Date)*, then the Procuring Agency may instruct the Manufacturer to submit, under Clause 7.3 *(Programme)*, a revised Programme and supporting report describing the revised methods which the Manufacturer proposes to adopt in order to expedite progress and complete the relevant Manufacturer's Obligations by the Scheduled Delivery Date.

(b) Unless the Procuring Agency notifies otherwise, the Manufacturer shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of Manufacturer's Personnel, at the risk and cost of the Manufacturer. If these revised methods cause the Procuring Agency to incur additional costs, the Manufacturer shall subject to Clause 2.2 (*Procuring Agency's Claims*) pay these costs to the Procuring Agency, in addition to delay damages (if any) under Clause 7.6 (*Delay Damages*) below.

7.6 Delay Damages

(a) If the Manufacturer fails to comply with Clause 7.2 (*Scheduled Delivery Date*) along with any extension subject to Clause 7.4 (*Extension of Scheduled Delivery Date*), the Manufacturer shall pay delay damages in the amounts specified in sub-Clause 7.6(b) to the Procuring Agency for this default, such delay damages to be paid for every day or part thereof falling in Default Delay Period on the same mechanism as per details mentioned in clause 7.6 (g).

(b) For each day (or part thereof) of the Default Delay Period, the Manufacturer shall pay 0.1% of the Supply Price for Goods. The Procuring Agency shall not be restricted from invoicing for such claimable amounts after the Delivery Date.

(c) The total amount due under Clause 7.6 (*Delay Damages*) shall not exceed ten percent (10%) of the Supply Price.

(d) In the event the Delivery Date has not occurred within one hundred (100) days after the expiry of the corresponding Scheduled Delivery Date or the cap set out set out in Clause 7.6(c) has been exceeded, the Procuring Agency will have the right, *inter alia*, to terminate this Contract for Manufacturer's default.

(e) The amounts specified in sub-clause (b) above of this Clause have been calculated by the Parties as representing the actual daily loss to the Procuring Agency for each Default Delay Period, constitutes liquidated damages and are not a penalty. The Manufacturer hereby waives, any defense as to the validity and quantum of any liquidated damages in this Contract on the grounds that such liquidated damages are void as penalties or as not being reflective of the actual loss suffered by the Procuring Agency.

(f) These delay damages shall be the only damages due from the Manufacturer for such default, other than in the event of termination under Clause 12.1 *(Termination by Procuring Agency)* prior to completion of the Supply. Any payment of claim for delay damages shall not relieve the Manufacturer from its obligation to complete the Supply, or from any other duties, obligations or responsibilities which it may have under this Contract.

(g) At any time, from time to time, following the end of each month, the Procuring Agency shall compute and advise the Manufacturer in an invoice of the amount of delay damages due to the Procuring Agency pursuant to this Contract. The invoiced amounts shall be payable by the Manufacturer within twenty (20) days of the date of the delivery of such invoice to the Manufacturer. In the event of failure by the Manufacturer to pay the Procuring Agency the liquidated damages in terms of such invoice within the aforesaid twenty (20) day period, the Procuring Agency may, at its option, set off such liquidated damages against amounts to be paid to the Manufacturer and/or may recover such liquidated damages upon first demand by making a claim under the Performance Guarantee.

(h) If the Manufacturer fails to fulfils any of his obligations under Clause 9 (*Defect Liability*) beyond the period of thirty (30) days after communication of the defect by the procuring agency, an amount equivalent to 0.01% of the Supply Price for Goods per day of the delay shall be imposed as penalty.

7.7 Suspension of Manufacturer's Obligations

(a) The Procuring Agency may at any time instruct the Manufacturer to suspend progress of part or all of the Manufacturer's Obligations, provided that, in case of suspension of only part of the

Manufacturer's Obligations, the Manufacturer shall not be prevented from or hindered in continuing performance of the non-suspended parts of the Manufacturer's Obligations. During such suspension, the Manufacturer shall protect, store and secure such part of the Supply against any deterioration, loss or damage and shall:

(i) protect, secure and ensure the Supply affected;

(ii) place no further sub-contracts or purchase orders for the Supply with respect to those parts of the Manufacturer's Obligations suspended except to the extent expressly requested by the Procuring Agency; and

(iii) use all endeavours to suspend on the most favourable terms available to the Manufacturer all purchase orders and sub-contracts to the extent affected by such suspension and otherwise minimise the additional costs associated with such suspension.

(b) The Procuring Agency may also notify the cause for the suspension. If and to the extent that the cause is notified and is the responsibility and/or at the risk of the Manufacturer, the following Clauses 7.8 (Consequences of Suspension), and Clause 7.9 (Resumption of Manufacturer's Obligations) shall not apply.

7.8 Consequences of Suspension

(a) If the Manufacturer suffers delay from complying with the Procuring Agency's instructions under Clause 7.7 (Suspension of Manufacturer's Obligations) and/or from resuming the Manufacturer's Obligations, the Manufacturer shall give notice to the Procuring Agency and shall be entitled subject to Clause 17.1 (Manufacturer's Claims) to an extension of time for any such delay, if delivery is or will be delayed, under Clause 7.4 (Extension of Scheduled Delivery Date) and payment of any such Cost, which shall be added to the Supply Price.

(b) After receiving the notice from the Manufacturer in terms of (a) above, the Procuring Agency shall proceed in accordance with Clause 3.3 (*Determinations*) to agree or determine these matters.

(c) The Manufacturer shall not be entitled to an extension of time for, or to payment of any Cost incurred in any or more of the following cases:

(i) making good the consequences of the Manufacturer's faulty

workmanship or materials;

(ii) due to the Manufacturer's failure to protect, store, or secure the Supply in accordance with Clause 7.7 *(Suspension of Manufacturer's Obligations);*

(iii) if suspension is due to reasons attributable to the Manufacturer; or

(iv) to the extent that such delay and/or incurrence of Cost would have nevertheless been experienced by the Manufacturer had the Procuring Agency not suspended the Manufacturer's Obligations.

7.9 Resumption of Manufacturer's Obligations

(a) After the permission or instruction to proceed is given by the Procuring Agency, the Parties shall jointly examine the Manufacturer's Obligations affected by the suspension. The Manufacturer shall make good any deterioration or any Defects or Deficiencies in or loss of the Goods, which has occurred during the suspension.

(b) The Manufacturer shall continue to be responsible for the Manufacturer's Obligations during the period of suspension.

7.10 Payment for Manufacturer's Obligations in the Event of Suspension

The Manufacturer shall be entitled to payment of the value (as at the date of suspension) of Manufacturer's Obligations, if:

(a) the work on Manufacturer's Obligations or delivery of Buses has been suspended for more than ninety (90) days; and

(b) the Manufacturer has marked the Buses and notified as the Procuring Agency's property in accordance with the Procuring Agency's instructions.

7.11 Prolonged Suspension

If suspensions under Clause 7.7 (*Suspension of Manufacturer's Obligations*):

(a) have continued for more than one hundred and twenty (120) days in aggregate; and

(b) relate to the suspension of the entire Manufacturer's Obligations or result in the suspension of the entire outstanding Manufacturer's Obligations; and

(c) is not due to a cause or reason attributable to the Manufacturer,

then, the Manufacturer may, by notice to the Procuring Agency, requests

permission to proceed with the Manufacturer's Obligations. If permission is not granted within **twenty-eight (28) calendar days** of the Manufacturer's request being received by the Procuring Agency's Representative, the Manufacturer will be entitled to a Variation under Clause 10 *(Variation and Adjustments)*.

8. Manufacturer's Securities

8.1 Advance Payment Bond

(a) Within forty-five (45) days of the issuance of the Notice to Proceed, the Manufacturer has to deliver the Procuring Agency the Advance Payment Bond in the amount of 20 percent (20%) of the Supply Price for Goods (as of the Effective Date being the Supply Price for Goods stated in the Bid). The Advance Payment Bond shall come into force and shall become automatically effective upon payment of the Advance Payment by the Procuring Agency. The Advance Payment Bond shall be encashable in accordance with the terms thereof and shall be payable on the Procuring Agency's first written demand without any prior notice, reference or recourse to the Manufacturer for encashment. The receipt by the Procuring Agency of the Advance Payment Bond is also a condition precedent to the Procuring Agency's obligation to make any payments under this Contract. The Manufacturer shall adjust the Face Value of the Advance Payment Bond either upwards or downwards in the event that the Supply Price for Goods is required to be changed by the addition or deduction to ensure that the Face Value of the Advance Payment Bond remains equivalent to (20 %) of the revised Supply Price for Goods.

(b) The Manufacturer shall ensure that the Advance Payment Bond is valid and enforceable (without further action) from the date of issuance until the entire Advance Payment has been adjusted by the Manufacturer. If the terms of the Advance Payment Bond specify its expiry date (the "**Advance Payment Bond Original Expiry Date**"), and the Advance Payment has not been adjusted by the date twenty eight (28) days prior to the Advance Payment Bond Original Expiry Date, the Manufacturer shall extend the validity of the Advance Payment Bond twenty eight (28) days prior to the Advance Payment Bond Original Expiry Date so as to keep it valid and enforceable and, thereafter, the Manufacturer shall continue extending the Advance Payment Bond in such manner to ensure that it is valid at all times until the Advance Payment has been fully adjusted. In the event of failure by the Manufacturer to extend the validity of the Advance Payment Bond in accordance with this Clause, the Procuring Agency shall have the right to encash the Advance Payment Bond to its full

outstanding value.

(c) The Advance Payment forms part of the Supply Price for Goods and is not additional to the Supply Price for Goods. The Advance Payment shall be adjusted through deductions from subsequent milestone Payments in accordance with this Clause 8.1(c) and Clause 11.3 (*Application for Interim Payments for Supply Price for Goods*) until such time as the Advance Payment has been adjusted in full.

(d) If the Advance Payment has not been adjusted prior to the issue of the Release Certificate or prior to termination under Clause 12 (*Termination by Procuring Agency*), Clause 13 (*Suspension and Termination by Manufacturer*) or Clause 15 (*Force Majeure*) (as the case may be), the whole of the balance then outstanding shall immediately become due and payable by the Manufacturer to the Procuring Agency for which the Procuring Agency shall have the right to draw upon the Advance Payment Bond.

(e) The Procuring Agency may make a demand under the Advance Payment Bond, including for amounts to which the Procuring Agency is entitled under this Contract in the event of:

(i) failure by the Manufacturer to keep the Advance Payment Bond valid or extend the validity of the Advance Payment Bond as described in paragraph (c) above, in which event the Procuring Agency may claim the full amount of the Advance Payment Bond;

(ii) failure by the Manufacturer to pay the Procuring Agency:

(A) delay liquidated damages pursuant to Clause 7.6 (Delay Damages) within fifteen (15) days after the date of the delivery of the relevant invoice to the Manufacturer; and/or

(B) an amount due which has either been agreed by the Manufacturer herein (other than the liquidated damages set out in (A) above) or determined under Clause 2.2 (Procuring Agency's Claims) within twenty eight (28) days after such agreement or determination;

(i) in case the credit rating of the Advance Payment Bond or the issuing bank (in either case) falls below the Acceptable Credit Rating and the Manufacturer is unable to provide a substitute Advance Payment Bond in accordance with Clause

8.1(h), then the Procuring Agency may claim the full amount of the Advance Payment Bond;

(ii) material breach by the Manufacturer of Manufacturer's Obligations;

(iii) circumstances which entitle the Procuring Agency to termination under Clause 12.2 (Termination by Procuring Agency), irrespective of whether notice of termination has been given; and/or

(iv) any other event, circumstance or provision stated under this Contract which entitles the Procuring Agency to make a demand under the Advance Payment Bond.

(f) To the extent the Procuring Agency was not entitled to a claim under the Advance Payment Bond and yet received monies in relation to the same, the Procuring Agency shall reimburse (subject to any final settlement/judgment under the dispute resolution mechanism set out herein) the Manufacturer any such amounts within fourteen (14) days of the Procuring Agency's receipt of a written demand from the Manufacturer.

(g) The Procuring Agency shall return the Advance Payment Bond to the Manufacturer within twenty eight (28) days after the Advance Payment has been fully adjusted, provided that, no event is subsisting that entitles the Procuring Agency to make a demand under the Advance Payment Bond nor are there any outstanding claims by the Procuring Agency under the Advance Payment Bond.

(h) Where at any time subsequent to the issuance of the Advance Payment Bond, the Advance Payment Bond issuing bank (as specified in the definition of Advance Payment Bond above) or the Advance Payment Bond fails to meet the Acceptable Credit Rating, then, upon the instructions of the Procuring Agency, the Manufacturer shall, within ten (10) days of receipt of such instructions from the Procuring Agency, procure from a bank or financial institution, which meets the Acceptable Credit Rating, satisfactory to the Procuring Agency a substitute Advance Payment Bond for the amount prevailing as of that date. Upon receipt of such substitute Advance Payment Bond in the form and substance satisfactory to the Procuring Agency, the Procuring Agency shall return the earlier issued Advance Payment Bond to the Manufacturer.

8.2 Performance Guarantee

(a) Within to the Effective Date, the Manufacturer has delivered to the Procuring Agency the Performance Guarantee for proper performance by the Manufacturer of its obligations, in the amount of 10 percent (10%) of the Supply Price (as of the Effective Date being the Supply Price stated in the Bid). The Performance Guarantee shall be encashable in accordance with the terms thereof and shall be payable on the Procuring Agency's first written demand without any prior notice, reference or recourse to the Supplier for encashment. The Manufacturer shall adjust the Face Value of the Performance Guarantee either upwards or downwards in the event that the Supply Price is required to be changed by the addition or deduction to ensure that the Face Value of the Performance Guarantee remains equivalent to 10 percent (10%) of the revised Supply Price.

(b) The Manufacturer shall ensure that the Performance Guarantee is valid and enforceable (without further action) from the date of issuance until **twenty eight (28) days** after the Delivery Date. If the terms of the Performance Guarantee specify its expiry date (the "**Performance Guarantee Original Expiry Date**") and the Manufacturer has not received the Delivery Completion Certificate by the date falling **twenty eight (28) days** prior to the Performance Guarantee Original Expiry Date, the Manufacturer shall at its own cost extend the validity of the Performance Guarantee **twenty eight (28) days** prior to the Performance Guarantee Original Expiry Date so as to keep it valid and enforceable up to at least **twenty eight (28) days** after the then anticipated Delivery Date and thereafter the Manufacturer shall continue extending the Performance Guarantee in such manner to ensure that it is valid at all times until **twenty eight (28) days** after the Delivery Date or for such other period as the procuring agency may determine.

(c) The Procuring Agency may make a demand under the Performance Guarantee, including for amounts to which the Procuring Agency is entitled under this Contract in the event of:

(i) failure by the Manufacturer to keep the Performance Guarantee valid or extend the validity of the Performance Guarantee as described in paragraph (b) above, in which event the Procuring Agency may claim the full amount of the Performance Guarantee;

(ii) failure by the Manufacturer to pay the Procuring Agency;

(A) delay liquidated damages pursuant to Clause 7.6 (Delay Damages) within fifteen (15) days after the date of the

delivery of the relevant invoice to the Manufacturer; and/or

(B) an amount due which has either been agreed by the Manufacturer herein (other than the liquidated damages set out in (A) above) or determined under Clause 2.2 (Procuring Agency's Claims) within twenty eight (28) days after such agreement or determination;

(iii) in case the credit rating of the Performance Guarantee issuing bank falls below the Acceptable Credit Rating and the Manufacturer is unable to provide a substitute Performance Guarantee in accordance with Clause 8.2(f), then the Procuring Agency may claim the full amount of the Performance Guarantee;

(iv) material breach by the Manufacturer of any Manufacturer's Obligations;

(v) circumstances which entitle the Procuring Agency to termination under Clause 12.1 (Termination by Procuring Agency), irrespective of whether notice of termination has been given;

(vi) any claims that the Procuring Agency may have up to the Delivery Date or the date of effectiveness of the Warranty Bond (whichever is later);

(vii) failure by the Manufacturer to comply with its obligations under Clause 9.4 (Failure to Remedy Defects); and/or

(viii) any other event, circumstance or provision stated under this Contract which entitles the Procuring Agency to make a demand under the Performance Guarantee.

