

# CHANDIGARH TRANSPORT UNDERTAKING

O/o Director Transport UT, Chandigarh, Plot No. 701, Industrial Area Phase-1, Chandigarh.

# NATIONAL COMPETITIVE BIDDING FOR SUPPLY, INSTALLATION & COMMISSIONING OF BUS DEPOT EQUIPMENTS UNDER SINGLE STAGE BIDDING THROUGH E-PROCUREMENT SYSTEM INCLUDING CMC OF 8 YEARS

*IFB No.: GEF-ESCBS/CTU/2016*28<sup>th</sup> September, 2016

Purchaser: Director,

**Chandigarh Transport Undertaking,** 

O/o Director Transport UT, Chandigarh Plot No. 701, Industrial Area Phase-1,

Chandigarh

Tel No: 0172-2679002

E-mail: <u>directorctuchd@gmail.com</u>

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#### NATIONAL COMPETITIVE BIDDING FOR

#### SUPPLY, INSTALLATION & COMMISSIONING OF BUS DEPOT EQUIPMENTS UNDER SINGLE STAGE

#### **E-PROCUREMENT SYSTEM**

#### Time Schedule for the bids:

Bid Reference	:	GEF-ESCBS/CTU/2016  Dated: 28 <sup>th</sup> September 2016
Date of commencement of downloading of bid document	:	28 <sup>th</sup> September, 2016 at 11:00 am onwards
Last date for seeking clarification if any.		13 <sup>th</sup> October, 2016
Pre-bid meeting	:	13 <sup>th</sup> October, 2016 at 11:30 am
Last date and time for bid submission/uploading of bid in e-procurement platform <a href="http://etenders.chd.nic.in">http://etenders.chd.nic.in</a>	:	4 <sup>th</sup> November, 2016 Upto 2:00 pm
Date and time of opening of technical bids	:	The bids will be opened online by the Authorized Officers on 4 <sup>th</sup> November, 2016 at 3:00 PM
Date and time of opening of Financial Bids	:	Will be intimated to technically responsive bidders
Place of opening of bids and address for communication	:	Chandigarh Transport Undertaking O/o Director Transport UT, Chandigarh Plot No. 701, Industrial Area Phase-1, Chandigarh

- Note: (1) In the event of the specified date of opening of bids being declared a holiday for the Purchaser, the bids shall be opened on the next working day at the same time and venue.
  - (2) Completed bids shall be uploaded on the e-procurement platform by the Bidders using their user ID and addressed to the **Director, CTU** in the manner described under Instructions to Bidders Section II of Bid Documents on or before the stipulated date & time.

**SECTION I: INVITATION FOR BIDS (IFB)** 

#### **SECTION I.**

### **INVITATION FOR BIDS (IFB)**

Date: 28<sup>th</sup> September 2016

IFB No.: GEF-ESCBS/CTU/2016

Grant No: TF018577

- 1. The Government of India has received Grant from the Global Environment Facility [GEF] administered by the World Bank towards the cost of Efficient and Sustainable City Bus Services [ESCBS], and it intends to apply part of the proceeds of this grant for payments under the agreement(s) resulting from this IFB No.: GEF-ESCBS/CTU/2016 Dated: 28<sup>th</sup> September 2016.
- 2. The **Director**, **Chandigarh Transport Undertaking (CTU)** serves as the implementing agency for the project and now invites bids under e-procurement system (Two cover) from eligible bidders for the supply, installation & commissioning of bus depot equipment mentioned in the bid documents.
- 3. The eligible Bidders may submit bids for any or all of the equipment mentioned in this document under Section VI- Schedule of Requirements. Bidders are advised to note the eligibility criteria as given in ITB Clause 4 & 5 and qualification criteria specified in Section III to qualify for the award of the contracts. The Bidders are required to submit bids consisting of documents/information as specified in clause 11 of ITB. The bid document is available on Chandigarh e-procurement portal <a href="http://etenders.chd.nic.in">http://etenders.chd.nic.in</a> and bids shall be submitted through e-portal only. Bids submitted in any other manner will be rejected. (Bidders are required to obtain Digital Signature from designated firms and then register with the Chandigarh e-procurement platform and submit bids by using their user ID and Digital Signature).
- 4. Bidders must provide Bid Security as specified in the bid document and pay the tender fee as per the guidelines of e-Portal.
- 5. Bids along with necessary enclosures must be uploaded to the web site <a href="http://etenders.chd.nic.in">http://etenders.chd.nic.in</a> as per the time schedule mentioned above and first cover (technical bids) will be opened at the specified venue on the stipulated date and time, in the presence of the bidders or their authorized representatives who wish to attend. If the office

happens to be closed on the scheduled date of opening of the bids as specified above, the bids will be opened on the next working day at the same time and venue.

- 6. The commercial bid of the bidders who are technically qualified/responsive will be opened through e-procurement portal on a date to be notified later.
- 7. For all other details the bidders can refer the bid documents.

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**PART 1 – BIDDING PROCEDURES** 

**SECTION I - Instructions to Bidders [ITB]** 

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	A. General			
1	Scope of Bid	1.1	The Purchaser indicated in the Bidding Data Sheet (BDS), issues these Bidding Documents for the supply, installation, testing and commissioning of Goods and Related Services incidental there to as specified in Section VI- Schedule of Requirements. The name and identification number of this National Competitive Bidding procurement are specified in the BDS. The name, identification, and equipment lists are provided in the BDS.	
		1.2	Throughout these Bidding Documents:	
		(a)	the term "in writing" means communicated in written form (e.g. by mail, e-mail, fax, telex, etc.) with proof of receipt;	
		(b)	If the context so requires, "singular" means "plural" and vice versa; and	
		(c)	"Day" means calendar day.	
2	Source of Funds	2.1	The Government of India (hereinafter called "Borrower") specified in the BDS has applied for or received financing (hereinafter called "funds") from the International Development Association (hereinafter called "the Bank") toward the cost of the project named in the BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract for which these Bidding Documents are issued.	
		2.2	Payments by the Bank will be made only at the request of the Borrower and upon approval by the Bank in accordance with the terms and conditions of the financing agreement between the Borrower and the Bank (hereinafter called the Loan Agreement), and will be subject in all respects to the terms and conditions of that Loan Agreement. The Loan Agreement prohibits a withdrawal from the loan account for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Bank, is prohibited by decision of the United Nations Security Council taken under <b>Chapter VII</b> of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Loan Agreement or have any claim to the grant.	

13	Fraud and Corruption	3.1	bene contr contr procu	ficiarion ractors racts, ureme	ank's policy to require that Borrowers (including es of Bank loans), as well as bidders, suppliers, and is and their subcontractors under Bank-financed observe the highest standard of ethics during the ent and execution of such contracts. In pursuance cy, the Bank:
			(a)		nes, for the purposes of this provision, the terms orth below as follows:
				(i)	"corrupt practice" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party <sup>2</sup> ;
				(ii)	"fraudulent practice" is 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;
				(iii)	"collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
				(iv)	"coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party <sup>3</sup> or the property of the party to influence improperly the actions of a party;
				(v)	"obstructive practice" is
					(aa) Deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or
					threatening, harassing or intimidating any

In this context, any action taken by a bidder, supplier, contractor, or a sub-contractor to influence the procurement process or contract execution for undue advantage is improper.

<sup>&</sup>lt;sup>2</sup> "Another party" refers to a public official acting in relation to the procurement process or contract execution]. In this context, "public official" includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

a "party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.

<sup>&</sup>quot;parties" refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non-competitive levels.

<sup>&</sup>lt;sup>5</sup> a "party" refers to a participant in the procurement process or contract execution.

		party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or  (bb) Acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under sub-clause 3.1 (e) below.
		(b) will reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question;
		(c) will cancel the portion of the loan allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of the loan engaged in corrupt, fraudulent, collusive, or coercive practices during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur;
		(d) will sanction a firm or individual, including declaring ineligible, either indefinitely or for a stated period of time, to be awarded a Bank-financed contract if it at any time determines that the firm has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for, or in executing, a Bank-financed contract; and
		(e) will have the right to require that a provision be included in bidding documents and in contracts financed by a Bank loan, requiring bidders, suppliers, and contractors and their sub-contractors to permit the Bank to inspect their accounts and records and other documents relating to the bid submission and contract performance and to have them audited by auditors appointed by the Bank.
		3.2 Furthermore, Bidders shall be aware of the provision stated in Sub-Clause 35.1 (a) (iii) of the General Conditions of Contract.
4	Eligible Bidders	4.1 A Bidder, and all parties constituting the Bidder, may have the nationality of any country, subject to the restrictions specified in <b>Section V, Eligible Countries</b> . A Bidder shall be

		eligibility satisfactory to the Purchaser, as the Purchaser shall reasonably request.
	4.6	Bidders shall provide such evidence of their continued
	4.5	Government-owned enterprises in the Borrower's Country shall be eligible only if they can establish that they (i) are legally and financially autonomous, (ii) operate under commercial law, and (iii) are not a dependent agency of the Purchaser or Borrower or Sub-Borrower.
	4.4	A firm that has been determined to be ineligible by the Bank in relation to the Bank Guidelines On Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants shall not be eligible to be awarded a contract.
	4.3	A Bidder that is under a declaration of ineligibility by the Bank in accordance with <b>ITB Clause 3</b> , at the date of contract award, shall be disqualified. The list of debarred firms is available at the electronic address specified in the <b>BDS</b> .
		(b) Submit more than one bid in this bidding process, except for alternative offers permitted under ITB Clause 13. However, this does not limit the participation of subcontractors in more than one bid;
		(a) are or have been associated in the past, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under these Bidding Documents; or
	4.2	deemed to have the nationality of a country if the Bidder is a citizen or is constituted, incorporated, or registered and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including Related Services.  A Bidder shall not have a conflict of interest. All bidders found to have conflict of interest shall be disqualified. Bidders may be considered to have a conflict of interest with one or more parties in this bidding process, if they:

	any country in accordance with Section V, Eligible Countries.
5.2	For purposes of this Clause, the term "goods" includes commodities, raw material, machinery, equipment, and industrial plants; and "related services" includes services such as insurance, installation, training, and initial maintenance.
5.3	The term "origin" means the country where the goods have been mined, grown, cultivated, produced, manufactured or processed; or, through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

	B. Contents of Bidding Documents			
6	Sections Of Bidding Documents	6.1	The Bidding Documents consist of Parts 1, 2, and 3, which include all the Sections indicated below, and should be read in conjunction with any Addendum issued in accordance with ITB Clause 8.  PART 1 Bidding Procedures  • Section I. Instructions to Bidders (ITB)	
			<ul> <li>Section II. Bidding Data Sheet (BDS)</li> <li>Section III. Evaluation and Qualification Criteria</li> <li>Section IV. Bidding Forms</li> <li>Section V. Eligible Countries</li> </ul>	
			<ul> <li>PART 2 Supply Requirements</li> <li>Section VI. Schedule of Requirements</li> <li>PART 3 Contract</li> </ul>	
			<ul> <li>Section VII. General Conditions of Contract (GCC)</li> <li>Section VIII. Special Conditions of Contract (SCC)</li> <li>Section IX. Contract Forms</li> </ul>	
		6.2	<ul> <li>Section X. Bid Security Amount</li> <li>The Invitation for Bids issued by the Purchaser is not part of the Bidding Documents.</li> </ul>	
		6.3	The Purchaser is not responsible for the completeness of the Bidding Documents and their addendum, if they were not obtained directly from the Purchaser.	
		6.4	The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents. Failure to furnish all information or documentation required by the Bidding Documents may result in the rejection of the bid.	
7	Clarification Of Bidding Documents	7.1	A prospective Bidder requiring any clarification of the Bidding Documents shall notify in written to the authority inviting the bid as <b>specified in the BDS</b> . The authority	

8	Amendment Of Bidding Documents	8.1	inviting the bid will respond to any request(s) for clarification received earlier than 10 days prior to the deadline for submission of bids. Description of clarification sought and the response of the authority inviting the bid if found necessary by the purchaser will be uploaded for information of the other bidders without identifying the source of request for clarification. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under ITB Clause 8 and ITB Sub-Clause 24.2.  At any time prior to the deadline for submission of bids, the Purchaser may amend the Bidding Documents by issuing addendum. The addendum will appear on the web page of the website specified in the BDS and it will be the sole responsibility of the bidder to check the bidding website as specified in BDS from time to time.
		8.2	Any addendum issued shall be part of the Bidding Documents and shall be notified as Addendum /
			Corrigendum in the e-procurement portal which shall be
		8.3	binding on all prospective bidders.  To give prospective Bidders reasonable time in which to take
			an addendum into account in preparing their bids, the Purchaser may, at its discretion, extend the deadline for the
			submission of bids, pursuant to ITB Sub-Clause 24.2. This
			shall be notified in the e-procurement portal as above.
			Preparation of Bids
9	Cost of Bidding	9.1	The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Purchaser shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
10	Language of Bid	10.1	The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, shall be written in English language.
11	<b>Documents Comprising</b>	11.1	The Bid shall comprise the following, the scanned copies of
	the Bid		which shall be uploaded on the e-procurement platform.  11.1.1 Technical Bid
		(a) (b) (c) (d) (e)	Technical Bid submission form duly completed; Bid processing fee and Bid Security deposit details in accordance with ITB Clause 21, in the form as given in Section IV; written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB Clause 22; documentary evidence in accordance with ITB Clause 16 establishing the Bidder's eligibility to bid; documentary evidence in accordance with ITB Clause 17,
		(-/	that the Goods and Related Services to be supplied by the Bidder are of eligible origin;