(d) To the extent the Procuring Agency was not entitled to a claim under the Performance Guarantee and yet received monies in relation to the same, the Procuring Agency shall reimburse (subject to any final settlement/judgment under the dispute resolution mechanism set out herein) the Manufacturer any such amounts within **fourteen (14) days** of the Procuring Agency's receipt of a written demand from the Manufacturer.

(e) The Procuring Agency shall return the Performance Guarantee to the Manufacturer within **twenty eight (28) days** after:

(i) the Manufacturer receives the Delivery Completion Certificate, provided that, no event is subsisting that entitles the Procuring Agency to make a demand under the Performance Guarantee nor are there any outstanding claims by the Procuring Agency under the Performance Guarantee; and

(ii) the Procuring Agency receives the Warranty Bond from the Manufacturer.

(f) Where, at any time subsequent to the issuance of the Performance Guarantee, the Performance Guarantee issuing bank (as specified in the definition of Performance Guarantee above) or the Performance Guarantee fails to meet the Acceptable Credit Rating, then, upon the instructions of the Procuring Agency, the Manufacturer shall within **ten (10) days** of receipt of such instructions from the Procuring Agency, procure from a bank or financial institution, which meets the Acceptable Credit Rating a substitute Performance Guarantee for the amount prevailing as of that date. Upon receipt of such substitute Performance Guarantee in the form and substance satisfactory to the Procuring Agency, the Procuring Agency shall return the earlier issued Performance Guarantee to the Manufacturer.

8.3 Warranty Bond

(a) Within The Warranty Bond, in the amount of 10 percent (10%) of the Supply Price (following adjustment on Order Date (if any) and, thereafter, on the Release Date), shall be provided before and shall be effective on the earlier of:

(i) the Delivery Date; or

(ii) on the date the Face Value of the Performance Guarantee being equal to zero.

(b) The Warranty Bond shall be encashable in accordance with the terms thereof and shall be payable on the Procuring Agency's first written demand without any prior notice, reference or recourse to the Manufacturer for encashment. The Manufacturer shall adjust the Face Value of the Warranty Bond either upwards or downwards in the event that the Supply Price is required to be changed by the addition or deduction to ensure that the Face Value of the Warranty Bond remains equivalent to 10 percent (10%) of the revised Supply Price till the Final Release Certificate.

(c) The Manufacturer shall ensure that the Warranty Bond is valid and

enforceable (without further action) from the date of issuance until twenty eight (28) days after the anticipated Final Release Date. If the terms of the Warranty Bond specify its expiry date (the "**Warranty Bond Original Expiry Date**") and the Manufacturer has not received the Final Release Certificate by the date falling twenty eight (28) days prior to the Warranty Bond Original Expiry Date, the Manufacturer shall at its own cost extend the validity of the Warranty Bond twenty eight (28) days prior to the Warranty Bond Original Expiry Date so as to keep it valid and enforceable up to at least twenty eight (28) days after the then anticipated Final Release Date and thereafter the Manufacturer shall continue extending the Warranty Bond in such manner to ensure that it is valid at all times until twenty eight (28) days after the Final Release Date.

(d) The Procuring Agency shall not make a demand under the Warranty Bond, except for amounts to which the Procuring Agency is entitled under this Contract in the event of:

(i) failure by the Manufacturer to keep the Warranty Bond valid or extend the validity of the Warranty Bond as described in paragraph (b) above in which event the Procuring Agency may claim the full amount of the Warranty Bond;

(ii) in case the credit rating of the Warranty Bond issuing bank falls below the Acceptable Credit Rating and the Manufacturer is unable to provide a substitute Warranty Bond in accordance with Clause 8.3(f), then the Procuring Agency may claim the full amount of the Warranty Bond;

(iii) failure by the Manufacturer to pay the Procuring Agency:

(A) delay liquidated damages pursuant to Clause 7.6 (Delay Damages) within fifteen (15) days after the date of the delivery of the relevant invoice to the Manufacturer; and/or

(B) an amount due which has either been agreed by the Manufacturer herein (other than the liquidated damages set out in (A) above) or determined under Clause 2.2 (Procuring Agency's Claims) within twenty eight (28) days after such agreement or determination;

(iv) material breach by the Manufacturer of any Manufacturer's Obligation;

(v) circumstances which entitle the Procuring Agency to termination under Clause 12.1 (Termination by Procuring Agency), irrespective of whether notice of termination has been given;

(vi) failure by the Manufacturer to comply with its obligations under Clause 9.4 (Failure to Remedy Defects); and/or

(vii) any other event, circumstance or provision stated under this Contract which entitles the Procuring Agency to make a demand under the Warranty Bond.

(e) To the extent the Procuring Agency was not entitled to a claim under the Warranty Bond and yet received monies in relation to the same, the Procuring Agency shall reimburse (subject to any final settlement/judgment under the dispute resolution mechanism set out herein) the Manufacturer any such amounts within **fourteen (14) days** of the Procuring Agency's receipt of a written demand from the Manufacturer.

(f) The Procuring Agency shall return the Warranty Bond to the Manufacturer within **twenty eight (28) days** after the Final Release Date, provided that, no event is subsisting that entitles the Procuring Agency to make a demand under the Warranty Bond nor are there any outstanding claims by the Procuring Agency under the Warranty Bond.

(g) Where, at any time subsequent to the issuance of the Warranty Bond, the Warranty Bond issuing bank (as specified in the definition of Warranty Bond above) or the Warranty Bond fails to meet the Acceptable Credit Rating, then, upon the instructions of the Procuring Agency, the Manufacturer shall within **ten (10) days** of receipt of such instructions from the Procuring Agency, procure from a bank or financial institution, which meets the Acceptable Credit Rating, satisfactory to the Procuring Agency a substitute Warranty Bond for the amount prevailing as of that date. Upon receipt of such substitute Warranty Bond in the form and substance satisfactory to the Procuring Agency, the Procuring Agency shall return the earlier issued Warranty Bond to the Manufacturer.

9. Defects Liability

9.1 Advance Completion of Outstanding Manufacturer's Obligations and Remedying Defects

(a) In order to ensure that the Manufacturer's Obligations shall be in the condition required by this Contract (fair wear and tear excepted (as applicable)) by the Final Release Date, the Manufacturer shall:

(i) complete any Manufacturer's Obligations, which is outstanding on the date stated in the Delivery Completion Certificate, within such reasonable time as is instructed by the Procuring Agency; and

(ii) perform all work required to remedy Defects or Deficiencies or damage, including work required to remedy Defects or Deficiencies or damage in other parts of the Manufacturer's Obligations consequential upon the original Defects or Deficiencies, as may be notified by the Procuring Agency on or before the expiry date of the Warranty Period for the Manufacturer's Obligations.

(b) If a Defect or Deficiency appears or damage occurs during the Warranty Period, the Procuring Agency shall notify the Manufacturer provided that the Procuring Agency's omission to do so shall not relieve the Manufacturer from its obligations for making good any Defects or Deficiencies that appear within the Warranty Period.

9.2 Cost of Remedying Defects

(a) Subject to Clause 9.2(d), all work (including the removal, replacement and reinstallation of materials and equipment, remedying of Defects or Deficiencies and retesting or inspection of replaced or repaired portion of the Manufacturer's Obligations) referred to in Clause 9.1(a) shall be executed at the risk of the Manufacturer and free of cost.

(b) If and to the extent that such work is attributable to any other cause, the Procuring Agency shall give notice to the Manufacturer accordingly, and Clause 10.3 (*Variation Procedure*) shall apply.

(c) Notwithstanding anything to the contrary in this Contract, the Manufacturer, at its own cost shall be solely responsible for the remedying of all Defects or Deficiencies appearing or any damage due to such Defects or Deficiencies occurring during the Warranty Period and/or the extension of Warranty Period (in terms of Clause 9.3 *(Extension of Warranty Period)*).

(d) The Manufacturer does not warrant the normal wear and tear of the Goods.

9.3 Extension of Warranty Period

(a) The Procuring Agency shall be entitled, subject to Clause 2.2 *(Procuring Agency's Claims),* to an extension of the Warranty Period for any replaced and/or repaired parts or item of the Manufacturer's Obligations if and to the extent that such item or part cannot be used for the purposes for which they are intended by reason of a Defect or Deficiency or any damage due to such Defect or Deficiency (the "**Extended Warranty Items**").

(b) The Warranty Period in respect of any Extended Warranty Items shall be twenty-four (24) months from the date of repair or replacement of such item of the Manufacturer's Obligations. However, the:

(i) Goods Warranty Period shall only be extended up to a maximum of thirty six (36) months from the Delivery Date; and

(ii) Bus Battery and Structure Warranty Period shall only be extended up to a maximum of:

(A) in relation to the battery pack, nine (09) years after the Delivery Date;

(B) in relation to the electric motor structure, thirteen (13) years after the Delivery Date;

(C) in relation to the structure, thirteen (13) years after the Delivery Date; and/or

(D) in relation to the slow and fast chargers, nine (09) years after the Delivery Date.

(the "**Extended Warranty Period**").

(c) Without prejudice to the Manufacturer's obligations to maintain the Warranty Bond in terms of this Contract, the Manufacturer shall extend the validity of the Warranty Bond or provide a replacement bond substantially in the form of the Warranty Bond to cover its obligations in respect of the Extended Warranty Items, in each case to the satisfaction of the Procuring Agency. The amount of such bond for the Extended Warranty Items may be agreed between the Parties on the basis of the value of the Extended Warranty Items however delay in agreement on the value of the Extended Warranty Items shall not constitute discharge of the Manufacturer's obligations to provide such bond for the Extended Warranty Items and shall not prevent the Procuring Agencyfrom encashing the

Warranty Bond in terms of Clause 8.3 (*Warranty Bond*).

9.4 Failure to Remedy Defects

(a) In the event the Manufacturer fails to remedy any Defect or Deficiency within a reasonable time, a date may be fixed by (or on behalf of) the Procuring Agency, on or by which the Defect or Deficiency is to be remedied. The Manufacturer shall be given reasonable notice of this date.

(b) If the Manufacturer: (A) fails to remedy the Defects or Deficiencies or damage in accordance with Clause 9.4(a) and this remedial work was to be executed at the cost of the Manufacturer under Clause 9.2 (*Cost of Remedying Defects*); or (B) fails to comply with any such instruction under Clause 3.2 (*Instructions*), the Procuring Agency may (at its option)

(i) carry out the work itself or by others, in a reasonable manner and at the Manufacturer's cost, but the Manufacturer shall have no responsibility for this work; and the Manufacturer shall, subject to Clause 2.2 (*Procuring Agency's Claims*), pay to the Procuring Agency the costs reasonably incurred by the Procuring Agency in remedying the Defects or Deficiencies or damage;

(ii) agree or determine a reasonable reduction in the Supply Price in accordance with Clause 3.3 (*Determinations*); or

(iii) if the Defects or Deficiencies deprives the Procuring Agency of substantially the whole benefit of the Manufacturer's Obligations or any major part of the Supply or any part thereof do not meet the Applicable Standards, terminate this Contract as a whole, or in respect of such part. Without prejudice to any other rights, under this Contract or otherwise, the Procuring Agency shall then be entitled to recover all sums paid for the Manufacturer's Obligations and returning the Goods to the Manufacturer.

(c) At any time following the end of each month, the Procuring Agency shall compute and advise the Manufacturer in an invoice of the amount(s) due to the Procuring Agency pursuant to this Clause 9.4 (*Failure to Remedy Defects*). Such amounts shall be payable by the Manufacturer within **twenty (20) days** of the date of delivery of such invoice to the Manufacturer. However, failure by the Procuring Agency to provide such invoice in a timely manner shall not

preclude the Procuring Agency from claiming the same from the Manufacturer at a later stage.

9.5 Manufacturer to Search

The Manufacturer shall, if required by the Procuring Agency, search for the cause of any defect, under the direction of the Procuring Agency. Unless the defect is to be remedied at the cost of the Manufacturer under Clause 9.2 (*Cost of Remedying Defects*), the Cost of the search shall be agreed or determined in accordance with Clause 3.3 (*Determinations*).

9.6 Unfulfilled Obligations

After the Final Release Certificate has been issued, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time and of any obligation under Clause 9.7 (*Serial Defects*).

9.7 Serial Defects

(a) If before the expiry of the Serial Defects Notification Period, upon the Manufacturer having become aware of or having been notified by the Procuring Agency of a Serial Defect, the Manufacturer shall investigate and ascertain whether the Serial Defect(s) exist. If a Serial Defect(s) exists and is discovered, the Manufacturer shall furnish the Procuring Agency with a report, detailing the source and root cause of the Serial Defect(s).

(b) The Manufacturer shall submit to the Procuring Agency for its approval details of the remedial work which it proposes to make pursuant to this Clause 9.7 *(Serial Defects)*, the estimated duration of such remedial work, details of such Buses as it may be necessary to halt operations and the proposed dates for the remedial work. The Procuring Agency shall afford the Manufacturer such access to the Delivery Point or other specified bus depots, workshop, etc., as may be reasonable in all the circumstances for such purposes. If the remedial work can be carried out without halting the operations of the Buses, the Manufacturer shall carry out such remedial work as soon as reasonably practicable. If the remedial work necessitates halting operations of Buses, the remedial work shall be carried out at a time and for periods agreed with the Procuring Agency, or failing agreement at such times which minimize disruption to the operation of the Buses as far as practicable having regard to the nature of defect.

(c) The Manufacturer shall forthwith replace all such parts affected by the Serial Defect(s) with brand new parts and promptly rectify the same free of cost within a specified time as identified by the Procuring Agency.

9.8 Release Certificate

(a) The Manufacturer may apply by notice to the Procuring Agency for the Release Certificate upon expiry of the Goods Warranty Period (including any extension thereof under Clause 9.3 (*Extension of*

Warranty Period)) following fulfillment of the Release Certificate Criteria and completion, to the Procuring Agency's satisfaction, of all Goods Warranty Obligations.

(b) The Procuring Agency shall, within twenty (20) days after receiving the Manufacturer's application:

(i) issue the Release Certificate to the Manufacturer; or

(ii) reject the application, giving reasons and specifying the work required to be done by the Manufacturer to enable the Release Certificate to be issued. The Manufacturer shall then complete this work before issuing a further notice under this Clause.

9.9 Final Release Certificate

(a) The Manufacturer may apply by notice to the Procuring Agency for the Final Release Certificate upon expiry of the Bus Battery and Structure Warranty Period (including any extension thereof under Clause 9.3 (*Extension of Warranty Period*)) following fulfillment of the Final Release Certificate Criteria and completion, to the Procuring Agency's satisfaction, of all Bus Battery and Structure Warranty Obligations.

(b) The Procuring Agency shall, within twenty (20) days after receiving the Manufacturer's application:

(i) issue the Final Release Certificate to the Manufacturer; or

(ii) reject the application, giving reasons and specifying the work required to be done by the Manufacturer to enable the Final Release Certificate to be issued. The Manufacturer shall then complete this work before issuing a further notice under this Clause.

(c) This Contract shall not be considered to be completed until the Final Release Certificate has been signed by the Procuring Agency and delivered to the Manufacturer, stating the date on which all obligations under this Contract (inclusive of all of its outstanding obligations during the Warranty Period and/or the Extended Warranty Period) have been completed.

9.10 Handover List

(a) Three (3) months prior to the expiry of the Warranty Period for all Goods excluding the Extended Warranty Items, the Manufacturer shall provide the Procuring Agency with the Handover List, which shall be subject to the Procuring Agency's approval or rejection in writing. The Procuring Agency shall notify the Manufacturer

whether it accepts such Handover List proposed by the Manufacturer or shall otherwise state its reasons for disagreement; provided, however that in the event the Procuring Agency fails to notify the Manufacturer of its acceptance or rejection of the Handover List proposed by the Manufacturer prior to expiry of the Warranty Period, the Handover List proposed by the Manufacturer shall be deemed to be approved by the Procuring Agency; provided further that any acceptance or rejection or deemed acceptance, as applicable, thereof by the Procuring Agency shall not relieve the Manufacturer of its obligations to complete or correct each item in the Handover List prior to the expiry of the Warranty Period. In the event the Manufacturer and the Procuring Agency are unable to agree on the Handover List two (2) months prior to the expiry of Warranty Period, the Procuring Agency shall make a determination in accordance with Clause 3.3 (*Determination*).