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		(f) documentary evidence in accordance with <b>ITB Clauses 18 and 30</b> , that the Goods and Related Services conform to the Bidding Documents;
		(g) documentary evidence in accordance with <b>ITB Clause 19</b> establishing the Bidder's qualifications to perform the
		contract if its bid is accepted; and (h) Manufacturers authorization form in the prescribed Form
		<ul><li>as given in Section IV;</li><li>(i) Any other document required as specified in the BDS.</li></ul>
		11.1.2 Commercial Bid
		(a) Financial Bid Submission form and applicable price schedules in accordance with ITB clauses 12, 14 and 15.
		<ul><li>11.2 The following documents shall be submitted by post/courier to the Purchaser for verification and scrutiny before the last date of submission:</li><li>(a) Original Power of Attorney;</li></ul>
		<ul> <li>(b) Original Bid security instruments such as Demand Draft;</li> <li>(c) Original affidavit vouching for the correctness of the information furnished and documents uploaded;</li> <li>(d) Original Undertaking.</li> </ul>
		The Letter of Demand Draft etc. would be checked for their genuineness, adequacy with respect to amount, validity and acceptability. The bids of only those bidders who have produced the originals as above for verification and review and found acceptable and those who have paid the stipulated bid processing fee and adequate bid security in acceptable instruments would be opened at the appointed time to be notified on the e-procurement portal.
		11.3 In case of discrepancy between the uploaded documents and the originals the original shall prevail.
12	Bid Submission Form and Price Schedules	12.1 The Bidder shall complete the Bid Submission Form using the form furnished in <b>Section IV</b> , Bidding Forms. This form must be completed without any alterations to its format, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested. The completed Bid submission forms shall be uploaded through e-procurement portal.
13	Alternative Bids	13.1 Unless otherwise <b>specified in the BDS</b> , alternative bids shall
		not be considered.
14	Bid Prices and Discounts	14.1 All lots and items must be listed and priced separately in the
		Price Schedules as per Financial Form attached.  14.2 The Bidder shall quote any unconditional discounts as
		indicate in the Bid Data Sheet.
		14.3 The terms EXW and other similar terms shall be governed by

- the rules prescribed in the current edition of Incoterms, published by The International Chamber of Commerce, as specified in the BDS.
- 14.4 Prices shall be quoted as specified in the Price Schedule included in **Section IV**, Bidding Forms. The dis-aggregation of price components is required solely for the purpose of facilitating the comparison of bids by the Purchaser. This shall not in any way limit the Purchaser's right to contract on any of the terms offered. In quoting prices, the Bidder shall be free to use transportation through carriers registered in any eligible country, in accordance with **Section V** Eligible Countries. Similarly, the Bidder may obtain insurance services from any eligible country in accordance with **Section V** Eligible Countries. Prices shall be entered in the following manner:
  - (a) For Goods:
  - the price of the Goods quoted EXW (ex-works, exfactory, ex warehouse, ex showroom, or off-the-shelf, as applicable), including all duties (customs, excise etc.) and sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of the Goods;
  - (ii) any VAT, sales tax and other taxes which will be payable on the Goods if the contract is awarded to the Bidder; and
  - (iii) The price for inland transportation, insurance, and other local services required to convey the Goods to their final destination (Project Site) **specified in the BDS.**
  - (b) for the Related Services, other than inland transportation and other services required to convey the Goods to their final destination, whenever such Related Services are specified in the Schedule of Requirements:
  - (i) The price of each item comprising the Related Services (inclusive of any applicable taxes).
  - (c) Bidders may like to ascertain availability of excise duty exemption benefits, available for contracts financed under World Bank Credits/ Loans. They are solely responsible for obtaining such benefits, which they have considered in their bid and in case of failure to receive such benefits for reasons whatsoever, the Purchaser will not compensate the bidder.

Where the bidder has quoted taking into account such benefits, he must give all information required for issue of necessary Certificates in terms of the Central Excise Notification -108/95 along with his bid in form

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		14.7	at <b>S. No. 8</b> of <b>Section VI</b> . Where the Purchaser issues such Certificates, Excise Duty will not be reimbursed separately.  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 <b>BDS.</b> A Bid submitted with an adjustable price quotation
		14.8	shall be treated as non-responsive and shall be rejected, pursuant to ITB Clause 30. However, if in accordance with the BDS, prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract, a bid submitted with a fixed price quotation shall not be rejected, but the price adjustment shall be treated as zero. If so indicated in ITB Sub-Clause 1.1, bids are being invited for individual contracts (lots) or for any combination of contracts (packages). Prices quoted shall correspond to 100 % of the items specified for each lot and to 100% of the quantities specified for each item of a lot. Bidders wishing to offer any price reduction (discount) for the award of more than one Contract shall specify the applicable price reduction in accordance with ITB Sub-Clause 14.4 provided the bids for all lots are submitted and opened at the same
15	Currencies of Bid	15.1	time. The Bidder shall quote in Indian Rupees only.
13	Currencies of bid	15.1	The bluder shall quote in indian rupees only.
16	Documents Establishing	16.1	To establish their eligibility in accordance with ITB Clause 4,
	The Eligibility of the		Bidders shall complete the Bid Submission Form, included in
	Bidder		Section IV, Bidding Forms.
17	Documents Establishing	17.1	To establish the eligibility of the Goods and Related Services
	The Eligibility of the		in accordance with <b>ITB Clause 5</b> , Bidders shall complete the
	Goods and Related		country of origin declarations in the Price Schedule Forms,
	Services		included <b>in Section IV</b> , Bidding Forms.

18	Documents Establishing	18.1	To establish the conformity of the Goods and Related
	the Conformity of the	-0.1	Services to the Bidding Documents, the Bidder shall furnish
	Goods and Related		as part of its Bid the documentary evidence that the Goods
	Services		conform to the technical specifications and standards
			specified in <b>Section VI</b> , Schedule of Requirements.
		18.2	The documentary evidence may be in the form of literature,
			drawings or data, and shall consist of a detailed item by item
			description of the essential technical and performance
			characteristics of the Goods and Related Services along with
			the makes, demonstrating substantial responsiveness of the
			Goods and Related Services to the technical specification,
			and if applicable, a statement of deviations and exceptions
		10.2	to the provisions of the Schedule of Requirements.
		18.3	The Bidder shall also furnish 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 after the CMC period.
		18.4	Standards for workmanship, process, material, and
			equipment, as well as references to brand names or
			catalogue numbers specified by the Purchaser in the
			Schedule of Requirements, are intended to be descriptive
			only. The Bidder may offer other standards of quality, brand
			names, and/or catalogue numbers, provided that it
			demonstrates, to the Purchaser's satisfaction, that the
			substitutions ensure substantial equivalence or are superior
			to those specified in the Schedule of Requirements.
19	Documents Establishing	19.1	The documentary evidence of the Bidder's qualifications to
	the Qualifications of the		perform the contract if its bid is accepted shall establish to
	Bidder		the Purchaser's satisfaction:
			(a) (i) that, if <b>required in the BDS</b> , a Bidder that does not
			manufacture or produce the Goods it offers to
			supply shall submit the Manufacturer's
			Authorization using the form included in <b>Section IV</b> ,
			Bidding Forms to demonstrate that it has been duly
			authorized by the manufacturer or producer of the
			Goods to supply these Goods in the Purchaser's
			Country;
			(ii) Supplies for any particular item in each schedule of
			the bid should be from one manufacturer only. Bids
			from agents offering supplies from different
			manufacturers for the same item of the schedule in
			the bid will be treated as non-responsive.
			(b) that the Didden marks and of the configuration in
			(b) that, the Bidder meets each of the qualification criterion
			specified in <b>Section III</b> , Evaluation and Qualification

			Criteria.
			(c) Bids from Joint Ventures are not acceptable unless specified in the BDS
20	Period of Validity of Bids	20.1	Bids shall remain valid for the period <b>specified in the BDS</b> after the bid submission deadline date prescribed by the Purchaser. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.
		20.2	In exceptional circumstances, prior to the expiration of the bid validity period, the Purchaser may request bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB Clause 21, it shall also be extended for a corresponding period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its bid, except as provided in ITB Sub-Clause 20.3.
		20.3	In the case of fixed price contracts, if the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial bid validity, the Contract price shall be adjusted (if required by the purchaser) as by the factor [value of factor stated in BDS] for each week or part of week that has elapsed from the expiration of the initial bid validity to the date of notification of award to the successful bidder. Bid evaluation shall be based on the Bid Price without taking into consideration the above correction.
21	Bid Processing fee and Bid Security	21.1	The Bidder shall furnish as part of its bid, the requisite bid processing fee and a Bid Security as <b>specified in the BDS.</b>
		21.2	The requisite bid processing fee has to be paid in the method as detailed in Clause 21.3 hereunder or through financial instruments as detailed in Clause 21.5 hereunder.
		21.3	The Bid Security shall be in the amount specified in the BDS and denominated in Indian Rupees and scanned copy will be uploaded on the e-procurement portal and hard copy to be submitted by post or hand in the office of Director Transport, Plot No. 701, Industrial Phase-I, Chandigarh Transport Undertaking Chandigarh on or before the last date of closing of tender. The Bid Security shall be paid in any of the following payment methods:
			i. Demand Draft.
		21.4	be substantially in accordance with one of the forms of Bid Security included in <b>Section IV</b> , Bidding Forms, or other form approved by the Purchaser prior to bid submission

		21.7	be submitted in its original form; copies will not be accepted; 21.6 Remain valid for a period of 45 days beyond the validity period of the bids, as extended, in accordance with ITB Clause 20.2.  Bid Security is required in accordance with ITB Sub-Clause 21.1, any bid not accompanied by a substantially responsive Bid Security in accordance with ITB Sub-Clause 21.1, shall be rejected by the Purchaser as non-responsive. If an acceptable Bid Security is not received, the bid shall be rejected by the Purchaser as non-responsive.  The Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing
			of the Performance Security pursuant to ITB Clause 44.
			The Bid Security may be forfeited:
			(a) if a Bidder
			<ul> <li>(i) withdraws its bid during the period of bid validity specified by the Bidder on the Technical Bid submission Form, except as provided in ITB Sub-Clause 20.2;</li> <li>(b) if the successful Bidder fails to:</li> </ul>
			(i) sign the Contract in accordance with ITB Clause 43;
			(ii) Furnish a Performance Security in accordance with ITB Clause 44.
		21.10	If a bid security is not required in the BDS, and
		(	(a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bid Form, except as provided in ITB 20.2, or
			<ul> <li>if the successful Bidder fails to: sign the Contract in accordance with ITB 43; or furnish a performance security in accordance with ITB 44;</li> </ul>
			The Borrower may, <b>if provided for in the BDS</b> , declare the Bidder disqualified to be awarded a contract by the Purchaser for a period of time <b>as stated in the BDS</b> .
22	Format and Signing of Bid		The digital signature shall be obtained by the bidder from the designated companies as given in the e-procurement portal and then get registered on the e-procurement portal. The bidder shall upload the bid along with all the requisite

		documents through e-procurement platform by using the
		digital signature. Any other system functionality shall be <b>as specified in the BDS.</b> Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialled by the person signing the Bid.
	D. S	ubmission and Opening of Bids
23	Submission, Sealing and Marking of Bids	23.1 The bidders shall upload the bids in two (Technical Bids comprising of all required Documents as listed in ITB Clause 11.1.1 and Commercial Bid comprising of all documents as listed in ITB Clause 11.1.2 through e-procurement platform only. No other mode of submission is permitted.
		Technical and Commercial Bid Submission Forms and other documents as detailed in <b>ITB Clause 11.1.2</b> shall be addressed to Purchaser before uploading.
		Only the originals of Power of Attorney , the bid security (if it is in the form of Demand Draft) and the Original affidavit vouching for the correctness of the information furnished and documents uploaded shall be delivered by post/courier to the address mentioned in BDS, within the time period , specified in BDS.
		The bidder is solely responsible to ensure submission of the requisite documents within the stipulated period and the Purchaser will not be responsible for postal/courier delays.  (a) The envelope containing the original documents shall bear the Project Name, Invitation for Bids (IFB) title and number.
		(b) bear the specific identification of this bidding process indicated in ITB 1.1 and any additional identification marks as specified in the BDS; and
		<ul> <li>(c) Bear a warning not to open before the time and date for bid opening, in accordance with ITB Sub-Clause 27.1.</li> <li>23.3 Telex, Cable or Facsimile bids will be rejected as non-</li> </ul>
		responsive. Bids submitted by any other means other than through e-procurement portal of Government of Karnataka shall be rejected.
24	Deadline for Submission / Uploading of Bids	24.1 Bids must be uploaded by the Bidders no later than the date and time <b>Specified in the BDS</b> through the e-procurement platform. The e-procurement platform will not accept the bids after the stipulated date and time (as per the time of the e-procurement platform).
		24.2 The Purchaser may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents in accordance with <b>ITB Clause 8</b> , in which case all rights and obligations of the Purchaser and Bidders previously subject

			to the deadline shall thereafter be subject to the deadline as extended. The amendment/notification shall be notified in the e-procurement platform.
25	Late Bids	25.1	Bids cannot be uploaded by the Bidders after the deadline for submission / uploading of bids (as per the e-procurement server time) prescribed by the Purchaser pursuant to ITB Clause 24.
26	Withdrawal, Substitution, and Modification of Bids	26.1	In the "My Bids" Section of the e-procurement portal, the bidder can view the status of their bids and decrypt bit (i.e. in case where the bidder has chosen to encrypt the tender using his own public key) for modification or withdrawal before the due date & time for uploading.
		26.2	Bidders may cancel/modify their bids online before the deadline for submission of bids. For modification of bids, the bidder need not make any additional payment towards the cost of bidding process. For bid modification and consequential re-submission, the bidder is required to cancel his bid submitted earlier (only the financial bid is cancelled. All the uploaded documents would be there). The last modified bid submitted by the bidder within the bid submission time shall be considered as the bid. For this purpose, modification/withdrawal by other means will not be accepted. In on-line system of bid submission the modification/cancelation is allowed any number of times. The bidders may cancel its bid by clicking on the cancel button in the My Bids Section before the deadline for submission of bids, however, if the bid is cancelled and not r-submitted within the stipulated time on the last date of submission of bids, it would deemed withdrawn.
		26.3	No bid may be modified/ withdrawn online after the deadline for submission of bids.
		26.4	Withdrawal or modification of a Bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in <b>Clause20</b> above or as extended pursuant to <b>Clause 20</b> is not allowed in the e-procurement system. If a bidder does the same through any other medium, then it may result in the forfeiture of the bid security pursuant to <b>Clause 21.11</b>
27	Bid Opening	27.1	The Purchaser will open/unlock the Technical Bids of all bids uploaded through e-procurement platform in the presence of the bidders representations who chose to attend at the stipulated place, date and time as given in BDS.
			The Bidders representatives who are present shall produce