(b) Completion of each item of the Handover List on or prior to the expiry of the Warranty Period and in accordance with the Applicable Standards shall be responsibility of the Manufacturer.

9.11 Right Of Access

Until the Release Certificate has been issued, the Manufacturer shall have such right of access to the Manufacturer's Obligations as is reasonably required in order to comply with this Clause, except as may be inconsistent with the Procuring Agency's reasonable security restrictions.

10. Variations and Adjustments

10.1 Right to Vary

(a) Variations may be initiated by the Procuring Agency at any time prior to issuing the Release Certificate, either by an instruction or by a request for the Manufacturer to submit a proposal. A Variation shall not comprise the omission of any work or Manufacturer's Obligations which is to be carried out by others.

(b) The Manufacturer shall execute and be bound by each Variation, unless the Manufacturer promptly gives notice to the Procuring Agency stating (with supporting particulars) that:

(i) the Manufacturer cannot readily obtain the relevant parts/equipment required for the Variation (to the extent it relates to the Goods); or

(ii) it will reduce the safety or suitability of the Manufacturer's Obligations.

(c) Upon receiving this notice, the Procuring Agency shall cancel,

confirm or vary the instruction.

10.2 Value Engineering

(a) The Manufacturer may, at any time, submit to the Procuring Agency a written proposal which (in the Manufacturer's opinion) will, if adopted:

(i) accelerate completion;

(ii) reduce the cost to the Procuring Agency of executing, maintaining or operating the Buses or other Manufacturer's Obligations (as applicable);

(iii) improve the efficiency or value to the Procuring Agency of the completed Manufacturer's Obligations; or

(iv) otherwise, be of benefit to the Procuring Agency.

(b) The proposal shall be prepared at the cost of the Manufacturer and shall include the items listed in Clause 10.3 (*Variation Procedure*).

10.3 Variation Procedure

(a) If the Procuring Agency requests a proposal, prior to instructing a Variation, the Manufacturer shall respond in writing as soon as practicable, either by giving reasons why it cannot comply (if this is the case) or by submitting:

(i) a description of the work to be performed and a Programme for its execution;

(ii) the Manufacturer's proposal for any necessary modifications to the Programme according to Clause 7.3 (*Programme*) and to the Scheduled Delivery Date; and

(iii) the Manufacturer's proposal for adjustment to the Supply Price and the Manufacturer Securities.

(b) The Procuring Agency shall, as soon as practicable after receiving such proposal (under Clause 10.2 (*Value Engineering*) or otherwise), respond with approval, disapproval or comments. The Manufacturer shall not delay any work whilst awaiting a response.

(c) Each instruction to execute a Variation, with any requirements for the recording of Costs, shall be issued by the Procuring Agency to the Manufacturer, who shall acknowledge receipt.

(d) Upon instructing or approving a Variation, the Procuring Agency

shall proceed in accordance with Clause 3.3 (*Determinations*) to agree or determine adjustments to the Supply Price and/or the Schedule of Payment Milestones, extension of Scheduled Delivery Date and any adjustments required to the Manufacturer's Securities. These adjustments shall include reasonable profit and shall take account of the Manufacturer's submissions under Clause 10.2 (*Value Engineering*) if applicable.

10.4 Payment in Applicable Currencies

Whenever an adjustment is agreed, approved or determined as stated above, the amount payable in the relevant currencies shall be specified.

10.5 No Adjustments for Changes in Cost

The Supply Price shall not be adjusted for any reason (except as provided for in this Contract) including, but not limited for inflation or for any changes in, or rises or falls in, the cost of labour, including standard regulatory notifications of minimum wage requirements for labour, material, goods or other inputs to the Supply.

10.6 Order for Additional Production Buses

At any time prior to issuing the Release Certificate, the Procuring Agency may either by an instruction or by a request for the Manufacturer to submit a proposal, require a Variation for Supply of additional Production Buses, provided, however, such Variation does not result in the Supply Price exceeding by more than **15 percent (15%).** Upon instructing or approving a Variation (in response to proposal submitted by the Manufacturer) the procedure for variation under this Clause 10 *(Variations and Adjustments)* shall be followed to agree or determine adjustments to the Supply Price and/or the Schedule of Payment Milestones, schedule of delivery for additional Production Buses and performance of other ancillary Manufacturer's Obligations including as may be applicable adjustments to the Schedule of Delivery and any adjustments required to the Manufacturer's Securities.

11. Supply Price and Payment

11.1 The Supply Price

(a) The Supply Price shall be payable as full and complete compensation for the Manufacturer's Obligations, subject only to adjustments in accordance with this Contract, and payable in accordance with the terms of this Contract. No payment to be made to the Manufacturer hereunder shall be deemed to constitute acceptance or approval of the Manufacturer's Obligations or any part thereof by the Procuring Agency and shall in no manner prejudice the Procuring Agency's right to dispute completion of the relevant Payment Milestone for which payment has been made. The Supply Price shall be payable on the following basis:

(i) Supply Price for Goods shall be payable for Supply of the Goods. The Supply Price for Goods shall be invoiced and

paid in accordance with Clause 11.6 (*Timing and Mode of Payment for Supply Price for Goods*);

11.2 Advance Payment

(a) The amount of the Advance Payment shall be amortised proportionately against amounts recovered through interim applications for payment throughout the progress of the Supply, starting with the first Interim Payment after the Order Date. The currency shall be the same as the Supply Price for Goods.

(b) Subject to receipt of the Advance Payment Bond, the Procuring Agency shall pay the Advance Payment within forty-five (45) days of the issuance of the Notice to Proceed.

(c) The Advance Payment shall be adjusted through proportional deductions from Interim Payments. Such deductions shall be made until such time as the Advance Payment has been adjusted. The Advance Payment forms part of the Supply Price for Goods and is not an additional amount to the Supply Price for Goods.

11.3 Application for Interim Payments for Supply of Goods

(a) The Supply Price for Goods shall be paid following completion of each Payment Milestone (or part thereof) specified in the Schedule of Payment Milestones in accordance with this Contract.

(b) The Procuring Agency shall retain the amount of money, equivalent to 5% of Supply Price for Goods, in the form of irrevocable bank guarantee as "Retention Money Bond", duly issued by the Manufacturer in favour of the Procuring Agency, from any bank having the Acceptable Credit Rating for ensuring quality of work in respect of Manufacturer's Obligations, seven (07) days before first milestone payment.

(c) The Manufacturer shall submit a maximum of two (2) Statements in one original each and five (05) copies each to the Procuring Agency's Representative during each month, in a form approved by the Procuring Agency's Representative, setting out the relevant Payment Milestone(s) (or part thereof) that has been completed and the details of the amounts to which the Manufacturer considers itself to be entitled together with supporting documents including:

(i) the Supply Price for Goods to be paid against the Payment Milestone(s) (or part thereof) completed (including Variations but excluding items described in sub-paragraph (iii) to (vi) below);

(ii) where payment relates to amount due under the Letter of Credit the Manufacturer shall also provide the LC

Documents;

(iii) any amounts to be deducted for the Advance Payment and adjustments in accordance with Clause 11.2 (Advance Payment);

(iv) any other additions or deductions which may have become due in accordance with this Contract or otherwise, including those under Clause 17 (Claims, Disputes and Arbitration); and

(v) the deduction of amounts included in previous Statements.

(d) Following completion or satisfaction of the Supply relating to the completed Payment Milestone, the Procuring Agency, and/or Procuring Agency's Engineer shall either:

(i) certify and approve the completion of the Supply relating to the completed Payment Milestone, in which case it shall issue its certificate of approval to the Manufacturer stating that the Payment Milestone has been completed and setting out each part of the Supply completed (the "**Payment Milestone Completion Certificate**"); or

(ii) reject the completion of the Supply relating to the relevant Payment Milestone, in which case it shall issue its certificate of rejection to the Manufacturer stating that the Payment Milestone has been rejected and setting out each part of the Supply rejected (the "**Payment Milestone Rejection Certificate**") along with the reasons for rejection.

(e) In the event of issuance of a Payment Milestone Rejection Certificate, the Manufacturer shall complete / rework / modify the relevant part of Supply relating to subject Payment Milestone and following such completion, the procedure set out in this Clause 11.3 (Application for Interim Payments for Supply Price for Goods) shall be repeated.

(f) Any issuance of a Payment Milestone Completion Certificate is without prejudice to Clause 1.10 (*No Liability for Review*).

11.4 Interim Payments for Supply of Goods

(a) After the Payment Milestone Completion Certificate has been issued by the Procuring Agency's Representative, the Manufacturer shall submit:

(i) the Statement,

(ii) the supporting information submitted to the Procuring Agency's Representative pursuant to Clause 11.3 (Application for Interim Payments for Supply Price for Goods); and

(iii) the Payment Milestone Completion Certificate, all in six (6) copies to the Procuring Agency.

(b) Payments due shall not be withheld, except that:

(i) if any of the obligations relating to the Supply including anything supplied or work done by the Manufacturer is not in accordance with this Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed by the Manufacturer at its own cost; and/or

(ii) if the Manufacturer was or is failing to perform any obligations relating to the Supply or other obligation in accordance with this Contract, and had been so notified by the Procuring Agency, the value of this work or obligation may be withheld until the work or obligation has been performed by the Manufacturer at its own cost.

(c) The Procuring Agency may, by any payment, make any correction or modification that should properly be made to any amount previously considered due. Payment shall not be deemed to indicate the Procuring Agency's acceptance, approval, consent or satisfaction.

11.5 Schedule of Payment Milestones

The Schedule of Payment Milestones and the amount of Supply Price for Goods corresponding to each Payment Milestone, which amount is subject to adjustments pursuant to this Contract (including Clause 11.3 *(Interim Payments for Supply Price for Goods)* above) is set forth in the Schedule of Payment Milestones.

11.6 Timing and Mode of Payment for Supply Price for Goods

(a) The Procuring Agency shall pay to the Manufacturer:

(i) The amount which is due in respect of each Statement, other than the Final Statement, within thirty (30) days after receiving from the Manufacturer, the Statement, the supporting information submitted to the Procuring Agency's Representative pursuant to Clause 11.3 (Application for Interim Payments for Supply Price for Goods) and the Payment Milestone Completion Certificate.

(ii) The amount due in respect of the Final Statement, within thirty (30) days after receiving the Statement, the supporting information submitted to the Procuring Agency's Representative pursuant to Clause 11.3 (Application for Interim Payments for Supply Price for Goods) and the Payment Milestone Completion Certificate from the Manufacturer and the written discharge from the Manufacturer in connection with Clause 11.7 (Application For Final Payment for Supply Price for Goods) and Clause 11.8 (Final Payment and Discharge for Supply Price for Goods).

(b) All payments of the Supply Price for Goods shall be made under the Letter of Credit. The Letter of Credit shall be established by the Procuring Agency within forty-five (45) days of the issuance of the Notice to Proceed provided the Manufacturer has delivered to the Procuring Agency the Performance Guarantee in accordance with Clause 8.2 (Performance Guarantee).

(c) All claims under the Letter of Credit and payments in respect of the same through the Letter of Credit shall be in accordance with this Contract.

(d) The Manufacturer shall not be entitled to payment under the Letter of Credit, unless the following documents have been submitted to the LC issuing bank for Payment Milestones relating to the delivery of the Goods:

(i) Statement;

(ii) Payment Milestone Completion Certificate;

(iii) the supporting information submitted to the Procuring Agency's Representative pursuant to Clause 11.3 (Application for Interim Payments for Supply Price for Goods);

(iv) commercial invoice;

(v) "Bill of Lading";

(vi) packing list;

(vii) certificate of origin;

(viii) all other documents reasonably required for payment, as stated in the Letter of Credit as mutually agreed by the Parties.

((i) -(viii) above are together referred to as the "**LC Documents**").

(e) Partial shipments shall be allowed under the Letter of Credit. Trans-shipment shall not be allowed.

(f) All opening charges only relating to the opening of the Letter of Credit shall be on the account of the Procuring Agency. However, if the Manufacturer requires the Letter of Credit to be confirmed, confirmation charges shall be borne by the Manufacturer.

(g) All costs resulting from any extensions in the Letter of Credit due to reasons attributable to the Manufacturer shall be at the Manufacturer's account and risk.

11.7 Application for Final Payment for Supply Price for Goods

(a) Within thirty (30) days after issuance of the Delivery Completion Certificate, the Manufacturer shall submit to the Procuring Agency, six (6) copies of a draft final statement with supporting documents showing detail in a form approved by the Procuring Agency:

(i) the value of the Supply delivered in accordance with this Contract; and

(ii) any further sums which the Manufacturer considers to be due to it under this Contract or otherwise.

(b) If the Procuring Agency disagrees with or cannot verify any part of the draft final statement, the Manufacturer shall submit such further information as the Procuring Agency may reasonably require and shall make such changes in the draft as may be agreed between them. The Manufacturer shall then prepare and submit to the Procuring Agency the final statement as agreed. This agreed statement is referred to in this Contract as the "**Final Statement**".

(c) However, if, following discussions between the Parties and any changes to the draft final statement which are agreed, it becomes evident that a dispute exists, the Procuring Agency shall pay the agreed parts of the draft final statement in accordance with Clause 11.4 (*Interim Payments for Supply Price for Goods*) and Clause 11.6 (*Timing and Mode of Payments for Supply Price for Goods*).

(d) Thereafter, if the dispute is finally resolved under Clause 17 (*Claims, Disputes and Arbitration*), the Manufacturer shall then

prepare and submit to the Procuring Agency a Final Statement.

11.8 Final Payment and Discharge for Supply Price of Goods

(a) In accordance with Clause 11.6(a)(ii), the Procuring Agency shall pay to the Manufacturer the Payment Milestone for the Delivery Completion Certificate in accordance with the Schedule of Payment Milestones, less all amounts previously paid by the Procuring Agency, all unpaid and due liquidated damages (if any) by the Manufacturer to the Procuring Agency and any deductions in accordance with Clause 2.2 (*Procuring Agency's Claims*).

(b) When submitting the Final Statement, the Manufacturer shall submit a written discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Manufacturer in respect of the Supply under or in connection with this Contract.

11.9 Cessation of Procuring Agency's Liability for Supply Price for Goods

(a) The Procuring Agency shall not be liable to the Manufacturer for any matter or thing under or in connection with this Contract or execution of any obligations relating to the Supply upon making the Final Payment in terms of Clause 11.8 (*Final Payment and Discharge for Supply Price for Goods*).

(b) However, this Clause shall not limit the Procuring Agency's liability under its indemnification obligations.

11.10 Application for Interim Payments for Supply of Services

(a) The Manufacturer shall submit a Statement for the Supply Price for Services (showing the details as required under Clause 11.10(c)) on the following basis:

(i) Supply Price for Services payable for Drivers Training Programme upon completion of each Payment Milestone (or part thereof) specified in the Schedule of Payment Milestones;

(ii) Supply Price for Services payable for Maintenance Training Programme upon completion of each Payment Milestone (or part thereof) specified in the Schedule of Payment Milestones;

(iii) Supply Price for Services payable for Maintenance Supervision on a quarterly basis as specified in the Schedule of Payment Milestones.

Provided that for completion of the Vehicle Registration Formalities, it is hereby stipulated that any and all costs payable to the relevant governmental authorities/departments shall be borne by the Manufacturer in accordance with the Applicable Laws (the "**Vehicle**

Registration Costs"). Following such Vehicle Registration Costs having been accrued, the Manufacturer shall be entitled to invoice the Vehicle Registration Costs (accompanied with all requisite documentation) to the Procuring Agency (the "**Registration Formalities Invoice**"). Subsequently, following receipt of the Registration Formalities Invoice, the Procuring Agency shall, within forty five (45) days from the date of receipt of the Registration Formalities Invoice, issue a cheque, pay order, or bank draft in favor of the Manufacturer for an amount as stipulated in the Registration Formalities Invoice.

(b) The Procuring Agency shall retain the amount of money, equivalent to 5% of the Supply Price, in the form of irrevocable bank guarantee as "**Retention Money Bond**", duly issued by the Manufacturer in favour of the Procuring Agency, from any bank having the Acceptable Credit Rating for ensuring quality of work in respect of Manufacturer's Obligations, seven (07) days before first milestone payment.

(c) The Statement shall include the following items, as applicable, which shall be expressed in the currency in which the Supply Price for Services is payable:

(i) the applicable Interim Payment (including Variations but excluding items described in sub-paragraph (ii) below)) expressly stating the sums payable to the Local Authorized Dealer;

(ii) any other additions or deductions which may have become due under the Contract or otherwise, including those under Clause 17 (*Claims, Disputes and Arbitratio*n);

(iii) the deduction of amounts due from the Manufacturer under this Contract.

11.11 Interim Payments for Supply Price for Services

(a) Thereafter, the Procuring Agency shall within twenty one (21) days after receiving a Statement and supporting documents, give to the Manufacturer notice of any items in the Statement with which the Procuring Agency disagrees, with supporting particulars. Payments due shall not be withheld, except that:

(i) if any of the Services provided by the Manufacturer is not in accordance with the Contract, the cost of rectification may be withheld until rectification has been completed or the relevant Service has been performed; and/or

(ii) if the Manufacturer was or is failing to perform any of the Services in accordance with the Contract, and had been so

notified by the Procuring Agency, the value of this work or obligation may be withheld until the work or obligation has been performed.

(d) The Procuring Agency may, by any payment, make any correction or modification that should properly be made to any amount previously considered due. Payment shall not be deemed to indicate the Procuring Agency's acceptance, approval, consent or satisfaction.

11.12 Schedule of Payments

The Schedule of Payment Milestones and the amount of the Supply Price for Services corresponding to each Payment Milestone, which amount is subject to adjustments pursuant to the Contract (including Clause 11.11 (Interim Payments for Supply Price for Services)) above, is set forth in **SCHEDULE 7 – SCHEDULE OF PAYMENT MILESTONES** appended herewith.

11.13 Timing and Mode of Payment for Supply Price for Services

(a) Except as otherwise stated in Clause 2.2 (*Procuring Agency's Claims*), the Procuring Agency shall pay to the Manufacturer:

(i) the Interim Payment (as adjusted in accordance with Clause 11.10 (Application for Interim Payments for Supply Price for Services) and Clause 11.11 (Interim Payments for Supply Price for Services)) which is due in respect of each Statement within thirty (30) days after receiving the Statement and supporting documents, except for the last Payment Milestone which shall be paid in terms of sub-clause (ii);

(ii) for the last Payment Milestone (i.e. issuance of Release Certificate), the amount which is due as stated in Schedule 7 – Schedule Of Payment Milestones, in accordance with Clause 11.14 (Final Payments and Discharge for Supply Price for Services) within thirty (30) days from the date of submission of the relevant Statement, together with all supporting documents (including the Release Certificate), is submitted (or if such date is not a working day, by the next immediately succeeding working day),

(iii) provided that notwithstanding anything stated in this Clause 11.13(a), until the Procuring Agency receives the Advance Payment Bond and the Performance Guarantee no payment shall become due or payable to the Manufacturer under this Contract.

(b) All payments against each Statement submitted by the Manufacturer for a Payment Milestone relating to the performance

of the Services shall be made in PKR (USD amount converted into equivalent PKR based on the Conversion Rate) through wire transfer by the Procuring Agency to the Manufacturer's or the Local Authorized Dealer's bank account in Pakistan stated in the relevant Statement. Any payment made hereunder to the Local Authorized Dealer shall constitute full and final discharge and settlement of all moneys due to the Manufacturer under this Contract for the Supply Price for Services and, thereafter, the Manufacturer shall have no further claims against the Procuring Agency.

11.14 Final Payment for Supply Price for Services

(e) Within thirty (30) days after issuance of the Release Certificate, the Procuring Agency shall pay to the Manufacturer the Payment Milestone for Release Date under **SCHEDULE 7 – SCHEDULE OF PAYMENT MILESTONES**, less all amounts previously paid by the Procuring Agency, all unpaid and due liquidated damages (if any) by the Manufacturer to the Procuring Agency and any deductions in accordance with Clause 2.2 (*Procuring Agency's Claims*).

(f) When submitting the Final Statement, the Manufacturer shall submit a written discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Manufacturer in respect of the Services under or in connection with this Contract.

11.15 Cessation of Procuring Agency's Liability for Supply Price for Services

(a) The Procuring Agency shall not be liable to the Manufacturer for any matter or thing under or in connection with the Contract or execution of the Services, upon making the Final Payment in terms of Clause 11.14 (*Final Payment and Discharge for Supply Price for Services*).

(b) However, this Clause shall not limit the Procuring Agency's liability under its indemnification obligations, or the Procuring Agency's liability in any case of fraud, deliberate default or reckless misconduct by the Procuring Agency.

11.16 Currencies of Payment

The Supply Price for Goods is payable in USD and Supply Price for Services is payable in PKR.

11.17 Encashment and Release of Retention Money

(a) The Procuring Agency shall be entitled to encash the Retention Money Bond in accordance with the terms thereof, to its full outstanding value.

(b) The Retention Money Bond shall be encashable in accordance with the terms thereof and shall be payable on the Procuring Agency's first written demand without any prior notice, reference or recourse to the Manufacturer for encashment.

(c) On encashing the Retention Money Bond for ensuring quality of work in respect of Manufacturer's Obligations for the specified period, the Manufacturer would restore the value of Retention Money Bond equivalent to the 5 % amount of the Supply Price.

(d) Within twenty (28) days from expiry of the Bus Battery and Structure Warranty Period, 50 percent (50%) of the Retention Money shall be released to the Manufacturer through adjustment in the face value of Retention Money Bond / bank security.

(e) Within twenty (28) days from issuance of the Final Release Certificate, 50 percent (50%) of the remaining Retention Money shall be released to the Manufacturer.

(f) However, if any of the Manufacture's Obligations remain to be executed pursuant to Clause 9 (Defects Liability), the Procuring Agency shall be entitled to withhold the estimated cost pertaining to such Manufacture's Obligations until the same have been executed.

11.18 Payment of Disputed Amounts

If the Procuring Agency disputes any part of the claimed amount set out in a Statement, the Procuring Agency shall within **thirty (30) calendar days** from date of submission of the Statement specify in writing the items to which the Procuring Agency objects assigning the reasons for such objections on the disputed amount. The Manufacturer shall re-submit to the Procuring Agency a revised Statement taking into account the Procuring Agency's objections. Any disputes shall be referred for resolution under Clause 17 (*Claims, Disputes and Arbitration*).

11.19 Tax, Levies and Duties

(a) The Manufacturer shall be responsible for the Manufacturer's Taxes.

(b) If however, after the Bid Submission Date, there is any change (increase or decrease) in the Manufacturer's Taxes, other than:

(i) change in income tax /withholding income tax applicable on the Manufacturer; and

(ii) any associated custom and import duties for clearance of imported Goods from the port in the Manufacturer's country

(i) and (ii) above collectively referred to as the "**Excluded Taxes**"), the same shall be dealt with in the following manner:

(A) If there is an increase in any applicable Manufacturer's Taxes (other than the Excluded Taxes) which are final and/or non-reimbursable and/or non-adjustable, the Manufacturer shall notify the Procuring Agency of such increase and provide evidence thereof along with the proposed increase in the Supply Price as a consequence thereof. Within fifteen (15) days of receiving the Manufacturer's notification, the Procuring Agency shall review the same and shall revise the Supply Price to the extent of the increase in Manufacturer's Taxes as per the Applicable Law; and

(B) If there is a decrease in any applicable Manufacturer's Taxes (other than the Excluded Taxes) which are final and/or non-reimbursable and/or non-adjustable, the Manufacturer or the Procuring Agency shall notify the other Party of such decrease and provide evidence thereof along with the proposed decrease in the Supply Price as a consequence thereof. Within fifteen (15) days of receiving such notification, the notified Party shall review the same and shall revise the Supply Price to the extent of the decrease in Manufacturer's Taxes as per the Applicable Law.

(c) The Manufacturer shall at all times be required to seek and avail all exemptions or reduced rates of taxes, levies and duties, and the Procuring Agency shall also retain the right to require the Manufacturer to seek and avail all such available exemptions in the knowledge of the Procuring Agency from time to time. In the event of failure of the Manufacturer to avail any such benefit of exemption or reduction in taxes, levies and duties, the Procuring Agency shall be entitled to adjust the Supply Price by taking into account that the Manufacturer has availed the aforesaid benefit.

(d) The Manufacturer hereby agrees to indemnify, defend and hold the Procuring Agency harmless from any and all taxes, liabilities, damages, costs, penalties, fines, expenses, fees (including attorney's fees) and charges of any nature associated with any non-compliance and violations by the Manufacturer of this Clause 11.19 (Taxes, Levies and Duties) including the consequences of any failure to pay the Manufacturer's Taxes as required by all Laws, in relation to the Manufacturer's Obligations.

12. Termination by the Procuring Agency

12.1 Notice to Correct

If the Manufacturer fails to carry out any obligation under this Contract, the Procuring Agency may by notice require the Manufacturer to make good the failure and to remedy it within a specified reasonable time as determined in the Procuring Agency's sole discretion which time may be extended by the Procuring Agency.

12.2 Termination by Procuring Agency

(a) The Procuring Agency shall be entitled to terminate this Contract if:

(i) the Manufacturer fails to comply with Clause 8.2 (*Performance Guarantee*);

(ii) the Manufacturer fails to proceed with the Manufacturer's Obligations in accordance with Clause 7 (*Commencement, Delays and Suspension*);

(iii) the Manufacturer subcontracts the whole Manufacturer's Obligations or assigns this Contract without approval or consent of the Procuring Agency;

(iv) the Manufacturer becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against it, compounds with its creditors, or carries on business under a receiver, trustee or manager for the benefit of its creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events;

(v) the Manufacturer gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an inducement or reward:

(A) for doing or forbearing to do any action in relation to this Contract; or

(B) for showing or forbearing to show favour or disfavour to any person in relation to this Contract, or

if any of the Manufacturer's Personnel, agents, Local Authorized Dealer or Sub-suppliers gives or offers to give (directly or indirectly) to any person any such inducement or reward as is described in this Clause 12.2 (a)(iv). However, lawful inducements and rewards to Manufacturer's Personnel shall not entitle termination;

(vi) in case of liquidated damages, any of the limitation of liability clauses (Clause 7.6 (*Delay Damages*) or Clause 14.5 (*Limitation of Liability*)) is attracted;

(vii) if:

(A) the Manufacturer fails to perform any or all of the Services in accordance with the Schedule of Delivery (including within any extensions thereof in accordance with this Contract);

(B) the Manufacturer fails to deliver any or all of the Goods in accordance with the Schedule of Delivery (including within any extensions thereof in accordance with this Contract); or

(C) the Delivery Date is not achieved within **one hundred (100) days** from the expiry of the corresponding Scheduled Delivery Date; and/or

(viii) the Manufacturer abandons the Manufacturer's Obligations or fails to perform the Manufacturer's Obligations in a diligent manner for a period of twenty-five (25) consecutive days or otherwise demonstrates the intention not to continue performance of its obligations under this Contract without prior written notice to, and prior written consent of, the Procuring Agency;

(ix) any statement, representation or warranty by the Manufacturer in this Contract or in any certificate or other instrument provided by the Manufacturer in connection herewith proves to have been incorrect, in any material respect, when made or when deemed to have been made and such failure or incorrect statement, representation or warranty is likely to have a material and adverse effect on the rights or obligations of the Procuring Agency hereunder or on the Manufacturer's ability to perform its obligations under this Contract;

(x) the Manufacturer commits any material breach of this Contract that is not remedied within twenty-five (25) days

(or such longer period as may permitted by the Procuring Agency in its sole discretion) after notice from the Procuring Agency stating that a material breach of this Contract has occurred and is continuing that could result in the termination of this Contract, identifying the material breach in question in reasonable detail, and demanding remedy thereof;

(xi) the Manufacturer fails to furnish, keep valid, enhance and maintain in full effect the Manufacturer Securities (or any of them) in accordance with this Contract;

(xii) the circumstances in Clause 7.6(d) (Delay Damages) or Clause 9.4(b)(iii) (Failure to Remedy Defects) apply;

(xiii) any material litigation is commenced against the Manufacturer which materially impacts the performance of this Contract or any of the Manufacturer's Obligations.

(b) In any of these events or circumstances, the Procuring Agency may, upon giving fourteen (14) days' notice to the Manufacturer, terminate this Contract and expel the Manufacturer. However, in the case of Clause 12.2 (a)(iv) to (a)(xiii) above, the Procuring Agency may by notice terminate this Contract immediately.

(c) The Procuring Agency's election to terminate this Contract shall not prejudice any other rights of the Procuring Agency, under this Contract or otherwise.

(d) The Manufacturer shall then complete any of the Services (already not completed) and deliver to the Procuring Agency any Goods (already paid for and not delivered to the Procuring Agency) and all Manufacturer's Documents, drawings, specifications and other documents made by or for it, by the Manufacturer or its Sub-suppliers in connection with the Manufacturer's Obligations including all such drawings, specifications and other documents that are required by the Procuring Agency for the purposes of completing the Manufacturer's Obligations and/or for the Procuring Agency operating and maintaining the Buses for the Project. However, the Manufacturer shall use its best efforts to comply immediately with any reasonable instructions included in the notice for the assignment of any subcontract.

(e) Within fourteen (14) days of the Procuring Agency's issuance of the notice of termination, refund the Procuring Agency any

unrecovered portion of the Advance Payment and thereafter the Procuring Agency shall return the Advance Payment Bond.

(f) After termination, the Procuring Agency may complete the Manufacturer's Obligations and/or arrange for any other entities to do so. The Procuring Agency and these entities may use any of the Manufacturer's Documents and operate and maintain the Buses.

12.3 Valuation at Date of Termination

As soon as practicable after a notice of termination under Clause 12.2 (*Termination by Procuring Agency*) has taken effect, the Procuring Agency shall proceed in accordance with Clause 3.3 (*Determinations*) to agree or determine the value of the Manufacturer's Obligations and any other sums due to the Manufacturer for Manufacturer's Obligations executed and performed in accordance with this Contract.

12.4 Payment after Termination

(a) After a notice of termination under Clause 12.2 (*Termination by Procuring Agency*) has taken effect, the Procuring Agency may:

(i) proceed in accordance with Clause 2.2 (Procuring Agency's Claims);

(ii) with-hold further payments to the Manufacturer until the costs of execution, completion and remedying of any Defects or Deficiencies, Serial Defects, damages for delay in completion and other liquidated damages (if any), and all other costs incurred by the Procuring Agency, have been established;

(iii) either

(A) recover from the Manufacturer any Losses incurred by the Procuring Agency and any extra costs of completing the Manufacturer's Obligations (including, without limitation, any extra costs for accelerating completion of the Manufacturer's Obligations, additional financing costs and any liquidated damages payable by the Procuring Agency to third parties for delay in completing the Manufacturer's Obligations), after allowing for any sum due to the Manufacturer under Clause 12.3 (*Valuation at Date of Termination*), provided that the Manufacturer's

obligations to pay for such Losses and extra costs shall not exceed the Supply Price, except as provided for in Clause 14.5 (*Limitation of Liability*); or

(B) reject the Goods and Manufacturer's Obligations, in which case: (a) the Manufacturer shall reimburse the Procuring Agency the entire Supply Price; and (b) the Procuring Agency shall recover from the Manufacturer any Losses incurred by the Procuring Agency (including, without limitation, any additional financing costs and any liquidated damages payable by the Procuring Agency to third parties).

(b) After recovering any Losses, damages and extra costs referred to in sub-clause (a)(iii) (A), the Procuring Agency shall pay any balance due to the Manufacturer under Clause 12.3 (*Valuation at Date of Termination*).

12.5 Procuring Agency's Entitlement to Termination

(a) The Procuring Agency shall be entitled to terminate this Contract, under clause 12.2-, by giving notice of such termination to the Manufacturer. The termination shall take effect from twenty-eight (28) days after the date of issuance of the termination notice.