		1	
			authorization letter and shall sign a register evidencing their attendance.
		27.2	The Bidders names, the sufficiency or otherwise of the bid security, the bid prices, discounts and alternative offers and such other details as the Purchaser, at its discretion, may consider appropriate will be announced at the opening. No bids shall be rejected at the bid opening.
		27.3	The Purchaser shall prepare a record of the Bid opening that shall include, as a minimum: the name of the Bidder; alternative offers if they were permitted; and the presence or absence of a Bid Security, if one was required. The Bidders' representatives who are present shall be requested to sign the attendance sheet. A copy of the record shall be distributed to all Bidders who submitted bids in time, and posted online.
	E. Eva	aluati	on and Comparison of Bids
28	Confidentiality	28.1	Information relating to the examination, evaluation, comparison, and post qualification of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until publication of the Contract Award.
		28.2	Any effort by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and post qualification of the bids or contract award decisions may result in the rejection of its Bid.
		28.3	Notwithstanding <b>ITB Sub-Clause 28.2</b> , from the time of bid opening to the time of Contract Award, if any Bidder wishes to contact the Purchaser on any matter related to the bidding process, it should do so in writing.
29	Clarification of Bids	29.1	To assist in the examination, evaluation, comparison and post-qualification of the bids, the Purchaser may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder in respect to its Bid and that changes the substance of the Bidder price of the bid shall not be considered. The Purchaser's request for clarification and the response shall be in writing. No change in the prices or substance of the Bid shall be sought, offered, or permitted.
30	Responsiveness of Bids	30.1	The Purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself.
		30.2	A substantially responsive Bid is one that conforms to all the terms, conditions, and specifications of the Bidding

			Documents without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:
		(a)	affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
		(b)	limits in any substantial way, inconsistent with the Bidding Documents, the Purchaser's rights or the Bidder's obligations under the Contract; or
		(c)	If rectified would unfairly affect the competitive position of other bidders presenting substantially responsive bids.
		30.3	Bids from Agents, without proper authorization from the manufacturer as per <b>Section IV</b> , shall be treated as non-responsive.
		30.4	If a bid is not substantially responsive to the Bidding Documents, it shall be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.
31	Nonconformities, Errors, and Omissions	Provid	ded that a Bid is substantially responsive, the Purchaser may waive any nonconformities or omissions in the Bid that do not constitute a material deviation.31.1 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
31		Provide 32.1	waive any nonconformities or omissions in the Bid that do not constitute a material deviation.31.1 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.  The Purchaser shall examine the documents contained in technical Bid Confirm that all the documents requested in ITB Clause 11.1.1 have been provided, and to determine the
	and Omissions  Preliminary Examination		waive any nonconformities or omissions in the Bid that do not constitute a material deviation.31.1 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.  The Purchaser shall examine the documents contained in technical Bid Confirm that all the documents requested in
	and Omissions  Preliminary Examination	32.1	waive any nonconformities or omissions in the Bid that do not constitute a material deviation.31.1 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.  The Purchaser shall examine the documents contained in technical Bid Confirm that all the documents requested in ITB Clause 11.1.1 have been provided, and to determine the completeness of each document submitted.  The Purchaser shall confirm that the following documents and information have been provided in the Bid. If any of these documents or information is missing, the offer shall be

		bidder has bid for more than one line item of equipment and if the Bid Security amount furnished is inadequate for all the items of equipment bid, the Purchaser shall take the bids into account only to the extent the bids are secured. For this purpose, the extent to which, the bids are secured shall be determined by evaluating, the requirement of bid security to be furnished for the items of equipment in the bid in the serial order of the Schedule of Requirement (Section VI) of the bid document.  (c) Bid validity in accordance with ITB Clause 20.1. A Bid valid for shorter period than required shall be rejected.  (d) Authorization from the Manufacturer in the format as given in Section IV, in case the Bidder is not the Manufacturer but is an Agent.
33	Examination of Terms and Conditions; Technical Evaluation	33.1 The Purchaser shall examine the bid to confirm that the Bidder has accepted all terms and conditions specified in GCC and the SCC without material deviations or reservation. Deviations from or objections or reservations to critical provisions such as those concerning Performance Security (GCC Clause 18). Comprehensive Maintenance (GCC Clause 28), Force Majeure (Clause 32), Limitation of liability (GCC Clause 30), Governing law (GCC Clause 9) and Taxes & Duties (GCC Clause 17) will be deemed to be a material deviation. The Purchaser's determination of a bid's responsiveness is to
		be based on the contents of the bid itself without recourse to extrinsic evidence.  33.2 The Purchaser shall evaluate the Technical Bid of each bidder and determine whether the bid (a) is substantially responsive as per ITB clause 30, (b) meets the eligibility criteria defined in ITB Clauses 4 and 5 (c) meets substantially the required technical specifications specified in Section VI schedule of requirements; (d) meets the stipulated minimum qualification criteria specified at Section III and is qualified to perform the contract satisfactorily. The determination will take into account the Bidder's financial, technical and production capabilities. It will be based upon an examination of the documentary evidence of the bidder's qualification uploaded by the bidder pursuant to ITB Clause 11.1.1 (as well as such other information as the Purchaser deems necessary and appropriate) as also that the technical aspects of the Bid submitted in accordance with ITB Clause 18, to confirm that all requirements specified in Section VI, Schedule of Requirements of the Bidding Documents have been met without any material deviation or reservation.

	After the examination of the terms and conditions and the technical evaluation, the Purchaser will draw out a list of responsive and technically qualified bids, which can perform the contract satisfactorily and upload the list on the e-procurement portal for information of the bidders.  Opening of the Commercial bid of responsive and qualified bidders: The Purchaser will inform all the responsive and technically qualified bidders through e-procurement portal the date and time of opening of the Commercial bids. In this regard no separate intimation shall be made by the Purchaser.
Conversion to Single Currency	Not used
Domestic Preference	Not used
Evaluation of Bids	<ul> <li>36.1 The Purchaser shall evaluate each item separately. No bid will be considered if the complete requirement as given in the Schedule of Requirement (Section VI) is not included in the Bid. The bidders are allowed the option to bid for any one or more items and to offer discounts for more than one item. These discounts will be taken into account in the evaluation of the bids so as to determine the bid or combination of the bids offering the lowest offering the lowest evaluated cost for the Purchaser in deciding the awards (s) for each item in terms of provisions of ITB Clause 14.8.</li> <li>36.2 To evaluate a Bid, the Purchaser shall only use all the factors, methodologies and criteria defined in ITB Clause 36. No other criteria or methodology shall be permitted.</li> <li>36.3 To evaluate a Bid, the Purchaser shall consider the following: <ul> <li>(a) Evaluation will be done for Item as specified in the BDS; and the Bid Price as quoted in accordance with clause 14;</li> <li>(b) price adjustment due to discounts offered in accordance with ITB Sub-Clause 14.4;</li> <li>(c) adjustments due to the application of the evaluation criteria specified in the BDS from amongst those set out in Section III, Evaluation and Qualification Criteria;</li> </ul> </li> <li>36.4 The Purchaser's evaluation of a bid will evaluate and not taken.</li> </ul>
	36.4 The Purchaser's evaluation of a bid will exclude and not take
	Currency Domestic Preference

			into account:
			(a) In the case of Goods manufactured in India or goods of foreign origin already located in India, vat, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Bidder;
			(b) Any allowance for price adjustment during the period of execution of the contract, if provided in the bid.
		36.5	The Purchaser's evaluation of a bid may require the consideration of other factors, in addition to the Bid Price quoted in accordance with ITB Clause 14. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services. The effect of the factors selected, if any, shall be expressed in monetary terms to facilitate comparison of bids, unless otherwise specified in Section III, Evaluation and Qualification Criteria. The factors, methodologies and criteria to be used shall be as specified in ITB 36.3
		36.6	If so <b>specified in the BDS</b> , these Bidding Documents shall allow Bidders to quote separate prices for one or more lots, and shall allow the Purchaser to award one or multiple lots to more than one Bidder. The methodology of evaluation to determine the lowest-evaluated lot combinations is specified in <b>Section III</b> , Evaluation and Qualification Criteria.
37	Comparison of Bids	37.1	The Purchaser shall compare all substantially responsive bids to determine the lowest-evaluated bid, in accordance with ITB Clause 36.
38	Post Qualification of The Bidder	38.1	The Purchaser shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive bid is qualified to perform the Contract satisfactorily.
		38.2	The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to <b>ITB Clause 19.</b>
		38.3	An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the bid, in which event the Purchaser shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder's capabilities to perform satisfactorily.
39	Purchaser's Right to	39.1	The Purchaser reserves the right to accept or reject any bid,

	Accept any Bid, and to		and to annul the bidding process and reject all bids at any		
	Reject any or all Bids		time prior to contract award, without thereby incurring any liability to Bidders.		
	F. Award of Contract				
40	Award Criteria	40.1	The Purchaser shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Documents, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.		
41	Purchaser's Right to Vary Quantities at Time of Award	41.1	At the time the Contract is awarded, the Purchaser reserves the right to increase or decrease the quantity of Goods and Related Services originally specified in <b>Section VI</b> , Schedule of Requirements, provided this does not exceed the percentages <b>specified in the BDS</b> , and without any change in the unit prices or other terms and conditions of the bid and the Bidding Documents.		
42	Notification of Award	42.1	Prior to the expiration of the period of bid validity, the Purchaser shall notify the successful Bidder, in writing, that its Bid has been accepted.		
	Publication of Award	42.2	Until a formal Contract is prepared and executed, the notification of award shall constitute a binding Contract.		
		42.3	The Purchaser shall publish in the e-procurement website the results identifying the bid and lot numbers and the following information: (i) name of each Bidder who submitted a Bid; (ii) bid prices as read out at bid opening; (iii) name and evaluated prices of each Bid that was evaluated; (iv) name of bidders whose bids were rejected and the reasons for their rejection; and (v) name of the winning Bidder, and the price it offered, as well as the duration and summary scope of the contract awarded. After publication of the award, unsuccessful bidders may request in writing to the Purchaser for a debriefing seeking explanation on the grounds on which their bids were not selected. The purchaser shall promptly respond in writing to any unsuccessful Bidder who, after Publication of contract award, request a debriefing.		
		42.4	Upon the successful Bidder's furnishing of the performance security and signing the Contract Form pursuant to <b>ITB Clause 44</b> , the unsuccessful Bidder can discharge its bid security, pursuant to <b>ITB Clause 21.4</b> .		
43	Signing of Contract	43.1	Promptly after notification, the successful Bidder can ask for the Agreement and the Special Conditions of Contract.		

		43.2	Within twenty-one (21) days of receipt of the Agreement, the successful Bidder shall sign, date, and return it to the Purchaser.
44	Performance Security	44.1	Within twenty one (21) days of the receipt of notification of award from the Purchaser, the successful Bidder, if required, shall furnish the Performance Security in accordance with the GCC, using for that purpose the Performance Security Form included in <b>Section IX</b> Contract forms, or another Form acceptable to the Purchaser. The Purchaser shall promptly notify the name of the winning Bidder to each unsuccessful Bidder and discharge the Bid Securities of the unsuccessful bidders pursuant to ITB Sub-Clause 21.4.
		44.2	Failure of the successful Bidder to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Purchaser may award the Contract to the next lowest evaluated Bidder, whose offer is substantially responsive and is determined by the Purchaser to be qualified to perform the Contract satisfactorily.