(b) After this termination, the Manufacturer shall, subject to Clause 2.2 (*Procuring Agency's Claims*), the provisions of Clause 13.2 (*Payment on Termination*) shall apply.

12.6 Obligations upon Termination

Upon expiration or termination of this Contract, the Parties shall have no further obligations hereunder except for obligations that arose prior to such expiration or termination and obligations that expressly survive such expiration or termination pursuant to this Contract.

13. Termination by Manufacturer

13.1 Termination by Manufacturer

(a) The Manufacturer shall be entitled to terminate this Contract if:

(i) the Manufacturer does not receive the amount due, excluding any disputed amounts and except for any deductions that the Procuring Agency is entitled to make under this Contract, within twenty eight (28) days after the expiry of the time stated in Clause 11.6 (Timing and Mode of Payments for Supply Price for Goods) (provided all LC

Documents were timely submitted to the satisfaction of the LC issuing bank) and/or Clause 11.13 (*Timing and Mode of Payments for Supply Price for Services*) within which payment is to be made (except for deductions in accordance with Clause 2.2 (*Procuring Agency's Claims*));

(ii) the Procuring Agency commits a repudiatory breach of its material obligations under this Contract (except in case of such breach of material obligations where there are other remedies (including but not limited to provisions enabling the Manufacturer to submit a claim subject to Clause 17.1 (Manufacturer's Claims))) that is not remedied within ninety (90) days after notice from the Manufacturer to the Procuring Agency stating such material default or material breach;

(iii) the Procuring Agency fails to comply with Clause 1.6 (Assignment) and fails to remedy the breach within ninety (90) days after notice from the Manufacturer to the Procuring Agency

(iv) a prolonged suspension affects the whole of the Manufacturer's Obligations and provided no Variation has been granted by the Procuring Agency, as described in Clause 7.11 (Prolonged Suspension); or

(v) the Procuring Agency becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against it, compounds with its creditors, or carries on business under a receiver, trustee or manager for the benefit of its creditors, or if any act is done or event occurs which (under Applicable Laws) has a similar effect to any of these acts or events.

(vi) On the occurrence of any of these events or circumstances the Manufacturer shall serve a notice on the Procuring Agency informing the Procuring Agency of the circumstances or events entitling the Manufacturer to terminate this Contract and informing the Procuring Agency of the Manufacturer's intention to terminate this Contract. If the events or circumstances specified in such notice continue for a period of fourteen (14) days from the giving of such notice, the Manufacturer may, upon giving a further written notice to the Procuring Agency, terminate this Contract.

(b) The Manufacturer's election to terminate this Contract shall not prejudice any other rights of the Manufacturer, under this Contract or otherwise.

(c) Anything in this Contract notwithstanding, the Manufacturer shall not seek to terminate this Contract.

13.2 Obligations upon Termination

After a notice of termination under Clause 13.1 (*Termination by Manufacturer*) has taken effect, the Procuring Agency shall promptly:

(a) return the Performance Guarantee to the Manufacturer (if applicable);

(b) return the Warranty Bond to the Manufacturer (if applicable);

(c) return the Advance Payment Bond (subject to the Manufacturer returning to the Procuring Agency the Advance Payment not repaid) (if applicable);

(d) pay the Manufacturer, subject to Clause 2.2 (Procuring Agency's Claims), the full value of all Payment Milestones fully completed, or part value of all Payment Milestones partly completed as certified by the Procuring Agency including in respect of the Payment Milestones relating to Goods in accordance with Clause 11.3(d), prior to the date of such termination and which Payment Milestones remain unpaid by the Procuring Agency;

provided however, amounts payable by the Procuring Agency pursuant to (d) above shall be subject to the Procuring Agency's review and audit of the Manufacturer's relevant accounts that have been prepared in line with internationally acceptable accounting practices to ensure that the amounts already paid to the Manufacturer are not claimed again by the Manufacturer and that the Manufacturer is not paid in excess.

14. Risk and Responsibility

14.1 Indemnities

(a) The Manufacturer on behalf of itself and Local Authorized Dealer, its Sub-suppliers, employees, successors and assignees, shall indemnify, hold harmless and defend the Procuring Agency, the Procuring Agency's Personnel, and their respective agents, and each of their respective contractors, agents, representatives, consultants and employees engaged for the Project against and from any and all Losses incurred, suffered, sustained or required to

be paid, directly or indirectly, or sought to be imposed upon any such persons in respect of:

(i) bodily injury, sickness, disease or death, of any person whatsoever arising out of or in the course of or by reason of the execution and completion of the Manufacturer's Obligations and the remedying of any Defects or Deficiencies, unless attributable to any negligence, intentional act or omission of this Contract by the Procuring Agency, the Procuring Agency's Personnel, or any of their respective agents;

(ii) damage to or loss of any property, real or personal (other than the Buses), to the extent that such damage or loss:

(A) arises out of or in the course of or by reason of the execution and completion of the Manufacturer's Obligations and the remedying of any Defects or Deficiencies or Serial Defects; and

(B) is not attributable to any negligence or intentional act of this Contract by the Procuring Agency, the Procuring Agency's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

(b) The Procuring Agency shall indemnify, hold harmless and defend the Manufacturer, the Manufacturer's Personnel, and their respective agents, against and from any and all Losses incurred, suffered, sustained or required to be paid, directly or indirectly, by, or sought to be imposed upon any such persons in respect of bodily injury, sickness, disease or death, which is attributable to any negligence, intentional act or omission of this Contract by the Procuring Agency, the Procuring Agency's Personnel, or any of their respective agents and are not recovered from any insurance proceeds.

(c) In the event injury or damage results from the joint or concurrent negligent or intentional acts or omissions of the Parties, each Party shall be liable under this indemnification in proportion to its relative degree of fault.

(d) Any fines or other penalties incurred by a Party for non-compliance

with Applicable Laws shall not be reimbursed by the other Party but shall be the sole responsibility of the non-complying Party.

14.2 Indemnities

(a) The indemnifying Party shall be entitled, at its option and expense and with counsel of its selection, to assume and control the defense of such claim, action, suit or proceeding at its expense with counsel of its selection, subject to the prior approval of the indemnified Party; provided, however, it gives prompt notice of its intention to do so to the indemnified Party and reimburses the indemnified Party for the reasonable costs and expenses incurred by the indemnified Party prior to the assumption by the indemnifying Party of such defense.

(b) Unless and until the indemnifying Party acknowledges in writing its obligation to indemnify the indemnified Party and assumes control of the defense of a claim, suit, action or proceeding in accordance with this Clause, the indemnified Party shall have the right, but not the obligation, to contest, defend and litigate, with counsel of its own selection, any claim, action, suit or proceeding by any third party alleged or asserted against such Party in respect of, resulting from, related to or arising out of any matter for which it is entitled to be indemnified hereunder, and the reasonable costs and expense thereof shall be subject to the indemnification obligations of the indemnifying Party hereunder.

(c) Upon assumption by the indemnifying Party of the control of the defense of a claim, suit, action or proceeding, the indemnifying Party shall reimburse the indemnified Party for the reasonable costs and expenses of the indemnified Party in the defense of the claim, suit, action or proceeding prior to the indemnifying Party's acknowledgement of the indemnification and assumption of the defense.

(d) Neither Party shall be entitled to settle or compromise any such claim, action, suit or proceeding without the prior written consent of the other Party, provided however, that after agreeing in writing to indemnify the indemnified Party, the indemnifying Party may settle or compromise any claim without the approval of the indemnified Party.

(e) Following the acknowledgement of the indemnification and the assumption of the defense by the indemnifying Party, the indemnified Party shall have the right to employ its own counsel and such counsel may participate in such action, but the fees and expenses of such counsel shall be at the expense of such

indemnified Party, when and as incurred, unless:

(i) the employment of counsel by such indemnified Party has been authorized in writing by the indemnifying Party;

(ii) the indemnified Party shall have reasonably concluded that there may be a conflict of interest between the indemnifying Party and the indemnified Party in the conduct of the defense of such action;

(iii) the indemnifying Party shall not in fact have employed independent counsel reasonably satisfactory to the indemnified Party to assume the defense of such action and shall have been so notified by the indemnified Party; or

(iv) the indemnified Party shall have reasonably concluded and specifically notified the indemnifying Party either that there may be specific defenses available to it which are different from or additional to those available to the indemnifying Party or that such claim, action, suit or proceeding involves or could have a material adverse effect upon it beyond the scope of this Contract.

If (ii), (iii) or (iv) of the preceding sentence shall be applicable, then counsel for the indemnified Party shall have the right to direct the defense of such claim, action, suit or proceeding on behalf of the indemnified Party and the reasonable fees and disbursements of such counsel shall constitute legal or other expenses hereunder.

14.3 Manufacturer's Care of Goods

(a) The Manufacturer shall take full responsibility for the care of the Goods from the Order Date until issuance of the corresponding Certificate of Compliance in respect of the Batch of Goods (till complete delivery of Goods) and transfer of risk of loss to the Procuring Agency.

(b) After responsibility has accordingly passed to the Procuring Agency, the Manufacturer shall take responsibility for the care of any work which is outstanding at the Delivery Date until this outstanding work has been completed.

(c) If there is any loss or damage to the Goods or the Manufacturer's Documents during the period when the Manufacturer is responsible for their care, the Manufacturer shall rectify the loss or damage at the Manufacturer's risk and cost, so that the Goods and

Manufacturer's Documents conform with the requirements of this Contract.

(d) In no event shall the transfer of responsibility to the Procuring Agency in terms of this Clause 14.3, impact other Manufacturer's Obligations including the obligation of the Manufacturer to remedy any Defect or Deficiency or any Serial Defect.

14.4 Intellectual and Industrial Property Rights

(a) In this Clause, "infringement" means an infringement (or alleged infringement) of any patent, registered design, copyright, trademark, trade name, trade secret or other intellectual or industrial property right relating to the Manufacturer's Obligations; and "claim" means a claim (or proceedings pursuing a claim) alleging an infringement.

(b) The Manufacturer shall be responsible for the payment of all fees, royalties and other charges, if any, that may be payable under the terms of any license or permission in respect of any patent rights, design trade mark, copyright or trade name, intellectual property right or other protected right relating to:

(i) the manufacture, use and supply of the Goods and the use thereof for purposes of the Project; and

(ii) any work done or method employed in the performance of the Services or other Manufacturer's Obligations.

If any patent or another industrial right is infringed, the Manufacturer shall procure for Procuring Agency the right of utilization either by modification to the effect that they are free of any third party's right or by procuring the third party's authorization of utilization.
In the event of any claim being made or proceeding instituted against the Procuring Agency to which the above provisions apply, the Procuring Agency shall promptly notify the Manufacturer thereof and the Manufacturer shall, at its own cost, in the Procuring Agency's name deal with such claim or conduct such proceedings and settle such claims and any litigation or arbitration that may arise from it. The Procuring Agency shall not, unless the Manufacturer fails to deal with such claim or conduct such negotiation, litigation or arbitrations, make any admission prejudicial thereto.

(c) If a Party is entitled to be indemnified under this Clause, the indemnifying Party may (at its cost) conduct negotiations for the settlement of the claim, and any litigation which may arise from it.

The other Party shall, at the request and cost of the indemnifying Party, assist in contesting the claim. This other Party (and its personnel) shall not make any admission which might be prejudicial to the indemnifying Party, unless the indemnifying Party failed to take over the conduct of any negotiations, litigation upon being requested to do so by such other Party.

14.5 Limitation of Liability

(a) Neither Party shall be liable to the other Party in contract, tort, warranty, strict liability or any other legal theory for any indirect, consequential, incidental, punitive or exemplary damages, except to the extent that the damages or losses in question are:

(i) liquidated damages for delay pursuant to Clause 7.6 (*Delay Damages*);

(ii) provided for under Clause 12.3(a)(ii), Clause 12.3(a)(iii) (*Payment after Termination*) and Clause 14.1 (*Indemnities*);

(iii) Environmental Liabilities; and/or

(iv) any environmental or social claim.

(b) Neither Party shall have any liability to the other Party except pursuant to, or for breach of, this Contract; provided, however, that this provision is not intended to constitute a waiver of any rights of one party against the other with regard to matters unrelated to this Contract or any activity not contemplated by this Contract.

(c) The total liability of the Manufacturer to the Procuring Agency, under or in connection with this Contract shall not exceed the Supply Price other than for:

(i) Environmental Liabilities; and

(ii) liabilities and costs under Clauses 14.1 (Indemnities) and 14.4 (Intellectual and Industrial Property Rights).

(d) The total liability of the Procuring Agency to the Manufacturer, under or in connection with this Contract shall not exceed the Supply Price.

(e) Notwithstanding the limitations of liability in Clauses 14.5 (a) through (c), this Clause shall not limit liability for:

(i) in any case of gross negligence, criminal conduct, corrupt

and fraudulent acts wilful misconduct, fraud, deliberate default or reckless misconduct by the defaulting Party;

(ii) any costs or expenses which the Manufacturer incurs or expends in order to carry out and complete the Manufacturer's Obligations in accordance with this Contract;

(iii) any liability incurred by the Manufacturer in respect of which the Manufacturer receives insurance proceeds pursuant to the insurance policies required to be maintained;

(iv) breach of Applicable Laws by the Manufacturer; and

(v) the Manufacturer's indemnification obligations in respect of intellectual property rights, injury to persons and property, compliance with law and warranty as to title.

15. Force Majeure

15.1 Definition of Force Majeure

A "**Force Majeure Event**" shall mean any event or circumstance or combination of events or circumstances (including the effects thereof) that is beyond the reasonable control of a Party and that on or after the Order Date materially and adversely affects the performance by such affected Party (the "**Affected Party"**) of its obligations under or pursuant to this Contract; provided, however, that, such material and adverse effect could not have been prevented, overcome or remedied in whole or in part by the Affected Party through the exercise of diligence and reasonable care, it being understood and agreed that reasonable care includes acts and activities to protect the Goods from a casualty or other event that are reasonable in light of the probability of the occurrence of such event, the probable effect of such event if it should occur, and the likely efficacy of the protection measures. Without limiting the generality of the foregoing, "**Force Majeure Events**" hereunder shall include each of the following events and circumstances (including the effects thereof), but only to the extent that each satisfies the requirements above:

(a) the following political events that occur inside or directly involve Pakistan (each a "**Political Event**"):

(i) any act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, civil commotion; or act or campaign of terrorism.

(b) the following events beyond the reasonable control of the affected Party (each a "**Non-Political Event**), including, but not limited to:

(i) lightning, fire, earthquake, tsunami, flood, storm, cyclone,

typhoon, or tornado;

(ii) explosion, chemical contamination, radioactive contamination or ionizing radiation

(iii) epidemic or plague.

(c) Force Majeure Events shall expressly not include the following conditions, events or circumstances:

(i) late delivery or interruption in the delivery of Goods, spare parts or consumables;

(ii) a delay in the performance of any Sub-supplier and/or the Manufacturer;

(iii) a breakdown in machinery or equipment; or

(iv) a normal wear and tear or random flaws in materials and equipment or breakdowns in equipment.

provided, that each of the events described in Clauses (c)(i), (ii), (iii) or (iv) shall constitute a Force Majeure Event to the extent that such events or circumstances are caused by an event or circumstance that is in itself a Force Majeure Event whether experienced directly by the Procuring Agency or by the Manufacturer.

15.2 Notice of Force Majeure Event

(a) Notwithstanding anything contained herein, the Affected Party shall, as soon as practicable, and in any case within seven (7) days of the date of occurrence of a Force Majeure Event or from the date of having knowledge thereof, notify the other Party, of the occurrence of the Force Majeure Event by the issuance of a notice in writing (the "**Force Majeure Notice**").

(b) The Affected Party shall provide all relevant details in respect of the Force Majeure Event in the Force Majeure Notice, including but not restricted to the following:

(i) the nature and extent of the Force Majeure Event;

(ii) the estimated Force Majeure period;

(iii) the nature of and the extent to which, performance of any of the Affected Party's obligations under this Contract are affected by the Force Majeure Event;

(iv) the measures which the Affected Party has taken or proposes to undertake to alleviate/mitigate the impact of the Force Majeure Event and to resume performance of such of its obligations that are affected by the Force Majeure Event;

(v) any other relevant information concerning the Force Majeure Event, and /or the rights and obligations of the Parties under this Contract;

(vi) any other information required in terms of this Contract.