**Section II - Bidding Data Sheet** 

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

ITB Clause Reference	A. General
ITB 1.1	The Purchaser is: <b>Director, Chandigarh Transport Undertaking</b> , O/o Director Transport UT, Chandigarh, Plot No. 701, Industrial Area Phase-1, Chandigarh
	The name and identification number of the IFB are:
	IFB No: GEF-ESCBS/CTU/2016 ,Dt. 28 <sup>th</sup> September, 2016
ITB 2.1	The Borrower is Government of India (GOI)
ITB 2.1	The name of the Project is: Efficient and Sustainable City Bus Services [ESCBS]
ITB 4.3	A list of firms debarred from participating in World Bank projects is available at http://www.worldbank.org/debarr
	B. Contents of Bidding Documents
ITB 7.1	For <u>Clarification of bid purposes</u> only, the Purchaser's address is:
	Attention: Director, Address: Chandigarh Transport Undertaking O/o Director Transport UT, Chandigarh Plot No. 701, Industrial Area Phase- 1, Chandigarh, City: Chandigarh Country: India Telephone: 0172-2679002 Electronic mail address: directorctuchd@gmail.com
ITB 8.1	The addendum if any for the bid shall be uploaded in this website http://etenders.chd.nic.in
ITB 8.2	Pre-bid meeting will be held in the office of Director, Chandigarh Transport Undertaking, Plot No. 701, Industrial Area, Phase-I, Chandigarh on 13 <sup>th</sup> October, 2016 at 11:30 AM.  For all the interested bidders, site visit of the depot will be done after the prebid meeting.  Moreover, the interested bidders can visit depot site on anyday as per their convenience.
	C. Preparation of Bids
ITB 11.1(i)	The Bidder shall submit the following additional documents in its bid:
	Certification of incorporation of the bidder and all manufacturers mentioned in

the bid submission.

- 2. The bidder shall clearly confirm that all facilities exist with him (or manufacturer, as applicable) in his factory for inspection and testing and these can be accessed by the Purchaser or his representatives for inspection.
- 3. Technical schedules of goods as required by technical specifications.
- 4. Descriptive documents, drawings, notes and references of operating and assembly of mechanical parts of the Goods being supplied
- 5. A detailed description of the essential technical and performance characteristics of the Goods being supplied
- 6. A clause-by-clause commentary (Compliance Matrix) on the Purchaser's technical specifications demonstrating substantial responsiveness of the Goods and Services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.
- 7. For purposes of the commentary to be furnished pursuant to Paragraph 6 above, the Bidder shall note that standards for workmanship, material and goods, and references to brand names or catalogue numbers designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications
- 8. The documentary evidence of the goods and services eligibility shall consist of a statement in the Price Schedule on the country of origin of the goods and services offered which shall be confirmed by a certificate of origin at the time of shipment
- 9. Non-manufacturer bidders shall submit the manufacturer's authorization Form as per Performa in **Section IV**.
- 10. The following details shall also be provided by the Bidders:
  - a. Name, address, PAN and ward/circle where they are being assessed of the Directors of the Bidding Company.
  - b. Company's PAN and Income Tax clearance certificate and ward/circle where it is being assessed,
  - c. Registration details of the company under VAT, local and Central Sales Tax, and other laws as may be applicable and also Sales tax/VAT clearance certificate
  - d. The bidders from outside India shall provide the corresponding details of Income Tax registration, Social Security Number, details regarding Registration under Value Added Tax or sale of goods (as may be applicable) etc.
- 11. The bidder shall disclose instance of previous past performance that may have resulted into adverse actions taken against the bidder during the last five years.
- 12. The Bidder shall provide the complete details of the brand/manufacturer names.

#### ITB 13.1

Alternative Bids shall not be considered.

	The Incoterm	s edition is Incoterm 2015.						
ITB 14.6 (a) (iii)	"Final destination (Project Site)": Vide Annexure –I in Schedule of Requirement in <b>Section VI</b> .							
ITB 14.7	The prices qu	oted by the Bidder shall <i>not be adjust</i>	able.					
ITB 18.3	Period of time the Goods are expected to be functioning (for the purpose of spare parts): 10 years or as mentioned in Technical Specifications							
ITB 19.1	Manufacturer's authorization is: required as per proforma in Section IV.							
ITB 20.1	The bid validity period shall be 90 days after the bid submission deadline.							
ITB 20.3	The factor will be 5.5% per annum							
ITB 21.1	Bid Security is	s required.						
ITB 21.2	The amount of the Bid Security shall be:							
	Equipment No.	Description of Goods	Quantity in Numbers	EMD Amount				
	1	Generator Set of capacity 200 KVA	1	10,000/-				
	2	Air compressor 60 H.P.	2	20,000/-				
	2	Air compressor 60 H.P.  Nitrogen Generator Machine	2	20,000/-				
		•						
	3	Nitrogen Generator Machine Skid Mounted Effluent Treatment	1	10,000/-				
	3 4	Nitrogen Generator Machine Skid Mounted Effluent Treatment Plant	1	10,000/-				
	3 4 5	Nitrogen Generator Machine Skid Mounted Effluent Treatment Plant Automatic Bus Wash System	1 1 2	10,000/- 30,000/- 80,000/-				
	3 4 5 6	Nitrogen Generator Machine Skid Mounted Effluent Treatment Plant Automatic Bus Wash System Fuel Injection pump Test Bench	1 1 2 1	10,000/- 30,000/- 80,000/- 15,000/-				
	3 4 5 6 7	Nitrogen Generator Machine Skid Mounted Effluent Treatment Plant Automatic Bus Wash System Fuel Injection pump Test Bench Lathe machine	1 1 2 1 1	10,000/- 30,000/- 80,000/- 15,000/- 10,000/-				
	3 4 5 6 7 8	Nitrogen Generator Machine Skid Mounted Effluent Treatment Plant Automatic Bus Wash System Fuel Injection pump Test Bench Lathe machine Recovery/Relief van	1 1 2 1 1	10,000/- 30,000/- 80,000/- 15,000/- 10,000/- 45,000/-				

	view the details of works for which bids are invited. The prospective bidder can submit
	bids online; however, the bidder is required to have enrolment/registration in the
	website and should have valid Digital Signature Certificate (DSC), for signing and
	encryption issued by the same Certifying Authority, in the form of smart card/e-token.  The DSC can be obtained from any authorized certifying agencies. The bidder should
	register in the web site <a href="http://etenders.chd.nic.in">http://etenders.chd.nic.in</a> using the relevant option available.
	Then the Digital Signature registration has to be done with the e-token, after logging
	into the site. After this, the bidder can login the site through the secured login by
	entering the password of the e-token & the user id/ password chosen during registration.
	After getting the bid schedules, the Bidder should go through them carefully and then
	submit the documents as asked, otherwise, the bid will be rejected.
	The completed bid comprising of documents, should be uploaded on the website
	given above through e-tendering along with scanned copies of requisite certificates and other documents as are mentioned in different sections in the bidding.
	and other documents as are mentioned in different sections in the bidding.
ITB 23.1	All the documents are required to be signed digitally by the bidder. After electronic on
	line bid submission, the system generates a unique bid identification number which is time stamped. This shall be treated as acknowledgement of bid submission.
ITB 24.1	Deadline for uploading the bid is: 2:00 PM on 4 <sup>th</sup> November, 2016 on the e-procurement site
	D. Submission and Opening of Bids
ITB 27.1	The bid opening shall take place at: <b>3:00 PM on 4<sup>th</sup> November, 2016</b> at the following
110 27.1	Address: <b>Director</b> ,
	Chandigarh Transport Undertaking,
	O/o Director Transport UT, Chandigarh, Plot No. 701, Industrial Area Phase-
	1, Chandigarh, India
	E. Evaluation and Comparison of Bids
ITB 36.3(a)	Evaluation will be done item wise (supply, Installation, Testing and commissioning of
	each equipment) mentioned in Schedule of Requirements (Section VI).
ITB 36.3(c)	The evaluation will take into account the cost of comprehensive AMC for a period as
	mentioned in schedule of requirements.
ITB 36.6	Bidders are allowed to quote for one or more equipment and bids for each of the
	equipment shall be evaluated separately. The price for each equipment type should be
	separate and shall not be combined with price of any other equipment for which the

	bidder is bidding.
	F. Award of Contract
	The maximum percentage by which quantities may be increased is: 15%
ITB 41.1	The maximum percentage by which quantities may be decreased is: 15%

**Section III. Evaluation and Qualification Criteria** 

### **Contents**

1. Evaluation Criteria (ITB 36.3 {d})	35

- 2. Multiple Contracts (ITB 36.6)-----35
- 3. Qualification Requirements (ITB 38.2)-----35

### 1. Evaluation Criteria (ITB 36.3 (d))

The purchaser shall evaluate the bids that are determined to be substantially responsive in accordance with **ITB Clause 30.** 

#### **Evaluation of Technical Bids**

The technical bid evaluation criteria is given as below

### A) Manufacturer Bidders

#### (a) Financial Capability

The Bidder shall furnish documentary evidence that it meets the following financial requirement(s):

The bidders, who are also the manufacturers, should have annual sales turnover of a minimum of INR 70 Lakhs.

#### (b) Experience and Technical Capacity

The Bidder shall furnish documentary evidence to demonstrate that it meets the following experience requirement(s):

- i. The bidder shall have an ISO Certification for its manufacturing facility.
- ii. The bidder must have manufactured and supplied satisfactorily similar equipment of each type specified in the Schedule of Requirements to the extent as given in the table below in any one of the last 3 years (Prior to the financial year of bid opening).

S.No	Equipment	Extent of sales required
1.	Generator Set of capacity 200 KVA	25
2.	Air compressor 60 H.P	25
3.	Nitrogen Generator Machine	25
4.	Skid Mounted Effluent Treatment Plant	25
5.	Automatic Bus Wash System	25
6.	Lathe machine	25
7.	Recovery/Relief van	50
8.	Recovery van	50
9.	Fuel Injection pump Test Bench	25
10.	Tyre Wheel Retreading Plant	25
11.	Air compressor 15 H.P	25

- iii. The bidder should furnish the information on past supplies and satisfactory performance in the Performa given under **Section-VI**.
- iv. Bidders shall invariably furnish documentary evidence (End User's certificate) in support of the satisfactory operation of the goods as specified above.
- v. The bidder shall furnish data to support that he has the financial and production capacity to perform the contract and complete the supplies within the stipulated delivery period.
- vi. Further, bidder should be in continuous business of manufacturing / supplying and after sale services of products similar to that specified in the 'Schedule of requirement' during the **last 5 years** prior to bid opening year.
- vii. The documentary evidence of the Bidder's eligibility to bid shall establish to the Purchaser's satisfaction that the Bidder, at the time of submission of its bid, is from an eligible country as defined under **ITB Clause 4.**
- viii. The legal status, place of registration and principal place of business of the company or firm or partnership, etc.
- ix. Details of experience and past performance of the bidder on equipment offered and on those of similar nature within the **past 5 years** (Prior to the financial year of bid opening) and details of current contracts in hand and other commitments (suggested Proforma given in **Section VI**).
- x. The Bidder should furnish a brief write-up, backed with adequate data, explaining his available capacity and experience (both technical and commercial) for the manufacture and supply of the required equipment within the specified time of completion after the meeting all their current commitments.
- xi. The bidder should clearly confirm that all the facilities exist in his factory for inspection and testing and these will be made available to the purchaser or his representative for inspection.
- xii. Reports on financial standing of the bidder such as profit and loss statements, balance sheets and auditor's report for the **past 3 years**, bankers certificate, etc.

### **B) Non- Manufacturer Bidders**

In the case of a Bidder offering to supply Goods under the Contract that the Bidder does not manufacture or otherwise produce, the Bidder should be duly authorized by the manufacturer of the Goods who meets the criteria under (A) above (all supporting documents/information as asked above for manufacturer shall be submitted with the bid) and

- a) The manufacturer furnishes a legally enforceable authorization in the prescribed Form [Section IV] assuring full guarantee and CMC obligations as per GCC and SCC for the goods offered; and
- b) The bidder, as authorized by the manufacturers, has supplied and provided after sales service of similar equipment to the extent as given in the table below in any one of the last 3 years (Prior to the financial year of bid opening).

S.No	Equipment	Extent of sales required
1.	Generator Set of capacity 200 KVA	10
2.	Air compressor	10
3.	Nitrogen Generator Machine	10
4.	Skid Mounted Effluent Treatment Plant	10
5.	Automatic Bus Wash System	10
6.	Lathe machine	10
7.	Recovery/Relief van	20
8.	Recovery van	20
9.	Fuel Injection pump Test Bench	10
10.	Tyre Wheel Retreading Plant	10
11.	Air compressor 15 H.P	10

a) The bidder should have annual sales turnover of minimum of INR 70 Lakhs during any of the last three Financial Years.

Notwithstanding anything stated above, the purchaser reserves the right to assess the bidder's capabilities and capacity to execute the contract satisfactorily before deciding on award even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or record of poor performance such as, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.

#### Note:

- 1. The above qualification requirements are to be met by the bidder (in case of manufacturer bidders) and the bidder and the manufacturer respectively (in case of non-manufacturer bidders) and qualification of group/sister/parent companies will not be considered for meeting the above requirement.
- **2.** For the purpose of furnishing documentary evidence to meet the qualification criteria, the bidder should furnish the following:
  - (i) The supply made to public sector/Government units in India, the bidder should submit an affidavit confirming that the performance statement given is correct.
  - (ii) In case of supplies to private sector units, the bidder should submit an affidavit confirming that the performance statement is correct along with copy of purchase order, copy of invoices, proof of payment received from Purchasers, documentary evidence (end user certificate) in support of satisfactory completion of orders.

#### **Evaluation of Financial Bids**

- a) The bidder who satisfies the technical requirement as stated above in the technical bid evaluation will be considered for financial bid evaluation.
- b) In the financial bid evaluation, the bidder who quotes least amount for particular equipment will be selected as the successful bidder.

### 2. Multiple Contracts (ITB 36.6)

Bidder can quote for more than one item. Bidder can also do so by quoting in more than one bid item wise.

**Section IV – Bidding Forms** 

# **Table of Forms**

**Bidder Information Form** 

**Technical Bid Submission Form** 

**Financial Bid Submission Form** 

Price Schedule

Manufacturer's Authorization

### **BIDDER INFORMATION FORM**

[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: [insert date (as day, month and year) of Bid Submission]

IFB No.: [insert number of bidding process]

Page	of	pages

- 1. Bidder's Legal Name [insert Bidder's legal name]
- 2. Bidder's actual or intended Country of Registration: [insert actual or intended Country of Registration]
- 3. Bidder's Year of Registration: [insert Bidder's year of registration]
- 4. Bidder's Legal Address in Country of Registration: [insert Bidder's legal address in country of registration]
- 5. Bidder's Authorized Representative Information

Name: [insert Authorized Representative's name]

Address: [insert Authorized Representative's Address]

Telephone/Fax numbers: [insert Authorized Representative's telephone/fax numbers]

Email Address: [insert Authorized Representative's email address]

6. Attached are copies of original documents of: [check the box(es) of the attached original documents]

Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITB Sub-Clauses 4.1 and 4.2.

In case of government owned entity from the Purchaser's country, documents establishing legal and financial autonomy and compliance with commercial law and not dependent agency of borrower or sub-borrower or purchaser, in accordance with **ITB Sub-Clause 4.5**.

Note: To be completed and submitted /uploaded as a part of the bid.

### **TECHNICAL BID SUBMISSION FORM**

[The Bidder shall fill in this Form in accordance with the instructions indicated No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: [insert date (as day, month and year) of Bid Submission]

NCB No.: [insert number of bidding process]

Invitation for Bid No.: [insert No of IFB]

Alternative No.: [insert identification No if this is a Bid for an alternative]

To: [insert complete name of Purchaser]

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda No.: [insert the number and issuing date of each Addenda];
- (b) We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods and Related Services [insert a brief description of the Goods and Related Services];
- (c) Our bid shall be valid for the period of time specified in ITB Sub-Clause 20.1, from the date fixed for the bid submission deadline in accordance with ITB Sub-Clause 24.1, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (d) If our bid is accepted, we commit to submit a performance security in accordance with ITB Clause 44 and GCC Clause 18 for the due performance of the Contract;
- (e) We, including any subcontractors or suppliers for any part of the contract, have nationality from eligible countries
- (f) We have no conflict of interest in accordance with ITB Sub-Clause 4.3;
- (g) Our firm, its affiliates or subsidiaries—including any subcontractors or suppliers for any part of the contract—has not been declared ineligible by the Bank, under the Purchaser's country laws or official regulations, in accordance with ITB Sub-Clause 4.6.

Signed: [insert signature of person whose name and capacity are shown]
In the capacity of [insert legal capacity of person signing the Technical Bid Submission Form
Name: [insert complete name of person signing the Technical Bid Submission Form]
Duly authorized to sign the bid for and on behalf of: [insert complete name of Bidder]
Dated on day of,[insert date of signing]

Note: To be completed and submitted /uploaded as a part of Technical Bid

### **U**NDERTAKING

Date: [insert date (as day, month and year) of Bid Submission]

	NCB No.: [insert number of bidding process]
	Invitation for Bid No.: [insert No of IFB]
	Alternative No.: [insert identification No if this is a Bid for an alternative]
To:	[insert complete name of Purchaser]
We,	the undersigned, declare that:
(a)	The following commissions, gratuities, or fees have been paid or are to be paid with respect to the bidding process or execution of the Contract: [insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]
	Name of Recipient Address Reason Amount
-	
-	
-	
_	
	(If none has been paid or is to be paid, indicate "none.")
(d)	We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
(e)	We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
(f)	We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

(g) We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely, "Prevention of Corruption Act 1988."

<i>"</i>
igned: [insert signature of person whose name and capacity are shown]
n the capacity of [insert legal capacity of person signing the Form]
Name: [insert complete name of person signing the Form]
Ouly authorized to sign the bid for and on behalf of: [insert complete name of Bidder]
Dated on day of,[insert date of signing]
Note: To be completed and submitted /uploaded as a part ofTechnial Bid

### **FINANCIAL BID SUBMISSION FORM**

(To be submitted in Commercial Bid)

[The Bidder shall fill in these Price Schedule Forms in accordance with the instructions indicated. The list of line items in column 1 of the **Price Schedules** shall coincide with the List of Goods and Related Services specified by the Purchaser in the Schedule of Requirements.]

Date:	
IFB No:	
Alternative No:	
Page No: of	

1	2	4	5	6	7	8	9	10
Sr. No.	Name of the equipment	Basic Price INR	Excise Duty INR	Other Levies	Sales Tax INR	Insurance Charges INR	Freight to destination INR	Total Price at Chandigarh INR
1								
2								
3								

			Price and Com	oletion Schedule	e - Related Services		
Description of t	he equipment:				IFB No:		
	nysical unit: in:			Alternative No: of			
Total Price at Chandigarh INR	Installation and commissioning of the supplied goods INR	Furnishing of tools	Furnishing of detailed operations and maintenance manual for the supplied Goods INR	personnel, of in assembly,	of the Purchaser's ne for each unit on-site, start-up, and operation ied Goods for a period s. INR		Total Bid Price INR per Unit
	<u> </u>	<u> </u>	<u> </u>		Total Bid Price		

Name of Bidder [insert complete name of Bidder] Signature of Bidder [signature of person signing the Bid] Date [insert date]

We, the undersigned, declare that:

- (b) The total price of our Bid, excluding any discounts offered in item (b) below, is: [insert the total bid price in words and figures, indicating the various amounts and the respective currencies];
- (c) The discounts offered and the methodology for their application are:

**Discounts.** If our bid is accepted, the following discounts shall apply. [Specify in detail each discount offered and the specific item of the Schedule of Requirements to which it applies.]

**Methodology of Application of the Discounts.** The discounts shall be applied using the following method: [Specify in detail the method that shall be used to apply the discounts];

c) The following commissions, gratuities, or fees have been paid or are to be paid with respect to the bidding process or execution of the Contract: [insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]

Name of Recipient	Address	Reason	Amount
(If none has been paid or is to	be paid, indicate "none	.")	

- (d) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
- (e) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

- (f) We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.
- (g) We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely, "Prevention of Corruption Act 1988."

Signed: [insert signature of person whose name and capacity are shown]

In the capacity of [insert legal capacity of person signing the Financial Bid Submission Form]

Name: [insert complete name of person signing the Financial Bid Submission Form]

Duly authorized to sign the bid for and on behalf of: [insert complete name of Bidder]

Dated on \_\_\_\_\_\_ day of \_\_\_\_\_\_, \_\_\_\_ [insert date of signing]

Note: To be completed and submitted /uploaded as a part of Commercial Bid

Note: To be completed and submitted /uploaded as a part of the bid.

## **BID SECURITY FORM**

From:	(Bidder)			
To:				
	Director,			
	CHANDIGARH TRANSPORT UNDERTAKING			
	O/o Director Transport UT, Chandigarh,			
	Plot No. 701, Industrial Area Phase-			
	1, Chandigarh, India			
Sir,				
1.	We have deposited Bid security of Rs(Rupees(Rupees			
	We have deposited Bid Security for an amount of Rs in the form of a demand draft from a Nationalized/Scheduled Bank in India the details of which are as follows:			
	(i) DD Number and date:			
	(ii) Name & Branch of issuing Bank			
_	ree that the Bid Security deposited by us as detailed above, may be forfeited by the Purchaser rdance to ITB Clause 21.9			
Signatu	ure and Name of Bidder			
Date:				
Note: 7	o be completed and submitted / uploaded as a part of the Bid.			

# **Bid Security (Bank Guarantee)**

[The Bank shall fill in this Bank Guarantee Form in accordance with the instructions indicated.]

[Bani	k's Name, and Ad	dress of Issuing Branch or Office]
	Beneficiary:	Director, CHANDIGARH TRANSPORT UNDERTAKING
		O/o Director Transport UT, Chandigarh, Plot No. 701, Industrial Area Phase-
		1, Chandigarh, India
Date		
	GUARANTEE No.:	<del></del>
you	its bid dated (he	ed that [name of the Bidder] (hereinafter called "the Bidder") has submitted to ereinafter called "the Bid") for the execution of [name of contract] under [IFB number] ("The IFB").
	nermore, we und antee.	erstand that, according to your conditions, bids must be supported by a bid
At th sums of yo	e request of the E s not exceeding in our first demand	Bidder, we [name of Bank] hereby irrevocably undertake to pay you any sum or total an amount of [amount in figures] ([amount in words]) upon receipt by us in writing accompanied by a written statement stating that the Bidder is in n(s) under the bid conditions, because the Bidder:
(a)	Has withdrawn i Bid; or	its Bid during the period of bid validity specified by the Bidder in the Form of
(b)	validity, (i) fails	tified of the acceptance of its Bid by the Purchaser during the period of bid or refuses to execute the Contract Form; or (ii) fails or refuses to furnish the curity, if required, in accordance with the Instructions to Bidders.
conti Bidde your	ract signed by the er; or (b) if the Bio	pire: (a) if the Bidder is the successful bidder, upon our receipt of copies of the Bidder and the performance security issued to you upon the instruction of the dder is not the successful bidder, upon the earlier of (i) our receipt of a copy of the Bidder of the name of the successful bidder; or (ii) twenty-eight days after bidder's Bid.
on or	r before that date	
This {	guarantee is subje	ect to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.
[Sign	ature]	

Note: To be completed and submitted / uploaded as a part of the Bid.

### **MANUFACTURER'S AUTHORIZATION**

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are legally binding on the Manufacturer shall include it in its bid.

Date: [insert date (as day, month and year) of Bid Submission] IFB No.: [insert number of bidding process]

To: [insert complete name of Purchaser]

#### **WHEREAS**

We [insert complete name of Manufacturer], who are official manufacturers of [insert type of goods manufactured], having factories at [insert full address of Manufacturer's factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide the following Goods, manufactured by us [insert name and or brief description of the Goods], and to subsequently negotiate and sign the Contract against the above IFB.

We hereby extend our Comprehensive Maintenance in accordance with **Clause 28** of the General Conditions of Contract, with respect to the Goods offered by the above firm against this IFB.

signed: [insert signature(s) of authorized representative(s) of the Manufacturer]			
Name: [insert complete name(s) of authorized representative(s) of the Manufacturer] Fitle: [insert title]			
Duly authorized to sign this Authorization on behalf of: [insert complete name of Bidder]			
Dated on day of,, [insert date of signing]			
Note: Specify items for which Manufacturer's authorization is required.			
Note: To be completed and submitted / uploaded as a part of the bid.			

# **Section V. – Eligible Countries**

Under ITB 4.1- None

#### **PUBLIC INFORMATION CENTER**

#### Eligibility for the Provision of Goods, Works and Services in Bank-Financed Procurement

1. In accordance with Para 1.8 of the Guidelines: Procurement under IBRD Loans and IDA Credits, dated May 2004, the Bank permits firms and individuals from all countries to offer goods, works and services for Bank-financed projects. As an exception, firms of a Country or goods manufactured in a Country may be excluded if:

Para 1.8 (a) (i): as a matter of law or official regulation, the Borrower's Country prohibits commercial relations with that Country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of the Goods or Works required, or

Para 1.8 (a) (ii): by an Act of Compliance with a Decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from that Country or any payments to persons or entities in that Country.

- 2. For the information of borrowers and bidders, at the present time firms, goods and services from the following countries are excluded from this bidding:<sup>2</sup>
  - (a) With reference to paragraph 1.8 (a) (i) of the Guidelines: NONE
  - (b) With reference to paragraph 1.8 (a) (ii) of the Guidelines: NONE

Any questions regarding this list should be addressed to the Director, Procurement Policy and Services Group, Operational Core Services Network, The World Bank

# **PART 2 - SUPPLY REQUIREMENTS**

Section VI – Schedule of Requirements

# **Content**

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### 1. List of Goods and Delivery Schedule

Equipment		Quantity	Final (Site)	Delivery (as p	er Incoterms) Date
No.	Description of Goods	in Numbers	Destination as specified in BDS	Delivery period	Bid Security in Indian Rupees
1	Generator Set of capacity 200 KVA	1			
2	Air compressor 60 H.P.	2			
3	Nitrogen Generator Machine	1			
4	Skid Mounted Effluent Treatment Plant	1	Depot 2 Adjoining Director Transport Office, CTU,Plot No. 701, Industrial Phase-I		
5	Automatic Bus Wash System	2			
6	Fuel Injection pump Test Bench	1		Delivery of the Goods will be strictly as per Delivery Schedule	In <b>INR</b> as per Section X and in the form
7	Lathe machine	1		specified in the RFP.	as prescribed under Clause 21.3.
8	Recovery/Relief van	1	Chandigarh of		
9	Recovery van	1	сти		
10	Tyre Wheel Retreading Plant	1			
11	Air Compressor 15 H.P.	2			

Note: This form is for the information of the bidder and is not to be Submitted / uploaded as a part of the bid.