(c) The Parties shall, as soon as practicable upon the receipt of the Force Majeure Notice and in any case within seven (7) days from the date of receipt of the same, convene a meeting for the purpose of conducting discussions, in good faith, and where necessary the Parties shall agree to conduct assessment of the Manufacturer's Obligations in order to:

(i) assess the impact of the underlying Force Majeure Event;

(ii) to determine the likely duration of Force Majeure period; and

(iii) to formulate damage mitigation measures and the steps to be undertaken by the Parties for resumption of the Manufacturer's Obligations, the performance of which had been affected by the Force Majeure Event.

(d) The Affected Party shall during the Force Majeure period provide to the other Party with regular (not less than weekly) reports in respect of the matters set out Clause 15.2(c) and such other information, details and / or documents that the other Party may reasonably require. However, the continuation of the Force Majeure shall be jointly reviewed at the interval of every 30 days through meeting(s) and take decisions accordingly.

15.3 Duty to Minimize Delay and Mitigate

(a) Each Party shall at all times use all reasonable efforts to minimize any delay in the performance of this Contract as a result of a Force Majeure Event and mitigate the effects of a Force Majeure Event and to cure the same with due diligence.

(b) A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure Event and mitigate any loss suffered by either Party as a result of the Force Majeure Event.

(c) The Manufacturer shall be liable to fulfil its obligations under the contract without any additional financial impact to the Procuring Agency.

15.4 Consequences of Force Majeure Events

(a) RELATING TO THE MANUFACTURER:

So long as the Manufacturer has at all times since the occurrence of the Force Majeure Event complied with the obligations of Clause 15.2 (*Duty to Minimize Delay and Mitigate*) and continues to so comply, then (in case of each of (i) and (ii) below) subject to, notwithstanding anything to the contrary, then subject to Clause 17.1 (*Manufacturer's Claims*):

(i) the Manufacturer shall not be liable for any failure or delay in performing its obligations (other than an obligation to make a payment) under or pursuant to this Contract during the existence of such Force Majeure Event (or the effects thereof on such Party);

(ii) the Manufacturer subject to Clause 17.1 (*Manufacturer's Claims*) may be entitled to an extension to any timelines for the execution of the Manufacturer's Obligations, provided, that, no relief, including without limitation the extension of performance deadlines, shall be granted to the Manufacturer pursuant to this Clause 15.3 *(Consequences of Force Majeure Event*) to the extent that such failure or delay would have nevertheless been experienced by the Manufacturer had the Force Majeure Event not occurred or that such failure or delay was caused by the failure of the Manufacturer to comply with its obligations under Clause 15.2 (*Duty to Minimize Delay and Mitigate*); and

(iii) the Procuring Agency shall proceed in accordance with Clause 3.3 (*Determination*) to agree or determine these matters.

(b) RELATING TO THE PROCURING AGENCY:

So long as the Procuring Agency has at all times since the occurrence of the Force Majeure Event complied with the obligations of Clause 15.2 (*Duty to Minimize Delay and Mitigate*) and continues to so comply, then the Procuring Agency shall not be liable for any failure or delay in performing its obligations (other than an obligation to make a payment and allowing a day for day

extension of time to the Manufacturer) under or pursuant to this Contract during the existence of such Force Majeure Event (or the effects thereof on such Party).

Notwithstanding anything to the contrary, the Manufacturer shall solely be responsible to prove any Force Majeure claim raised under Clause 15 (*Force Majeure*) of this Contract.

15.5 Termination for Force Majeure

(a) If a:

(i) the Political Event occurs which continues for a period exceeding one hundred and twenty (120) consecutive days, the either party may give to the other party a notice of termination which shall take effect fifteen (15) days after the giving of the notice, however, existence of the force majeure shall be jointly reviewed at the interval of every 30 days and decided accordingly; or

(ii) Non-Political Event occurs which continues for a period exceeding one hundred and eighty (180) consecutive days, the either party may give to the other party a notice of termination which shall take effect fifteen (15) days after the giving of the notice, however, existence of the force majeure shall be jointly reviewed at the interval of every 30 days and decided accordingly.

16. Insurance

16.1 General Requirements for Insurance

(a) The Manufacturer, without limiting its obligations and liabilities under this Contract, shall take out and maintain at its expense, insurances described in **SCHEDULE 6 – INSURANCE** with insurers of proven solvency, legally authorised to issue insurance policies in Pakistan and in terms and conditions of coverage acceptable to the Procuring Agency.

(b) Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify the loss or damage. Payments received from insurers shall be used for the rectification of the loss or damage.

(c) The Manufacturer shall submit to the Procuring Agency as and when reasonably requested:

(i) evidence that the insurances described in this Contract have been affected;

(ii) copies of the policies for the insurances described in **SCHEDULE 6 – INSURANCE**; and

(iii) the respective periods for submission of evidence of insurance and relevant policies for (i) and (ii) above shall be seven (07) days before execution of these insurances described in **SCHEDULE 6 – INSURANCE**.

(d) When each premium is paid, the Manufacturer shall submit evidence of payment to the Procuring Agency.

(e) The Manufacturer shall comply with the conditions stipulated in each of the insurance policies. The Manufacturer shall keep the insurers informed of any relevant changes to the execution of the Manufacturer's Obligations and ensure that insurance is maintained in accordance with this Clause.

(f) The Manufacturer shall not make any material alteration to the terms of any insurance without the prior approval of the Procuring Agency.

(g) Nothing in this Clause limits the obligations, liabilities or responsibilities of the Manufacturer, under the other terms of this Contract or otherwise. Any amounts not insured or not recovered from the insurers shall be borne by the Manufacturer in accordance with these obligations, liabilities or responsibilities described in this Contract. However, if the Manufacturer fails to effect and keep in force an insurance which is available and which it is required to effect and maintain under this Contract, and the Procuring Agency neither approves the omission nor effects insurance for the coverage relevant to this default, any moneys which should have been recoverable under this insurance shall be paid by the Manufacturer.

(h) The Manufacturer shall notify the Procuring Agency of changes in the nature, the extent and/or the duration of the Manufacturer's Obligations and shall ensure the adequacy of the respective insurance cover as required by this Contract and compliance with applicable insurance policies, endorsements, procedures, terms and conditions at all times.

(i) The Manufacturer shall promptly notify the Procuring Agency, and confirm in writing, all incidents giving rise to a possible claim under the insurance policies procured and maintained by the Manufacturer pursuant to this Contract.

(j) The Manufacturer shall require its Sub-suppliers to maintain such relevant insurances during the period that they are rendering and/or supplying their services and/or their products/equipment to the Manufacturer and request the presentation of the corresponding certificates of insurance that show the validity and effectiveness of the insurances required to be maintained.

16.2 Insurances

The Manufacturer shall obtain and maintain during the term of this Contract the insurances set out in **SCHEDULE 6 – INSURANCE** in accordance with the requirements set out therein.

17. Claims, Disputes and Arbitration

17.1 Manufacturer's Claims

(a) If the Manufacturer considers itself to be entitled to any extension in timelines for performance of Manufacturer's Obligations including under Clauses 7.4 *(Extension of Scheduled Delivery Date)*, Clause 7.8 *(Consequences for Suspension),* Clause 10 *(Variation and Adjustments)* or Clause 15 (*Force Majeure*) and/or any additional payment, under any Clause of this Contract, the Manufacturer shall give notice to the Procuring Agency, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than **twenty-eight (28) days** (or such shorter period expressly stated herein) after the Manufacturer became aware of the event or circumstance. Such notice should also reference the provision of this Contract that stipulates the entitlement of the Manufacturer to claim for an extension of any timeline and/or any additional payment.

(b) If the Manufacturer fails to give notice of a claim within such period of **twenty-eight (28) days** (or such longer period as agreed by both Parties) the Manufacturer shall not be entitled to additional payment, and the Procuring Agency shall be discharged from all liability in connection with the claim.

(c) The Manufacturer shall also submit any other notices which are required by this Contract or the Procuring Agency, and supporting particulars for the claim, all as relevant to such event or circumstance.

(d) The Manufacturer shall keep such contemporary records as may be necessary to substantiate any claim, or at a location acceptable to the Procuring Agency. Without admitting liability, the Procuring Agency may, after receiving any notice under this Clause, monitor the record-keeping and/or instruct the Manufacturer to keep further contemporary records. The Manufacturer shall permit the

Procuring Agency to inspect all these records and shall (if instructed) submit copies to the Procuring Agency.

(e) Within **twenty-eight (28) days** (or such shorter period expressly stated herein) after the Manufacturer became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Manufacturer and approved by the Procuring Agency, the Manufacturer shall send to the Procuring Agency a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

(i) this fully detailed claim shall be considered as interim;

(ii) the Manufacturer shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Procuring Agency may reasonably require; and

(iii) the Manufacturer shall send a final claim twenty-eight (28) days (or such shorter period expressly stated therein) after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Manufacturer and approved by the Procuring Agency.

(f) Within forty-two (42) days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be determined by the Procuring Agency, the Procuring Agency shall respond with approval, or with disapproval and detailed comments. It may also request any necessary further particulars but shall nevertheless give its response on the principles of the claim within such time.

Each Interim Payment shall include such amounts for any claim as have been reasonably substantiated as due under the relevant provision of this Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Manufacturer shall only be entitled to payment for such part of the claim as it has been able to substantiate.

(g) The Procuring Agency shall proceed in accordance with Clause 3.3 (*Determinations*) to agree or determine:

(i) the extension (if any) of timelines for performance of Manufacturer's Obligations including under Clauses 7.4 (*Extension of Scheduled Delivery Date*), Clause 7.8 (*Consequences for Suspension*), Clause 10 (*Variation and Adjustments*) or Clause 15 (*Force Majeure*); and/or

(ii) the additional payment (if any) to which the Manufacturer is entitled under this Contract.

(h) The requirements of this Clause are in addition to those of any other Clause which may apply to a claim. If the Manufacturer fails to comply with this or another Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under paragraph (b) of this Clause.

(i) The Manufacturer shall have the burden of proof as to its claim and entitlement to relief under this Clause 17.1 (*Manufacturer's Claims*).

17.2 Performance to Continue During Dispute

Notwithstanding any reference of a Dispute for arbitration or amicable settlement herein, the Parties shall (to the extent practicable) continue to perform their respective obligations under this Contract unless they otherwise agree.

17.3 Amicable Settlement

Both Parties will attempt in good faith to resolve any controversy or claim of any nature arising out of or relating to this Contract, including any breach thereof, promptly by negotiation between senior executives of the Parties who have authority to amicably settle the controversy or claim. In the event a Party intends to invoke such negotiation process, it shall give the other Party written notice of such intent and specify in writing the specific nature of the dispute. Within **twenty one (21) days** of receipt of said notice, the receiving party shall submit to the other a written response. The executives representing the Parties shall meet at a mutually acceptable time and place within **sixty (60) days** of the receiving Party's notice and thereafter as often as they reasonably deem necessary to exchange relevant information and to attempt to resolve the dispute. In the event such dispute is not resolved by such negotiations, the Parties shall proceed to arbitration in accordance with Clause 17.4 (*Arbitration*). The notices called for within this Clause shall not be deemed a substitute for any other notice requirement set forth in this Contract.

17.4 Arbitration

(a) Any dispute arising out of or in connection with this Contract that has not been resolved following the procedures set forth above or has been required by a Party to be referred to arbitration without reference to the above procedures shall be settled by arbitration in accordance with the Arbitration Act, by three (3) arbitrators

appointed in accordance with the Arbitration Act. The arbitration proceedings shall be conducted, and the award shall be rendered in the English language.

(b) The arbitration shall be conducted in Lahore, Punjab, Pakistan. Except as awarded by the arbitral tribunal, each Party shall be responsible for its own costs incurred by it in connection with an arbitration hereunder.

(c) No arbitrator shall be an employee or agent or former employee or agent of the Parties.

(d) In relation to the Parties, or any parties claiming through the Parties, the provisions of this Sub-Clause shall override and have effect, notwithstanding any arbitration clause or provision to the contrary or otherwise in any bilateral investment treaty to which Pakistan is or may become a party.

(e) The decision of the arbitrators shall be final and binding upon the Parties. Judgment upon the award rendered by the arbitrator may be entered in any court of competent jurisdiction. The Party in whose favor the award is given may enforce such award or judgment in any jurisdiction, including any jurisdiction where the other Party's assets may be located. Except as the Manufacturer and the Procuring Agency otherwise agree in writing pending the final resolution of any dispute in accordance with this Clause 17 (*Claims, Disputes and Arbitration*), the Manufacturer shall proceed diligently with the performance of the Manufacturer's Obligations under this Contract and in compliance with the Procuring Agency's or Procuring Agency's Representative's directions, respectively.

17.5 Jurisdiction Of Courts

The Courts of Lahore shall have exclusive jurisdiction over any matter arising out of or in relation to this Contract Agreement.

18. Counterparts

This Contract may be executed in any number of counterparts, and this has the same effect as if the signatures were on a single copy of this Contract.

LIST OF SCHEDULES

1. SCHEDULE 1 – FORM OF ADVANCE PAYMENT BOND

2. SCHEDULE 2 – FORM OF PERFORMANCE GUARANTEE.

3. SCHEDULE 3 – FORM OF WARRANTY BOND

4. SCHEDULE 4 – PROCURING AGENCY'S REQUIREMENTS

5. SCHEDULE 5 – SCHEDULE OF DELIVERY

6. SCHEDULE 6 – INSURANCE

7. SCHEDULE 7 – SCHEDULE OF PAYMENT MILESTONES

8. SCHEDULE 8 – RELEASE CERTIFICATE CRITERIA.

9. SCHEDULE 9 – FINAL RELEASE CERTIFICATE CRITERIA

10. SCHEDULE 10 – LIST OF SUB-SUPPLIERS

SCHEDULE 1 – FORM OF ADVANCE PAYMENT BOND

DATED:
[•]

To:
[●]
[*Insert Address*]

ADVANCE PAYMENT BOND NO. ..... (hereinafter referred to as the "**Bond**")

We, [●][6], being the Bond issuing bank (the "**Issuing Bank**") understand that the following parties are entering into an agreement entitled the "**CONTRACT**" (the **"Contract"**), on and about the date hereof:

(a) **PUNJAB MASSTRANSIT AUTHORITY,** a statutory body established by the Government of Punjab duly organized and existing under the laws of Pakistan, with its principal office located at [*insert address*] (the "**Procuring Agency**", which expression shall include its successors-in-interest and permitted assigns) and

(b) **[●]**, a company incorporated under the laws of **[●]** with its registered office located at **[●]** (the **"Manufacturer"**).

Further, we understand that pursuant to the Notification of Award dated [•] (the **"Notification of Award"**), the Manufacturer is required to provide the Procuring Agency with an advance payment bond equal to USD [•]/- ([•] US Dollars) and maintain the same in accordance with the terms of the Contract. Subject to the receipt of this Bond by the Procuring Agency, the Procuring Agency is required to pay the Manufacturer an amount equal to USD [•]/- ([•] US Dollars) (the "**Advance Payment**").

The above premised, we (the Issuing Bank) hereby undertake irrevocably and unconditionally on demand to pay to the Procuring Agency, without any notice, reference or recourse to the Manufacturer or to any other entity or without any recourse or reference to the Notification of Award, the Contract or any other document, agreement, instrument or deed, any sum or sums (or any part thereof) equivalent in aggregate up to but not exceeding a maximum amount of:

USD [•]/- ([•] US Dollars)
(the "**Guaranteed Amount**")

at sight and immediately, however not later than [•] ([•]) business days from the date of receipt of the Procuring Agency's first written demand (the "**Demand**") at the Issuing Bank's offices located at [•] such Demand stating:

(a) that the Manufacturer is in breach of its obligations to repay the Advance Payment (in whole or in part) to the Procuring Agency or extend the validity of the Bond;

(b) the total amounts demanded; and

(c) the details of the account in which the total amounts demanded are to be credited.

[6] Insert name of Issuing Bank.

A Demand shall only be honoured by us in the case of a written Demand, if it is made by and bears the signature of an authorised officer or other representative of the Procuring Agency.

We, the Issuing Bank, shall unconditionally honour a Demand hereunder made in compliance with this Bond at sight and immediately on the date of receipt of the Demand, as stated earlier, and shall transfer the amount specified in the Demand to the bank account, as notified in the Demand, in immediately available and freely transferable funds in the currency of this Bond, free and clear of and without any set-off or deduction for or on account of any present or future taxes, levies, imposts, duties, charges, fees, deductions or withholdings of any nature whatsoever and by whomsoever imposed.

This Bond shall come into force and shall become automatically effective upon the payment of the Advance Payment to the Manufacturer, as evidenced through a copy of SWIFT instructions transmitted by the Procuring Agency's bank (i.e. National Bank of Pakistan) to the Issuing Bank.

After having come into force, this Bond and our obligations hereunder will expire on the earlier of:

(i) [•] (the "**Advance Payment Bond Expiry Hard Date**") provided that, in the event that the Issuing Bank has receipt of the Demand on or immediately prior to the Advance Payment Bond Expiry Hard Date, the Issuing Bank shall honour that Demand;

(ii) when the aggregate of all payments made by us under this Bond equal the Guaranteed Amount; or

(iii) the Guaranteed Amount is reduced to zero in terms specified below.

Upon expiry, this Bond shall be returned to the Manufacturer. Multiple Demands may be made by the Procuring Agency under this Bond but our aggregate liability will be restricted up to the Guaranteed Amount.

The Guaranteed Amount will be reduced in accordance with the Contract upon the Manufacturer's presentation to us of the relevant commercial invoice, duly signed and approved by the Procuring Agency, clearly stating the amount by which the Guaranteed Amount is to be reduced.

We hereby agree that any amendment, renewal, extension, modification, compromise, release or discharge by mutual agreement by the Procuring Agency, the Manufacturer or any other entity of any document, agreement, instrument or deed shall not in any way impair or affect our liabilities hereunder and maybe undertaken without notice to us and without the necessity for any additional endorsement, consent or guarantee by us.

This Bond for its validity period shall not be affected in any manner by any change in our constitution or of the Manufacturer's constitution or of their successors and assignees and this Bond shall be legally valid, enforceable and binding on each of their successors and permitted assignees.

All references to any contract, agreement, deed or other instruments or documents are by way of reference only and shall not affect our obligations to make payment under the terms of this Bond.

If one or more of the provisions of this Bond are held or found to be invalid, illegal, or unenforceable for any reason whatsoever, in any respect, any such invalidity, illegality, or unenforceability of any provision shall not affect the validity of the remaining provisions of this Bond.

We hereby declare and confirm that under our constitution and Applicable Laws and regulations, we have the necessary power and authority, and all necessary authorizations, approvals and consents thereunder to enter into, execute, deliver and perform the obligations we have undertaken under this Bond, which obligations are valid and legally binding on and enforceable against us under the laws of Pakistan and under the laws of the jurisdiction where this Bond is issued. Further, that the signatory(ies) to this Bond is/are our duly authorized officer(s) to execute this Bond.

This Bond and all rights and obligations arising from this Bond shall be governed and construed in all respects in accordance with the laws of Pakistan. The courts in Pakistan shall have exclusive jurisdiction in respect of any dispute relating to any matter contained herein.

The issuance of this Bond is permitted according to the laws of Pakistan and the laws of the jurisdiction where this Bond is issued.

This Bond is subject to the Uniform Rules for Demand Guarantee, ICC Publication No.758. To the extent that there is any inconsistency between the terms of this Bond and the Uniform Rules for Demand Guarantees, ICC Publication No. 758, the terms of this Bond shall prevail.

EXECUTED & ISSUED
FOR & ON BEHALF OF THE GUARANTOR BANK

.....
NAME:
DESIGNATION:
DATED:

WITNESSES

WITNESS I	**WITNESS II**
.....	**.....**
NAME:	NAME
CNIC NO.:	CNIC NO.:

SCHEDULE 2 – FORM OF PERFORMANCE GUARANTEE

DATED:
[•]

To:
[●]
[Insert Address]

PERFORMANCE GUARANTEE NO. ..... (the "**Bond**")

We, [●][7], being the Bond issuing bank (the **"Issuing Bank"**) understand that the following parties are entering into an agreement entitled "**CONTRACT**" (the **"Contract"**), on and about the date hereof:

(a) **PUNJAB MASSTRANSIT AUTHORITY,** a statutory body established by the Government of Punjab duly organized and existing under the laws of Pakistan, with its principal office located at [*insert address*] (the "**Procuring Agency**", which expression shall include its successors-in-interest and permitted assigns) and

(b) **[•]**, a company incorporated under the laws of **[•]** with its registered office located at **[•]** (the **"Manufacturer"**).

Further, we understand that pursuant to the Notification of Award dated [•] (the **"Notification of Award"**), the Manufacturer is required to provide the Procuring Agency with a performance bond equal to [●] [●]/- ([●] [●]) and maintain the same in accordance with the terms of the Contract.

The above premised, we (the Issuing Bank) hereby undertake irrevocably and unconditionally on demand to pay to the Procuring Agency, without any notice, reference or recourse to the Manufacturer or to any other entity or without any recourse or reference to the Notification of Award, the Contract or any other document, agreement, instrument or deed, any sum or sums (or any part thereof) equivalent in aggregate up to but not exceeding a maximum amount of:

[•] [•]/- ([•][•])
(the **"Guaranteed Amount"**)

at sight and immediately, however not later than [•] ([•]) business days from the date of receipt of the Procuring Agency's first written demand (the **"Demand"**) at the Issuing Bank's offices located at [•], such Demand stating:

(a) that the Manufacturer has failed to perform any of his contractual obligations:

(b) the total amounts demanded.

We, the Issuing Bank, shall unconditionally honor a Demand hereunder made in compliance with this Bond at sight and immediately on the date of receipt of your Demand, as stated earlier, and shall transfer the amount specified in the Demand to the bank account, as notified in the Demand, in immediately available and freely transferable funds in the currency of this Bond, free and clear of

[7] Insert name of Issuing Bank.

and without any set-off or deduction for or on account of any present or future taxes, levies, imposts, duties, charges, fees, deductions or withholdings of any nature whatsoever and by whomsoever imposed.

This Bond shall come into force and shall become automatically effective upon its issuance.

After having come into force, this Bond and our obligations hereunder will expire on: [•] (the "**Performance Guarantee Original Expiry Date**") provided that, in the event the Issuing Bank has received the Demand on or immediately prior to the Performance Guarantee Original Expiry Date, the Issuing Bank shall honor that Demand.

Upon expiry, this Bond shall be returned to the Manufacturer. Multiple Demands may be made by the Procuring Agency under this Bond but our aggregate liability will be restricted up to the Guaranteed Amount.

The Guaranteed Amount shall be revised upon receipt by us of a notice duly signed by the Procuring Agency and the Manufacturer of the revised guaranteed amount.

We hereby agree that any amendment, renewal, extension, modification, compromise, release or discharge by mutual agreement by the Procuring Agency, the Manufacturer or any other entity of any document, agreement, instrument or deed shall not in any way impair or affect our liabilities hereunder and maybe undertaken without notice to us and without the necessity for any additional endorsement, consent or guarantee by us, the notice of which is hereby waived.

This Bond for its validity period shall not be affected in any manner by any change in our constitution or of the Manufacturer's constitution or of their successors and assignees and this Bond shall be legally valid, enforceable and binding on each of their successors and permitted assignees.

All references to any contract, agreement, deed or other instruments or documents are by way of reference only and shall not affect our obligations to make payment under the terms of this Bond.
If one or more of the provisions of this Bond are held or found to be invalid, illegal, or unenforceable for any reason whatsoever, in any respect, any such invalidity, illegality, or unenforceability of any provision shall not affect the validity of the remaining provisions of this Bond.

We hereby declare and confirm that under our constitution and Applicable Laws and regulations, we have the necessary power and authority, and all necessary authorizations, approvals and consents thereunder to enter into, execute, deliver and perform the obligations we have undertaken under this Bond, which obligations are valid and legally binding on and enforceable against us under the laws of Pakistan and under the laws of the jurisdiction where this Bond is issued. Further, that the signatory(ies) to this Bond is/are our duly authorized officer(s) to execute this Bond.

This Bond and all rights and obligations arising from this Bond shall be governed and construed in all respects in accordance with the laws of Pakistan. The courts in Lahore, Pakistan shall have exclusive jurisdiction in respect of any dispute relating to any matter contained herein.

The issuance of this Bond is permitted according to the laws of Pakistan and the laws of the jurisdiction where this Bond is issued.

This Bond is subject to the Uniform Rules for Demand Guarantee, ICC Publication No.758. To the extent that there is any inconsistency between the terms of this Bond and the Uniform Rules for Demand Guarantees, ICC Publication No. 758, the terms of this Bond shall prevail.

EXECUTED & ISSUED
FOR & ON BEHALF OF THE GUARANTOR BANK

.....
NAME:
DESIGNATION:
DATED:

WITNESSES

WITNESS I

.....
NAME:
CNIC NO.:

WITNESS II

.....
NAME
CNIC NO.:

SCHEDULE 3 – FORM OF WARRANTY BOND

DATED:
[•]

To:
[•]
[Insert Address]

WARRANTY BOND NO. ..... (the "**Bond**")

We, [•][8], being the Bond issuing bank (the **"Issuing Bank"**) understand that the following parties have entered into an agreement entitled "**CONTRACT**" dated [•] (the **"Contract"**):

(a) **PUNJAB MASSTRANSIT AUTHORITY,** a statutory body established by the Government of Punjab duly organized and existing under the laws of Pakistan, with its principal office located at [*insert address*] (the "**Procuring Agency**", which expression shall include its successors-in-interest and permitted assigns) and

(b) **[•]**, a company incorporated under the laws of **[•]** with its registered office located at **[•]** (the **"Manufacturer"**).

Further, we understand that the Manufacturer is required to provide the Procuring Agency with a warranty bond equal to [•] [•]/- ([•] [•]) and maintain the same in accordance with the terms of the Contract.

The above premised, we (the Issuing Bank) hereby undertake irrevocably and unconditionally on demand to pay to the Procuring Agency, without any notice, reference or recourse to the Manufacturer or to any other entity or without any recourse or reference to the Contract or any other document, agreement, instrument or deed, any sum or sums (or any part thereof) equivalent in aggregate up to but not exceeding a maximum amount of:

[•] [•]/- ([•][•])
(the **"Guaranteed Amount"**)

at sight and immediately, however not later than [•] ([•]) business days from the date of receipt of the Procuring Agency's first written demand (the **"Demand"**) at the Issuing Bank's offices located at [•], such Demand stating:

(a) that the Manufacturer is in breach of its obligations towards the Procuring Agency:

  (i) specifying the breach and, if applicable, requesting the Manufacturer to cure the breach;

  (ii) if applicable, certifying that the Manufacturer has failed to remedy the breach within the period allowed for remedial action; and

(b) the total amounts demanded.

[8] Insert name of Issuing Bank.

A Demand shall only be honored by us in the case of a written Demand, if it is made by and bears the signature of an authorized officer or other representative of the Procuring Agency.

We, the Issuing Bank, shall unconditionally honor a Demand hereunder made in compliance with this Bond at sight and immediately on the date of receipt of your Demand, as stated earlier, and shall transfer the amount specified in the Demand to the bank account, as notified in the Demand, in immediately available and freely transferable funds in the currency of this Bond, free and clear of and without any set-off or deduction for or on account of any present or future taxes, levies, imposts, duties, charges, fees, deductions or withholdings of any nature whatsoever and by whomsoever imposed.

This Bond shall come into force and shall become automatically effective upon its issuance.

After having come into force, this Bond and our obligations hereunder will expire on [•] (the "**Warranty Bond Original Expiry Date**") provided that, in the event the Issuing Bank has receipt of the Demand on or immediately prior to the Warranty Bond Original Expiry Date, the Issuing Bank shall honor that Demand.

Upon expiry, this Bond shall be returned to the Manufacturer without undue delay. Multiple Demands may be made by the Procuring Agency under this Bond but our aggregate liability will be restricted up to the Guaranteed Amount.

The Guaranteed Amount shall be revised upon receipt by us of a notice duly signed by the Procuring Agency and the Manufacturer of the revised guaranteed amount.

We hereby agree that any amendment, renewal, extension, modification, compromise, release or discharge by mutual agreement by the Procuring Agency, the Manufacturer or any other entity of any document, agreement, instrument or deed shall not in any way impair or affect our liabilities hereunder and maybe undertaken without notice to us and without the necessity for any additional endorsement, consent or guarantee by us.

This Bond for its validity period shall not be affected in any manner by any change in our constitution or of the Manufacturer's constitution or of their successors and assignees and this Bond shall be legally valid, enforceable and binding on each of their successors and permitted assignees.

All references to any contract, agreement, deed, or other instruments or documents are by way of reference only and shall not affect our obligations to make payment under the terms of this Bond.

If one or more of the provisions of this Bond are held or found to be invalid, illegal, or unenforceable for any reason whatsoever, in any respect, any such invalidity, illegality, or unenforceability of any provision shall not affect the validity of the remaining provisions of this Bond.

We hereby declare and confirm that under our constitution and Applicable Laws and regulations, we have the necessary power and authority, and all necessary authorizations, approvals and consents thereunder to enter into, execute, deliver and perform the obligations we have undertaken under this Bond, which obligations are valid and legally binding on and enforceable against us under the laws of Pakistan and under the laws of the jurisdiction where this Bond is issued. Further, that the signatory(ies) to this Bond is/are our duly authorized officer(s) to execute this Bond.

This Bond and all rights and obligations arising from this Bond shall be governed and construed in all respects in accordance with the laws of Pakistan. The courts in Pakistan shall have exclusive jurisdiction in respect of any dispute relating to any matter contained herein.

The issuance of this Bond is permitted according to the laws of Pakistan and the laws of the jurisdiction where this Bond is issued.

This Bond is subject to the Uniform Rules for Demand Guarantee, ICC Publication No.758. To the extent that there is any inconsistency between the terms of this Bond and the Uniform Rules for Demand Guarantees, ICC Publication No. 758, the terms of this Bond shall prevail.