2. List Of Related Services [ITB Clause 14.6(B)] And Completion Schedule

### [To be furnished separately for each equipment]

Service	Description of Service	Description of Item	Physical Unit	Place where Services shall be performed	Final Completion Date(s) of Services
	Installation and commissioning of the supplied goods.	1.		Depot 2 Adjoining	Withindays
	Furnishing of tools required for assembly and/or maintenance of the supplied Goods	2.		Director Transport Office, CTU,Plot No. 701, Industrial Phase-I	after signing of the contract.
	Furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods	3.		Chandigarh of CTU	
	Comprehensive maintenance and/or repair of the supplied Goods, for a period of as mentioned in schedule of requirement.				
	Training of the Purchaser's personnel, one for each unit onsite, in assembly, start-up, operation, maintenance and/or repair of the supplied Goods for period of three days.				

Note: This form is for the information of the bidder and is not to be Submitted / uploaded as a part of the bid.

### 3. Technical Specifications

The Chandigarh Transport Undertaking. (here-in-after referred to as the "Company") is implementing Intelligent Transportation Systems (ITS), World Bank-GEF assisted Efficient and Sustainable City Bus Services (ESCBS) project. As part of the project, the Company is also procuring modern depot equipment for enabling the buses to be maintained well for increased road worthiness and performance. The following machinery equipment shall be procured for this project.

The Global Environmental Facility (GEF) along with the World Bank and Ministry of Urban Development (MoUD) has initiated the GEF-V project which is termed as "Efficient and Sustainable City Bus Services (ESCBS)" to provide Sustainable City Bus Services in Medium sized cities. The main objective under the GEF-V Project is to improve the efficiency and attractiveness of city bus transport and reduce greenhouse gas emissions in the demonstration cities through improved maintenance facilities and practices, efficiency in operations and greater user responsiveness.

Under this programme, Chandigarh Transport Undertaking plans to procure modern depot equipment for enabling the buses to be maintained well for increased road worthiness and performance. The following Plant and machinery equipment shall be procured for this project.

	Equipment	Quantities at Depots		
S.No		Depot 2	Total Quantity	
1.	Generator Set of capacity 200 KVA	1	1	
2.	Air compressor 60 H.P.	2	2	
3.	Nitrogen Generator Machine	1	1	
4.	Skid Mounted Effluent Treatment Plant	1	1	
5.	Automatic Bus Wash System	2	2	
6.	Fuel Injection pump Test Bench	1	1	
7.	Lathe machine	1	1	
8.	Recovery/Relief van	1	1	
9.	Recovery van	1	1	
10.	Tyre Wheel Retreading Plant	1	1	
11.	Air Compressor 15 H.P.	2	2	

The detailed technical requirements of each of the above equipment are as mentioned below:

#### 1: GENERATOR SET 200 KVA

**Description:** A diesel generator (Genset) is a combination of a diesel engine with an electric generator (often an alternator) to generate electrical energy. This is a specific case of engine-generator. A diesel compression-ignition engine often is designed to run on fuel oil, to generate electricity for running critical depot maintenance equipment, tyre retreading plant attached to the depot, Electrical Curing chamber and other equipment etc. in case of power failure. The Generating Set so will be Sound proof as CPCB norms and should have AMF panel.

Spec No	Requirement		
1.	Bidder shall ensure that the power requirements of the Genset equipment shall be 415 Volts, 3-phase, 1500 RPM, 0.8pf and DG SET shall meet the standard requirements of IS 10002/BS 5514/ISO8528.		
2.	Voltage Regulation shall be automatic, from no load to full load at+/- 0.5 % between 0.8 and unity lagging and shall have the power factor and up to speed variation of 4.5%.		
3.	Equipment shall work on the frequency of 50 Hz, frequency undulation within 0.25%from 0 to 100% load.		
4.	Dust proof control panel shall be fitted with circuit breaker for short circuit and overload protection, control fuses, current transformers, frequency meter, earth terminal.		
5.	Alternator should have windings of 100% Copper, Class H insulation, and voltage regulation of +/- 0.5%, Over-excitation protection as per IP 23 and standard under-speed protection.		
6.	Fuel Tank Capacity shall be sufficient enough for holding fuel for 6 hours of continuous operation.		
7.	Acoustic Enclosure shall be as per the CPCB norms (ISO 3744/ISO 8528 Part 10).		
8.	Bidder shall adhere to the various fire prevention measures while supplying the equipment. All the outer covers, canopies, lockable doors, lockable fuel filling arrangement etc. should be fire retardant / non-igniting conforming to BS 4735 / BIS 7888.		
9.	In addition, the Genset supplied by the bidder shall comply with/have the following:		
10.	i. Heavy duty, 4-cycle, direct injection, turbocharged, air to air intercooled diesel engine		
	ii. Genset should have a Brushless alternator		
	iii. Genset should support Automatic voltage regulator (AVR)		
	iv. Full load acceptance		
	v. Sound attenuated, weather resistant, steel housing		
	vi. Internal fuel tank		
	vii. Seven stage powder coat paint		
	viii. Complete generator analog & Engine analog instrumentation		
	ix. Automatic safety shutdown system on low level of Diesel		

	x. Auto start/stop control
	xi. Complete power panel
11.	Comprehensive Maintenance Contract for 8 years from the date of final acceptance complete in all respects including spare parts, Electrical parts etc. or any other reason whatsoever.
12.	Minimum Life of Equipment shall be 10 years.

		2. AIR COMPRESSOR 60 H.P.	
SI No	Clause	Requirement	
1	General Description & Application	Screw type silent air compressor system consisting of compressor, integrated/stand-alone refrigeration type air drier and pre filter is required to supply dry and filtered air.	
2	Air Inlet System	<ul> <li>Shall have pre filter to ensure clean air supplied to the inlet system.</li> <li>Shall have air duct to guide the air from the atmosphere to the air cleaner</li> <li>Air Cleaner Housing shall have the following:         <ul> <li>Twin paper element, each of 4 micron with an efficiency of 99%.</li> <li>Plastic baffle on the air cleaner to separate heavy particles and avoid clogging of paper element.</li> <li>Clog indicator which shall effects when pressure drop exceeds 420-600mm of water column.</li> <li>Rubber coupling connecting air filter to the intake valve.</li> </ul> </li> <li>Shall have NC type Intake Valve with integrated blow down valve and solenoid valve.</li> </ul>	
3	Drive System	<ul> <li>Shall have 3 phase, 50 Hz, 400 V, eff1 squirrel cage induction motor with TEFC Class F insulation.</li> <li>It shall also have the following.         <ul> <li>Belt type</li> <li>Flexible coupling for air end and motor.</li> <li>Adaptor ring connecting motor and air end flange.</li> <li>Coupling guard.</li> <li>Control panel with</li> <li>O Star-Delta Starting with contactors for the main motor.</li> <li>DOL starter with contactor for cooling motors.</li> <li>O Overload relay for main motor.</li> <li>Fan motor with inbuilt overload relay.</li> </ul> </li> </ul>	
4	Integrated/stand alone Refrigeration type Air Dryer	<ul> <li>Compressor unit shall have an integrated/ stand-alone air cooled refrigeration type Air dryer with moisture trap.</li> <li>Air Fluid separation system &amp; Dryer</li> <li>Capacity of air dryer shall be 2.27 m³/m</li> <li>Max. Working pressure shall be 15 kg/cm²</li> </ul>	

		-
5	Cooling System	The system shall have cooling system with fans and larger cooling surface area to enhance the cooling of hot air. The cooling system shall have the following.  • Cooling air duct that separates hot and cold zone inside the compressor.  • Aluminium oil cooler.  • Aluminium after cooler  • Cooling fan cum integrated motor.
6	Lubrication System	<ul> <li>Shall have high capacity spin-on filter element with 10 microns rating.</li> <li>Shall have Return oil line from separator tank to air end</li> <li>Shall have rigid pipe connections for long life and leak free operation.</li> </ul>
7	Discharge System	<ul> <li>Shall have Receiver Tank (conforming to ASME norms), incorporating OSBIC (Oil Separation By Impact and Centrifugal Action) principle mounted on base frame with         <ul> <li>Oil filling plug</li> <li>Oil drain with ball valve</li> <li>Pressure relief valve</li> <li>Oil sight glass</li> </ul> </li> <li>It shall have single air-oil separator element.</li> <li>Shall have metallic hose from air end to receiver tank.</li> <li>Shall have minimum pressure valve.</li> <li>Shall have moisture separator.</li> <li>Shall have service ball valve outside the canopy/casing.</li> </ul>
8	Controls and Indications	The compressor system shall have following controls and indications  NC type intake valve  Pressure Transmitter.  Temperature transmitter.  Neuron II micro controller- 24V AC with  a 2 analog & 9 digital inputs  Emergency stop  High sump pressure trip with indication  Single phase preventer with reverse rotation trip  Fan motor trip with indication  Main motor trip with indication  2 line 16 character alpha numeric display  1 analog output 0-10DC – pressure selectable  6 relay outputs for  O Main/fan

		o Delta
		o Delta
		O Load/unload valve
		o General warning
		o General trip
		Service menu indicating the change of following
		o Air filter
		o Oil filter
		o Air-oil separator
		o Lubricating oil
		o Motor re-greasing
		History of last 99 trips
		Tome and pressure weekly schedule
		The compressor shall be designed to ensure highest level of safety for
9	Safety and protection	the following.
		Pressure regulating valve
		High pressure
		High temperature
		Pressure relief valve
		Phase order and single phase
		The compressor shall be supplied with the following technical
		parameters.
		➤ Capacity (free air delivery)@ max pressure: 250 CFM
		➤ Max. Working pressure: 13 kg/cm²
		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> </ul>
		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> </ul>
	Technical	<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> </ul>
10	Technical Specifications	<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 60 HP, Sq. Cage induction motor, TEFC type suitable for</li> </ul>
10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 60 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class</li> </ul>
10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 60 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> </ul>
10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 60 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> </ul>
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10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 60 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> <li>Capacity of vertical air receiver tank: 500 litres</li> <li>Working pressure of air receiver tank: 12.5 kg/cm²</li> </ul>
10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 60 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> <li>Capacity of vertical air receiver tank: 500 litres</li> <li>Working pressure of air receiver tank: 12.5 kg/cm²</li> <li>Max. Noise level: less than 70 Decibels.</li> </ul>
10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 60 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> <li>Capacity of vertical air receiver tank: 500 litres</li> <li>Working pressure of air receiver tank: 12.5 kg/cm²</li> <li>Max. Noise level: less than 70 Decibels.</li> <li>The screw compressor shall be CE certified.</li> </ul>
10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 60 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> <li>Capacity of vertical air receiver tank: 500 litres</li> <li>Working pressure of air receiver tank: 12.5 kg/cm²</li> <li>Max. Noise level: less than 70 Decibels.</li> <li>The screw compressor shall be CE certified.</li> </ul>
	Specifications	<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 60 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> <li>Capacity of vertical air receiver tank: 500 litres</li> <li>Working pressure of air receiver tank: 12.5 kg/cm²</li> <li>Max. Noise level: less than 70 Decibels.</li> <li>The screw compressor shall be CE certified.</li> <li>The scope of supply of the compressor shall include the following</li> <li>Screw air compressor having capacity of 250 cfm, 60 HP motor</li> </ul>
10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 60 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> <li>Capacity of vertical air receiver tank: 500 litres</li> <li>Working pressure of air receiver tank: 12.5 kg/cm²</li> <li>Max. Noise level: less than 70 Decibels.</li> <li>The screw compressor shall be CE certified.</li> <li>The scope of supply of the compressor shall include the following</li> <li>Screw air compressor having capacity of 250 cfm, 60 HP motor</li> <li>Refrigerated type air dryer suitable for above compressor</li> </ul>
	Specifications	<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 60 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> <li>Capacity of vertical air receiver tank: 500 litres</li> <li>Working pressure of air receiver tank: 12.5 kg/cm²</li> <li>Max. Noise level: less than 70 Decibels.</li> <li>The screw compressor shall be CE certified.</li> <li>The scope of supply of the compressor shall include the following</li> <li>Screw air compressor having capacity of 250 cfm, 60 HP motor</li> </ul>

		<ul> <li>valve, pressure gauge</li> <li>Suitable pre filter</li> <li>Suitable fine filter</li> <li>Suitable carbon filter oil content 0.003 microns</li> <li>Lubricating oil</li> <li>Electrical cables conforming to relevant Indian Standards for input power supply to the system.</li> <li>Operator's manual giving complete information about the machine and its operations.</li> </ul>
12	Civil works and space requirement	<ul> <li>The bidder shall have to specify the requirement of civil works if any for the erection of unit.</li> <li>The requirement of space for the installation of one complete system to be informed.</li> </ul>
13	Supply and installation	The bidder is responsible for the supply of complete system and satisfactory installation and commissioning of the unit at the site of the purchaser.
14	Marking	The equipment shall be supplied with the following information legibly marked on the machine.  Name plate shall be provided with the information of manufacturers name, trade mark, model no, year of manufacture.  Information regarding electrical power requirements, output parameters.
15	Expected life	The screw compressor supplied shall provide trouble free services for at least 10 years from the date of installation and commissioning.
15	СМС	Comprehensive AMC for 8 years from the date of final acceptance complete in all respects including spare parts, Electrical parts etc. or any other reason whatsoever.

		3: NITROGEN GENERATOR MACHINE	
SI No	Clause	Requirement	
1	General Description & Application	The unit shall generate nitrogen from compressed air for inflating the automotive tyres with nitrogen gas.	
2	Design and operational requirement	<ul> <li>A. Nitrogen Generator:</li> <li>➤ The nitrogen generator shall adopt Pressure Swing Adsorption technique for the generation of nitrogen from compressed air and it shall meet the needs of all types of tyres from passenger vehicles to the load carriers.</li> <li>➤ The unit shall have adsorber vessels, surge tank, storage tank, flow control valves and a controller.</li> <li>➤ The compressed air shall be pre-treated for removal of moisture, oil, and particles and shall be passed through the adsorber vessel filled with Carbon Molecular Sieve (CMS) for the generation of N₂.</li> <li>➤ The unit shall be rugged with fully non corrosive aluminium extruded towers and valve manifold that provides uncontaminated nitrogen gas.</li> <li>➤ There shall be an inbuilt nitrogen storage tank apart from additional storage facility. Both inbuilt and external air receiver shall confirm to IS 7938-1976 reaffirmed in 2001.</li> <li>➤ An inbuilt air dryer and high efficiency borosilicate filter shall be provided for enhancing the life of CMS</li> <li>➤ High efficient CMS shall be provided for consistent purity and log life.</li> <li>B. Digital Tyre Inflator:</li> <li>➤ There shall be microprocessor based, simple and intuitive control board for greater functionality and highest reliability.</li> <li>➤ Ceramic pressure transmitter shall be provided for high reliability and accuracy.</li> <li>➤ There shall be provision of pressure based automatic vacuuming to ensure no air in the tyre during first time nitrogen fill.</li> <li>➤ An inbuilt tyre counter and hour meter shall be provided for better monitoring.</li> <li>➤ The keypad shall be user friendly with highly reliable tactile keys.</li> <li>➤ Pressure units shall be selectable for "PSI" and "bar".</li> <li>➤ Flat tyre option shall be provided for inflating new tyres and</li> </ul>	

		punctured tyres.
		<ul> <li>Independent pressure gauges for Air and N₂ shall be provided.</li> </ul>
		<ul> <li>Independent LED display with backlight for tyre pressure and</li> </ul>
		set pressure which is visible from minimum 15 meters
		distance.
		Audio and visual indication shall be provided for the indication
		of the end of inflation/deflation cycle.
		There shall be a provision of automatic calibration to the local atmospheric pressure.
		➤ Option of dual filling of N₂/Air shall be provided.
		Option of both Auto/Manual shall be provided.
		There shall be an indication for nitrogen purity.
		There shall be a provision of auto shut off of nitrogen generation system.
		➤ There shall be a provision to inflate/deflate 2 tyres simultaneously with 2 separate hose pipes and
		inflating/deflating tool.
		➤ Hoses shall be of steel/PU braided having 15 meters length
		with inflating tool (nozzle). The hose shall meet with relevant Indian Standards.
		The entire unit shall be designed to ensure highest level of safety for both unit and operator.
		The nitrogen generator with digital inflator shall have following
		specifications.
		➤ Input power supply: AC, 230V, 50Hz, single phase
		Nitrogen purity: 96-99%
		Input Air pressure: 10-16 bar
		Nitrogen output pressure: 10 bar
		Power Consumption: Maximum 100 Watt (± 5%)
		<ul> <li>Nitrogen generation capacity: 280-300 litres/minute</li> </ul>
3	Technical	Inbuilt storage tank capacity: 60-90 litres
	specifications	<ul><li>External storage tank capacity: 300 litres</li></ul>
		➤ Inflator accuracy: ± 1 PSI / 0.07 bar
		Measuring Resolution: 1 PSI / 0.07 bar
		Indications: LED and buzzer both
		Pre filter: 5 Microns
		Air dryer: Integrated
		The Ambient conditions shall be considered as given below.
		<ul> <li>Atmospheric temperature - +10<sup>0</sup> C to +50<sup>0</sup> C</li> </ul>

		Relative humidity - 95%.
		The unit shall be CE certified.
		The scope of supply shall include the following.
	Scope of Supply	<ul> <li>Nitrogen generator with digital inflator with integrated storage tank – 01 no</li> </ul>
4		2 PU/steel braided hoses of 15 meters length with inflating nozzle (tyre valve connector).
		External storage tank of 300 litres capacity – 01 no.
		Input supply cable of 15 meters length. It shall meet with relevant Indian Standards.
		Operator's manual with instructions of maintaining the unit.
5	Supply and installation	The bidder is responsible for the supply, installation and satisfactory commissioning of the complete unit along with all necessary accessories.
6	Training	The successful bidder shall provide training on operation of the unit at the site of the purchaser.
7	Expected life	The entire system shall provide trouble free services for at least 10 years from the date of installation and commissioning.
8	СМС	Comprehensive AMC for 8 years which includes all the spare parts, electrical parts or any other parts thereof complete in all respects.

## **4: SKID MOUNTED EFFLUENT TREATMENT PLANT**

**Description**: The purpose of this treatment plant shall be to treat the used/ contaminated/ polluted water due to the various activities like Bus washing, under chassis cleaning etc. The treated water from effluent treatment plant only should be released outside into the environment.

Spec			
No.	Requirement		
1.	Bidder shall ensure that the Water Treatment plant equipment shall be able to remove the various constituents such as oil, grease, mud, muck etc.		
2.	Minimum Capacity of the treatment plant shall be 2.0 cubic meter/hour		
3.	Raw water Transfer Pump with motor shall have the following requirements:		
	i. Flow: 2 cubic meter/hour@15m Head		
	ii. Motor: 440V, 50 Hz		
4.	Waste water shall pass through the following processes:		
	i. Sludge Separator: to remove the sludge, oil, fuels, hydraulic fuels.		
	ii. Multimedia Filter: to filter out the turbidity in raw water.		
	iii. Activated Carbon Filter: To Remove the odor.		
	iv. Water Softener: To remove the dissolved salts.		
5.	Quality of the water after passing through the process of treatment shall be as per the following specifications:		
	i. Color: Upto 50mg/L platinum		
	ii. Turbidity: Upto 500 NTU		
	iii. pH: 6.5 to 8.5		
	iv. Total Hardness: Upto 500 ppm		
	v. Calcium: Upto 200 ppm		
	vi. Magnesium: Upto 100 ppm		
	vii. Mineral Oil: Upto 0.1 ml/ liter		
6.	Two no.'s of inner area Electro Galvanized and outer area MS powder coated vessel for Pre-filter and Fine-filter shall be provided.		
7.	Two no. of raw water centrifugal pump with starter shall be provided for Filter Feed.		
8.	Water Treatment Plant shall be supported by the Centrifugal Horizontal pump and shall adhere to the following requirements:		
	i. Pump shall work on the three Phase, 440 V, TEFC, Open Duty, and Electrical Motor.		
	ii. Impeller shall be closed type supporting the speed of minimum 1400 RPM.		
	iii. Drive connection shall be Direct Driven.		

	<ul> <li>iv. Coupling Guard shall be removable coupling Guard fabricated from non-sparking material.</li> </ul>	
	v. Bearings shall be Anti-Friction type, grease lubricated.	
	vi. Pump shall have the following accessories: Coupling Guard; Counter Flange with nuts, bolts, gaskets etc.; Motor Cover; Vent Cock; Anchor Bolts; Gauge Cock; Drain Fittings; Seal Piping's and Fittings; Constant level Oiler; Foundation Bolts.	
9.	One no of oil field pressure gauge (0-6 bar) shall be provided.	
10.	One set of Multi-port valves with interconnecting U-PVC pipes shall be provided.	
11.	The plant should be capable functioning to comply with the National Standard for ETP plants set by the pollution control board.	
12.	Minimum life of the equipment shall be 10 years.	
13.	Comprehensive AMC for 8 years from the date of final acceptance complete in all respects including spare parts, Electrical parts etc. or any other reason whatsoever.	

	5: AUTOMATIC BUS WASHING SYSTEM (MOVING BRUSH TYPE)		
SI No	Clause	Requirement	
1	General Description & Application	<ul> <li>➤ The washing machine shall be fully automatic, 2 brush roll over gantry type system where the vehicle is driven in and the equipment moves forward and reverse direction to wash the two sides of the bus.</li> <li>➤ All functions of the machine shall be controlled and monitored automatically by a press of a selective switch at the control panel, as per the requirement.</li> <li>➤ The machine shall be able to clean and wash both sides of the bus simultaneously. Oscillating nozzles shall be provided to clean the roof, front and rear portion of the bus.</li> <li>➤ The machine shall be able to wash all types of buses whose overall dimensions are within the following.         <ul> <li>Overall length: 18 meters</li> <li>Overall width: 2.6 meters</li> <li>Overall height: 3.8 meters</li> </ul> </li> <li>➤ All electric control systems shall be within water tight closets with additional protection by an acrylic transparent sheet which can be opened only with special tools.</li> <li>➤ The entire system shall be operated when installed in open space without the requirement of a shed/any roof.</li> <li>➤ The entire structure should be made up of units which can be assembled at the site. It should also help in easy replacement of any one unit whenever the need arises.</li> </ul>	
2	Operational requirement	<ul> <li>The machine shall have 2 pass washing sequence to wash the vehicle.</li> <li>The sequence of wash system shall be as given below.</li> <li>The vehicle will be driven inside the system between the guide rails and parked at a predetermined position.</li> <li>The operator would operate the system by pressing the start button.</li> <li>The brushes shall move forward wiping the sides of the bus. Water and a detergent shall be injects simultaneously over the sides of the bus. A separate nozzle bank shall be provided for the spray of detergent. There shall be a provision of dosing of detergent through an electronic dosing pump. During the first traverse, detergent shall be electronically and automatically sprayed over the bus surface.</li> </ul>	

		>	During the reverse traversing of the brush system, the spray of detergent shall be automatically stopped and the bus sides shall be washed with only water.
		>	At the end of the reverse travel, the machine shall position itself in its starting position with the water spray system shut off and both brushes stop rotating giving passage way for the bus to exit through the system.
		>	All the above processes shall take place automatically with a single press of the button.
		>	There shall be a dedicated nozzle bank with pump for water and detergent. The operator shall have a provision to keep the detergent spray system ON/OFF, depending upon the requirement.
		>	Separate oscillating nozzle bank shall be provided for cleaning the front, rear and top sides of the bus. The system should spray the water to front and rear sides of the bus for at least 10 seconds before the machine starts to travel forward or reverse.
		<b>\(\lambda\)</b>	The system shall be provided with a separate water hose with high pressure trigger to wash the wheel rims and below the chassis when the brush system is OFF.
		>	The time required for completion of entire automatic washing sequence for one bus shall be a maximum of 3 to 4 minutes for 10-12 meter bus.
		>	The system shall have both auto and manual modes so that the operator can choose any mode. The washing of the bus shall be fully automatic only when the system is in auto mode.
		A. Stru	cture
			The main structure shall be rigid, robust and build with minimum 50mmx50mmx3mm tubular steel material with modular design. The fabrication process shall be such that, the distortion does not take place.
3	Design and		The structure shall be suitably treated and hot dip galvanised for protection against corrosion. The anti-corrosion treatment shall be made in such a way that the structure shall not get
	Construction		corrosion even if it is kept for 2000 hours in salt water.
		>	The structure shall be covered with powder coated, non-tearing, non-rusting galvanised sheets.
		>	The entire structure shall be painted with soft colours using polyurethane paints.
		>	All gaps in entire structure shall be filled with silicone rubber to avoid penetration of water to prevent corrosion.

- To enhance the external aesthetics of the system, PVC moulds shall be used wherever it is possible.
- ➤ Water pipes with sufficient number of SS/brass nozzles shall be fitted on the structure at suitable locations for spraying sufficiently high pressure water on the surface of the bus for washing purpose.
- ➤ A separate pipeline with sufficient number of SS/brass nozzles shall be provided at suitable location to spray the detergent on the bus surface.
- Two special type brushes shall be fitted vertically on either side inside the gantry which shall rotate at a speed of 90-100 RPM by geared motors.
- ➤ The entire gantry shall move to and fro on rails fixed on specially made floor by two geared motors fitted on either side of the gantry. The geared motor shall have 15-18 RPM.
- ➤ Limit switches shall be provided at proper locations to control the forward and reverse movement of gantry according to the length of the bus.
- The system shall be designed such that the structure and gantry shall not be tilted at any condition.

#### **B.** Brushes

- The brushes shall be of "X" profile polyethylene bristles mounted on minimum 300x302 long PVC pads. The brush shall be guaranteed for minimum 50000 wash cycles.
- These brush pads shall be closely riveted using pop rivets on an aluminium pipe of around 76mm dia, thickness of minimum 3mm to form one complete brush.
- The pads shall be fitted in such a way that it can be easily replaced with new one, once it is worn out.
- The brush pads shall have long life and the design shall be such that it is hard enough to wash the bus body and at the same time it shall not cause any damage to the bus body or painting.
- ➤ The general design of the pad length shall be such that the bristles are 450mm long, 36 bristles in each bunch and 385-400 bunches per pad.
- > The bidder shall give guarantee for the bristles and smooth working of the brush for a minimum number of wash cycles as declared by him.
- > The complete assembly of the brush shall be mounted on the structure frame with a bearing block duly protected from water by a deflector made out of rubber impregnated canvas/galvanized sheet.

- ➤ The upper and lower end of the vertical brush roller pipe must be supported by bearing (LH & RH both sides). The power from gear box shall be transferred to the brush through a flexible coupling capable of absorbing any jerks, to enhance the life of the gear Box.
- ➤ Both sides water proof shutter doors with hinges shall be provided at inner side of main machine pillar for the maintenance of gantry gear box, pedestal bearing, driving mechanisms etc.
- > The bidder shall provide following technical details pertaining to the brush assembly.
  - The material specs and dimensions of the pipe
  - Bearing details like type, make, number of bearings used
  - Number of PVC pads in each brush, size of the pad and its method of fitment.
  - Material specs (with grade and properties), dimensions, shape of cross section and breaking strength of the bristles.
  - Any other technical parameters.

#### **C. Control Panel**

- The control panel shall be mounted on the basic structure frame or may be mounted separately on a well-designed fabricated control panel.
- The control panel box shall be so designed that it is fully concealed with additional protection of a acrylic transparent sheet which can be opened only with special tools, so that there are no chances of water entering into panel. There should be sufficient space inside the box for carrying out the maintenance.
- The control panel box shall be painted with anti-corrosive paint.
- The control panel shall be fitted on vibration resistant pads and shall have proper earthing.
- ➤ All electric wires used for electrification shall confirm to relevant Indian Standards and wires shall be concealed by PVC pipe.
- ➤ All connectors and terminals shall be heavy duty and of reputed make.
- ➤ All control switches and various sensors for the movement of gantry, water pump start/stop switches, main supply On/Off etc. shall be provided with the necessary safety features.

- ➤ Programmable Logic Controller (PLC) shall be used for controlling the automatic operations of the machine.
- ➤ A facility shall be provided in the control panel to stop the machine at any desired point along its travel, to permit additional cleaning in localized area.
- ➤ Miniature Circuit Breaker (MCB) shall be provided on both control side and input supply side.
- > Overload relay shall be provided to protect from overload.
- ➤ Auto/Manual mode shall be provided so that the operator can choose any mode.
- ➤ A facility shall be provided to count and record the number of wash cycles performed.
- ➤ A facility shall be provided to control the forward and reverse movement of bus depending on the length of the bus.
- ➤ A facility shall be provided to keep the detergent spray system ONN/OFF. When it is OFF, the washing shall be made only with water.
- > The entire system shall be designed to ensure highest level of safety to the machine and operator.

#### D. Water System

- ➤ Water spray system shall be manufactured from galvanised steel pipes fitted with removable SS/Brass spray jet nozzles at suitable locations to ensure entire vehicle covering.
- ➤ A separate pipeline with nozzle bank shall be provided for detergent spray.
- ➤ A detergent tank of suitable capacity shall be provided for washing at least 50 vehicles.
- ➤ An electronic metering pump shall be provided to inject the detergent into the spray system.
- ➤ For supplying water to the machine, positive inlet head centrifugal pump of minimum 3 HP capacity shall be provided with the system. In case of underground water storage, submersible type centrifugal pump of 3 HP capacity shall be provided.
- > Separate pipeline with oscillating nozzle bank shall be provided for cleaning the front and rear portion of the bus.

#### E. Gantry Drive

- ➤ Gantry shall be provided with heavy duty square flange type track wheels.
- ➤ The drive shall be through double chain sprocket system of minimum ½" size of reputed make.
- > The track wheel shall be supported on at least 25 mm shaft

		with two heavy duty bearing blocks with two sealed ball bearings in each block (cast iron pillow blocks are not acceptable).  The gantry shall be moved by geared motor of 15-18 RPM on either side  F. Track Rails  The track rails shall be of minimum Indian Standard Medium weight Beams 100 (ISMB 100). It shall be strong enough to avoid bending.  The track rails shall be hot dip galvanized.
		➤ The track rails shall be supported on 5 mm thick mounting plate duly welded to the track and should be secured through fasteners/stud at 50 cm interval, in the concrete.
		A. Main water Pump to the machine  Type: self-priming_contrifugal type
		<ul> <li>Type: self-priming, centrifugal type</li> <li>Water flow: 150-200 lpm</li> <li>Pressure: 2-4 bar</li> <li>Motor: TEFC, 3 HP, 2900 RPM, IP55 protection, Class B insulation, input supply of 415V, 50Hz, 3 phase with overload protection.</li> </ul>
4	Technical specifications of major components	<ul> <li>B. Water Pump for oscillating nozzle bank</li> <li>Type: positive displacement, triplex crank type with unloader.</li> <li>Water flow: 21-25 lpm</li> <li>Pressure: 80-100 bar (adjustable)</li> <li>Motor: TEFC, 5 HP, 2900 RPM, IP55 protection, Class F insulation, input supply of 415V, 50Hz, 3 phase with overload protection.</li> </ul>
		C. Detergent Pump  ➤ Type: Diaphragm type  ➤ Flow rate: 10-15 lph  ➤ Pressure: 10-15 bar  ➤ Input supply: 415V, 50Hz, 3 phase
		<ul> <li>D. Geared Motor Gantry</li> <li>0.5 HP, Totally Enclosed Fan Cooled, IP 55 Motor of Class F insulation with input supply of 415V, 50Hz, 3 phase coupled to</li> </ul>

		a suitable worm reduction gear box through a flexible bush and pin coupling of reputed make for a resultant output speed of 15-18 rpm.
		E. Geared Motor for brush
		➤ 1 HP, Totally Enclosed Fan Cooled, IP 55 Motor of Class F insulation with input supply of 415V, 50Hz, 3 phase coupled to a suitable worm reduction gear box through a flexible bush and pin coupling of reputed make for a resultant output speed of 90-100 rpm.
		F. Geared Motor for swinging nozzle bank
		O.25 HP, Totally Enclosed Fan Cooled, IP 55 Motor of Class F insulation with input supply of 415V, 50Hz, 3 phase coupled to a suitable worm reduction gear box through a flexible bush and pin coupling of reputed make for a resultant output speed of 18-20 rpm.
		G. Water nozzles
		Type: Fan jet type Stainless Steel nozzles
		I. Detergent nozzles
		Type: Fan jet type stainless steel nozzles
5	Scope of supply	<ul> <li>The following items shall be supplied along with complete washing machine.</li> <li>Thread braided flexible rubber hose of 1" dia for connecting the service station to machine and pumps.</li> <li>Electric wires from service station to machine and pumps.</li> <li>A set of spare parts including overload relay-2nos, contactor 7to10 amps- 2 nos, control relay-2 nos, chain-2meter, bearing for brush-2nos, bearing for gantry-4nos, nozzles-4nos, manual switch-3nos.</li> <li>Water proof lighting fixtures fully covered, suitable for usage in open area – 4 nos</li> <li>Recommended bus washing detergent – 100 litres.</li> <li>Guide rails manufactured from 100mmx100mmx8mm formed iron angle at the entry side to give easy access for the vehicle.</li> <li>Side brush water splash guard made of SS/Acrylic sheet/high strength PVC stretch sheet be fitted on machine structure.</li> <li>A station for supply services.</li> <li>One maintenance stool of 8 feet height, made of steel tube, powder coated shall be provided for cleaning the nozzles.</li> <li>High pressure trigger gun along with 20 meter length, steel braided 12mm inner dia water hose for washing the wheel</li> </ul>

		handling.
		Traffic locators with LED lights
		Operator's manual (2 sets) specifying all the components and processes of the machine.
		Spare parts catalogue providing the complete list of spare parts, make and authorised dealers in the nearest area of the purchaser.
		The bidder shall impart training to the workmen at site about operation and maintenance of the machine.
	General requirements	All components of the machine shall be zinc plated galvanized/rust proof painted for protection against corrosion. Wherever the coating is done, the thickness shall be minimum 10 micron.
6		The bidder shall submit the engineering specifications of complete washing machine including various parts/subassemblies such as electric motors, pumps, limit switches, transformers, brushes, rail track, bearings etc.
		<ul> <li>All electric wires shall confirm to relevant Indian Standards</li> <li>A test certificate shall be submitted for having tested for</li> </ul>
		satisfactory performance of the machine before delivery.
7	Civil works and space requirement	The bidder shall have to specify the requirement of civil works for site preparation for the erection of unit. The details along with engineering drawing of the complete layout shall be submitted along with the bid.
		Any other requirement out of the scope of supplier shall have to be specified.
		The bidder is responsible for the supply of complete system and satisfactory installation and commissioning of the unit at the site of the purchaser. This shall include the following.
	Supply and installation	Laying of running tracks
		> Laying of guide rails
8		<ul> <li>Erection and setting up of complete machine</li> <li>Installation of complete Electrical and water supply lines from</li> </ul>
		main supply points near the site
		Commissioning and testing of machine
		Any other requirements for satisfactory installation and commissioning of the complete system.
9	Expected life	The entire system shall provide trouble free services for at least 10 years from the date of installation and commissioning.
10	СМС	Comprehensive AMC for 8 years from the date of final acceptance complete in all respects including spare parts, Electrical parts etc. or

		any other reason whatsoever complete in all respects.
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	6 : FUEL INJECTION PUMP TEST BENCH		
SI No	Clause	Requirement	
1	General Description & Application	<ul> <li>This shall be used to check and calibrate the performance of various diesel injection components.</li> <li>This test bench shall be suitable for checking the performance of inline pumps, distributor pumps, Common Rail Direct Injection (CRDI) rail pumps and shall be fit for future diesel injection components.</li> </ul>	
2	Operational requirements	<ul> <li>The test bench shall allow the diesel specialist to check all types of diesel injection pumps which shall include inline pumps, distributor pumps and common rail injectors. The test bench shall also assure testing of any future diesel injection components.</li> <li>The test bench shall adhere to the specifications of the automobile manufacturers and the legal emission regulations.</li> <li>It shall be environmentally compatible and user-friendly.</li> <li>The test bench shall have outstanding true running properties and speed stability to assure high accuracy in repeated tests, especially during injection.</li> <li>It shall have maintenance free drive with high efficiency.</li> <li>The weight counterbalance shall be provided for height adjustment of the test instrument to simplify the work considerably.</li> <li>The electronic fuel delivery measuring system shall be provided for modern diesel injection system testing.</li> <li>All the measurements shall be displayed on monitor in the form of bar graphs with colour coding to show when the tolerances are exceeded.</li> <li>There shall be a provision that all the important settings can be preselected and test defined by means of software.</li> <li>There shall be a measuring system with Measuring Glass Technology (MGT) for pumps up to 12 cylinders.</li> <li>There shall be a provision that the mechanical MGT fuel delivery measuring device can be equipped with a further 2x12 measuring glasses to speed up the testing. By swivelling and moving the measuring glass holder laterally, the test bench shall be adapted for all test requirements.</li> <li>There shall be provision to exchange the measuring glass holder for 12 measuring glasses with 155 ml and 600 ml to</li> </ul>	

		enable larger fuel injection pumps to be tested.
		A. Basic Test Bench
		Dimensions (LxHxW): 2260x1588x860
		Weight: 1000 kg (approx)
		B. Drive
		>> Special motor with thermal and overload protection and
		coupling output shall be
		<ul> <li>Release of power (permanent output): 10.2 kW</li> </ul>
		<ul><li>Release of power (20 min): 15 kW</li></ul>
		<ul><li>Release of power (60s): 17.7 kW</li></ul>
		FI protection: 300 mA
		C. Torque Coupling (permanent)
		> 0 to 590 rpm: <b>164 Nm</b>
		> At 1500 rpm: <b>65 Nm</b>
		> At 2500 rpm: <b>38 Nm</b>
		D. Torque Coupling (60s)
		> 0 to 590 rpm: <b>280 Nm</b>
		> At 1500 rpm: <b>111 Nm</b>
		> At 2500 rpm: <b>67 Nm</b>
	Technical specifications	➤ Speed range: 0 – 4000 rpm
3		Speed control accuracy: <± 1 rpm
		E. Speed control velocity: 250 rpm/s
		F. direction of rotation: anti-clockwise/clockwise
		➢ Positioning accuracy: < 0.1⁰
		Moment of inertia of graduated flywheel: 1.5 kgm²
		> Shaft height: 125 mm
		(from mounting bed to centre of drive coupling)
		G. Drive coupling:
		➤ Multi plate coupling with no play, as per ISO: <b>2600 Nm/</b> <sup>0</sup>
		Power supply 12/24V for start/stop solenoids: 7 A
		H. Supply pump capacity:
		➤ Test oil pressure (low) – 0–600 kPa, 0-22 l/min
		> Test oil pressure (high): 0-6 kPa, 0-1.4 l/min
		Oil lubrication pressure: 0-600 kPa, 0-5.8 l/min
		I. Pressure Gauges:
		➤ Low pressure: <b>0-600 kPa</b>
		➤ High pressure: <b>0-6 Mpa</b>
		Vacuum/pump internal pressure: 0.100-0.250 kPa
		Delivery pump pressure: 0-1.6 Mpa