EXECUTED & ISSUED
FOR & ON BEHALF OF THE GUARANTOR BANK

.....
NAME:
DESIGNATION:
DATED:

WITNESSES

WITNESS I

.....
NAME:
CNIC NO.:

WITNESS II

.....
NAME
CNIC NO.:

SCHEDULE 4 – PROCURING AGENCY'S REQUIREMENTS

[PLEASE REFER TO SECTION III – TECHNICAL SPECIFICATIONS IN THE RFP DOCUMENT]

SCHEDULE 5 – SCHEDULE OF DELIVERY

SUPPLY AND MAINTENANCE SUPERVISION OF THE PROJECT				
ITEM NO.	NAME OF SUPPLY OBLIGATIONS	DESCRIPTION	UNIT OF MEASUREMENT	QUANTITY
LIST OF BUSES AND SPARE PARTS				
1.	Supply of 9-meter Pure Electric Buses		No.	63
2.	Supply of full Spare Parts package for the Buses from the delivery of the first Bus through the duration of the Contract.		Lump sum	[•]
3.	Supply of tools and diagnostic equipment for the Project		No.	[•]
LIST OF SERVICES AS PART OF SUPPLY OBLIGATIONS				
5.	Maintenance supervision of the Buses	Refer to Schedule 4 – Procuring Agency's Requirements Technical Specifications for detail description	Month	12
6.	Maintenance training program		Lump sum	[•]
7.	Driver training program		Lump sum	[•]
8.	Completion of full vehicle homologation, registration and licensing for the Buses		Lump sum	[•]
9.	Cost of Inland Transport and associated insurance for supply of Buses to Delivery Point	Clause 16 (*Insurance*) of the Contract and Schedule 6 (*Insurance*)	Lump sum	[•]

DELIVERY AND COMPLETION SCHEDULE

The delivery period shall start from the issuance of the Notice to Proceed

ITEM NO.	DESCRIPTION OF SUPPLY OBLIGATIONS	DELIVERY SCHEDULE (DURATION)	LOCATION	REQUIRED DELIVERY DATE OF BUSES & SPARE PARTS OR COMPLETION DATE FOR OTHER SUPPLY OBLIGATIONS
LIST OF BUSES AND SPARE PARTS				
1.	Supply of 9 meter Pure Electric Buses.	Submission of Concept Design: Within 15 days from the Notice to Proceed Approval of Concept Design: Within 15 days from the submission of Concept Design Submission of Detailed Design: Within 15 days from the approval of Concept Design Approval of Detailed Design: Within 15 days from the submission of Detailed Design Production and testing of first full unit at factory (prototype bus): Within 30 days from the approval of Detailed Design Submission of Final Production Bus Design: Within 15 days of issuance of the Prototype Test Acceptance Certificate Approval of Final Production Bus Design: Within 10 days from submission of the Final Production Bus Design Delivery of first	Rawalpindi , Punjab, Pakistan	Tranche of the quantities within 06 months from the Notice to Proceed under the Contract for buses to be shipped from manufacturer's country of origin. Issuance of LC shall not be the prerequisite to the Notice to Proceed and Advance Payment, and the delivery schedule timeline shall immediately come in effect from issuance of Notice to Proceed.

		batch/tranche of Buses comprising of 63 Nos., 9-meter buses: six (06) months from the date of issuance of Notice To Proceed.		
		Warranty for the Buses, Spare Parts and components (excluding Bus Batteries i.e., battery packs and electric motors) over a period of two years from the delivery of the Buses and Spare Parts whereas warranty for Bus Battery & Structure i.e., battery packs, electric motors, structure and fast chargers shall be for 12 years or 1.2 million kilometers of service, whichever milestone occurs first.	Rawalpindi , Punjab, Pakistan	Warranty effective from the Delivery Date (including issuance of the Certificate of Compliance) for each Bus for a period of 2 years (subject to any extensions thereof) in accordance with Article 9 *(Defects Liability)* of the Contract. Warranty for Bus Batteries and Structure shall be effective from the Delivery Date (including issuance of the Certificate of Compliance) for each Bus through the Bus's 12 years or 1.2 million kilometers of service, whichever milestone occurs first.
2.	Supply of full Spare Parts package for Buses from the delivery of the first Bus through the duration of the Contract.	Spare parts delivered in a timely manner to ensure availability during the duration of the Contract	Rawalpindi , Punjab, Pakistan	Sufficient Spare Parts available from the date of delivery of Buses for a period of 02 years warranty in accordance with Article 9 (*Defects Liability*) of the Contract.
3.	Supply of tools and diagnostic equipment one each for each Bus	Maintenance tools	Rawalpindi , Punjab, Pakistan	Maintenance tools delivered from the date of the first Bus delivery
LIST OF SERVICES				
4.	Maintenance supervision of Buses		Rawalpindi , Punjab, Pakistan	Maintenance Supervision provided for period of 12 months from the date of delivery of the last Bus.

				The Manufacturer shall also be responsible for any required maintenance supervision services between the delivery of first and last Bus.
5.	Maintenance training program		Rawalpindi , Punjab, Pakistan	Initial maintenance training program shall be completed within maximum of 06 months from Notice to Proceed. Final maintenance training program shall be completed prior to issuance of the Release Certificate.
6.	Driver training program		Rawalpindi , Punjab, Pakistan	Driver training program shall commence within 6 months after signing of this Contract. Driver training program shall be completed within 02 months after commencement of the same.
7.	Completion of full vehicle homologation, registration and licensing for Buses	Homologation, registration, and licensing of each Bus to be completed at time of Bus delivery	Rawalpindi , Punjab, Pakistan	Full homologation, registration, and licensing of each Bus to be completed within 45 days' time of Bus delivery
8.	Cost of Inland Transport and associated insurance for supply of Buses to Delivery Point.		Rawalpindi , Punjab, Pakistan	

SCHEDULE 6 – INSURANCE

The Manufacturer shall procure at its own cost:

- Marine insurance;
- Inland transit insurance from Karachi Port to the designated in Rawalpindi, Pakistan;
- Insurances procured by the manufacturer should include comprehensive insurance for terrorism, vandalism and sabotage; and
- The manufacturer shall ensure that the relevant insurances shall continue to be valid for three (3) months after the delivery of the Goods to the designated Bus Depot in Rawalpindi, Punjab including Fire incidents

SCHEDULE 7 – SCHEDULE OF PAYMENT MILESTONE

PAYMENT MILESTONE FOR SUPPLY PRICE OF GOODS AS PER BIDDING DOCUMENTS
ADVANCE PAYMENT: Twenty (20) percent of the Supply Price for Goods payable within forty-five (45) days of the issuance of the Notice to Proceed provided the Manufacturer has delivered the Advance Payment Bond.
ON SHIPMENT FROM COUNTRY OF ORIGIN: Twenty (20) percent of the Supply Price for Goods with respect to Batch of Goods from the country of origin of the Goods.
ON DELIVERY AT THE DELIVERY POINT IN KARACHI: Thirty (30) percent of the Supply Price for Goods on delivery to the Delivery Point (Karachi, Pakistan).
ON ISSUANCE OF CERTIFICATE OF COMPLIANCE FOR EACH BATCH OF GOODS: Thirty (30) percent of the Supply Price for Goods on issuance of Certificate of Compliance for each Batch of Goods.

Note: *The advance payment shall be adjusted from 3rd payment milestone and shall be paid in full along with 4th payment milestone upon issuance of certificate of compliance for the respective batch of goods.*

PAYMENT NO.	DESCRIPTION	PAYMENT MILESTONES	ADJUSTMENT OF ADVANCE PAYMENT	NET PAYMENT
1	Advance Payment	20%	0%	20%
2	On Shipment from Country of Origin	20%	0%	20%
3	On Delivery at Delivery Point	30%	20%	10%
4	On Issuance of Certificate of Compliance	30%	0%	50%
TOTAL PAYMENT		**100%**	**20%**	**100%**

TERMS OF PAYMENTS	PAYMENT MILESTONE FOR SUPPLY PRICE OF SERVICES
DRIVERS TRAINING PROGRAM	▪ One hundred (100%) percent the Supply Price for Services payable for Drivers Training Program upon successful completion of Driver Training Program.

MAINTENANCE TRAINING PROGRAM	▪ Fifty (50%) percent of the Supply Price for Services payable for Maintenance Training Program upon successful completion of Phase 1 (eight (8) months from Notice to proceed) of the Maintenance Training Program; and ▪ Fifty (50%) percent of the Supply Price for Services payable for Maintenance Training Program upon successful completion of Phase 2 (prior to issuance of the First Release Certificate) of Maintenance training Program.
MAINTENANCE SUPERVISION	▪ Supply Price for Services payable for Maintenance Supervision on a quarterly basis at the monthly rate subject to satisfactory performance of the Maintenance Supervision for the relevant quarter as certified in writing by the Procuring Agency.

- A component of the Supply Price for Goods shall be paid through an LC (Letter of Credit), in USD
- B component of the Supply Price for Services shall be paid in PR, outside the LC payments.

Note: As per the Section 11.6(b) of the draft Contract the Letter of Credit shall be established by the Procuring Agency within forty-five (45) days of the issuance of the Notice to Proceed provided the Manufacturer has delivered to the Procuring Agency the Advance Payment Bond in accordance with the terms of the Contract.

SCHEDULE 8 –RELEASE CERTIFICATE CRITERIA

Release Certificate Criteria means each of the following criteria:

(a) the Goods Warranty Period and, as applicable, the Extended Warranty Period, and the Serial Defects Notification Period for all Supply has elapsed in terms of this Contract;

(b) the Manufacturer has settled and paid the Procuring Agency in full all amounts that are due to the Procuring Agency in respect of the time period on or prior to the expiry of the Goods Warranty Period and, as applicable, the Extended Warranty Period, and the Serial Defects Notification Period;

(c) the Manufacturer has performed and completed the Training Programme, Vehicle Registration Formalities and Maintenance Supervision that are contemplated under this Contract to be performed by the Manufacturer in accordance with the Applicable Standards and have demonstrated to be Fit for Purpose;

(d) the Manufacturer has performed all Manufacturer's Obligations including Goods Warranty Obligations free of Defects and Deficiencies, that are contemplated under this Contract to be performed by the Manufacturer during the Goods Warranty Period and, as applicable, the Extended Warranty Period and the Serial Defects Notification Period;

(e) the Manufacturer has provided the stock of Spare Parts contemplated under the Contract which are to be provided to the Vehicle Operating Company (**VOC**) by the Manufacturer at the end of Maintenance Supervision period.

(f) the Manufacturer's Obligations and Goods Warranty Obligations, during the Goods Warranty Period and, as applicable, the Extended Warranty Period, and the Serial Defects Notification Period, have demonstrated to be Fit for Purpose; and

(g) if further changes to any Manufacturer's Documents become necessary as a result of matters arising during the Goods Warranty Period and, as applicable, the Extended Warranty Period and the Serial Defects Notification Period, the Manufacturer and has submitted updated versions amendments of the same to the Procuring Agency.

SCHEDULE 9 – FINAL RELEASE CERTIFICATE CRITERIA

Final Release Certificate Criteria means each of the following criteria:

(a) the Bus Battery and Structure Warranty Period and, as applicable, the Extended Warranty Period for the Bus Battery and Structure has elapsed in terms of this Contract;

(b) the Manufacturer has settled and paid the Procuring Agency in full all amounts that are due to the Procuring Agency in respect of the time period on or prior to the expiry of the Bus Battery and Structure Warranty Period and, as applicable, the Extended Warranty Period;

(c) the Manufacturer has performed all Manufacturer's Obligations including Bus Battery and Structure Warranty Obligations free of Defects or Deficiencies, that are contemplated under this Contract to be performed by the Manufacturer during the Bus Battery and Structure Warranty Period and, as applicable, the Extended Warranty Period;

(d) the Manufacturer's Obligations and Bus Battery and Structure Warranty Obligations, during the Bus Battery and Structure Warranty Period and, as applicable, the Extended Warranty Period have demonstrated to be Fit for Purpose; and

(e) if further changes to any Manufacturer's Documents become necessary as a result of matters arising during the Bus Battery and Structure Warranty Period and, as applicable, the Extended Warranty Period, the Manufacturer and has submitted updated versions amendments of the same to the Procuring Agency.

SCHEDULE 10 – LIST OF SUB-SUPPLIERS

[•]

SCHEDULE 11 – FORM OF RETENTION MONEY BOND

DATED:
[•]

To:
[●]
[*Insert Address*]

RETENTION MONEY BOND NO. ..... (hereinafter referred to as the "**Bond**")

We, [●][9], being the Bond issuing bank (the "**Issuing Bank**") understand that the following parties have entered into an agreement entitled the "**MANUFACTURING & SUPPLY CONTRACT**" (the **"Contract"**), on and about the date hereof:

(a) **PUNJAB MASSTRANSIT AUTHORITY,** a statutory body established by the Government of Punjab duly organized and existing under the laws of Pakistan, with its principal office located at [*insert address*] (the "**Procuring Agency**", which expression shall include its successors-in-interest and permitted assigns) and

(b) **[●]**, a company incorporated under the laws of **[●]** with its registered office located at **[●]** (the **"Manufacturer"**).

Further, we understand that pursuant to the Contract, the Manufacturer is required to provide the Procuring Agency with a retention money bond equal to **USD [●] (US Dollars [●] Only)** and maintain the same in accordance with the terms of the Contract.

The above premised, we (the Issuing Bank) hereby undertake irrevocably and unconditionally on demand to pay to the Procuring Agency, without any notice, reference or recourse to the Manufacturer or to any other entity or without any recourse or reference to the Contract or any other document, agreement, instrument or deed, any sum or sums (or any part thereof) equivalent in aggregate up to but not exceeding a maximum amount of:

USD [•] (US Dollars [•] Only)
(the "**Guaranteed Amount**")

at sight and immediately, however not later than [•] ([•]) business days from the date of receipt of the Procuring Agency's first written demand (the "**Demand**") at the Issuing Bank's offices located at [•] such Demand stating:

(a) that the Manufacturer is in breach of its obligations towards the Procuring Agency:

(i) specifying the breach and, if applicable, requesting the Manufacturer to cure the breach;

(ii) if applicable, certifying that the Manufacturer has failed to remedy the breach within the period allowed for remedial action;

[9] Insert name of Issuing Bank.

(b) the total amounts demanded; and

(c) the details of the account in which the total amounts demanded are to be credited.

A Demand shall only be honoured by us in the case of a written Demand, if it is made by and bears the signature of an authorised officer or other representative of the Procuring Agency.

We, the Issuing Bank, shall unconditionally honour a Demand hereunder made in compliance with this Bond at sight and immediately on the date of receipt of the Demand, as stated earlier, and shall transfer the amount specified in the Demand to the bank account, as notified in the Demand, in immediately available and freely transferable funds in the currency of this Bond, free and clear of and without any set-off or deduction for or on account of any present or future taxes, levies, imposts, duties, charges, fees, deductions or withholdings of any nature whatsoever and by whomsoever imposed.

This Bond shall come into force and shall become automatically effective upon its issuance.

After having come into force, this Bond and our obligations hereunder will expire on the earlier of:

(i) [•] (the "**Retention Money Bond Expiry Hard Date**") provided that, in the event that the Issuing Bank has receipt of the Demand on or immediately prior to the Retention Money Bond Expiry Hard Date, the Issuing Bank shall honour that Demand;

(ii) when the aggregate of all payments made by us under this Bond equal the Guaranteed Amount; or

(iii) the Guaranteed Amount is reduced to zero in terms specified below.

Upon expiry, this Bond shall be returned to the Manufacturer. Multiple Demands may be made by the Procuring Agency under this Bond but our aggregate liability will be restricted up to the Guaranteed Amount.

The Guaranteed Amount will be reduced in accordance with the Contract upon the Manufacturer's presentation to us of the relevant commercial invoice, duly signed and approved by the Procuring Agency, clearly stating the amount by which the Guaranteed Amount is to be reduced.

We hereby agree that any amendment, renewal, extension, modification, compromise, release or discharge by mutual agreement by the Procuring Agency, the Manufacturer or any other entity of any document, agreement, instrument or deed shall not in any way impair or affect our liabilities hereunder and maybe undertaken without notice to us and without the necessity for any additional endorsement, consent or guarantee by us.

This Bond for its validity period shall not be affected in any manner by any change in our constitution or of the Manufacturer's constitution or of their successors and assignees and this Bond shall be legally valid, enforceable and binding on each of their successors and permitted assignees.

All references to any contract, agreement, deed or other instruments or documents are by way of reference only and shall not affect our obligations to make payment under the terms of this Bond.

If one or more of the provisions of this Bond are held or found to be invalid, illegal, or unenforceable for any reason whatsoever, in any respect, any such invalidity, illegality, or unenforceability of any provision shall not affect the validity of the remaining provisions of this Bond.

We hereby declare and confirm that under our constitution and applicable laws and regulations, we have the necessary power and authority, and all necessary authorizations, approvals and consents thereunder to enter into, execute, deliver and perform the obligations we have undertaken under this Bond, which obligations are valid and legally binding on and enforceable against us under the laws of Pakistan and under the laws of the jurisdiction where this Bond is issued. Further, that the signatory(ies) to this Bond is/are our duly authorized officer(s) to execute this Bond.

This Bond and all rights and obligations arising from this Bond shall be governed and construed in all respects in accordance with the laws of Pakistan. The courts in Pakistan shall have exclusive jurisdiction in respect of any dispute relating to any matter contained herein.

The issuance of this Bond is permitted according to the laws of Pakistan and the laws of the jurisdiction where this Bond is issued.

This Bond is subject to the Uniform Rules for Demand Guarantee, ICC Publication No.758. To the extent that there is any inconsistency between the terms of this Bond and the Uniform Rules for Demand Guarantees, ICC Publication No. 758, the terms of this Bond shall prevail.

EXECUTED & ISSUED
FOR & ON BEHALF OF THE GUARANTOR BANK

.....
NAME:
DESIGNATION:
DATED:

WITNESSES

WITNESS I	**WITNESS II**
.....	**.....**
NAME:	NAME
CNIC NO.:	CNIC NO.: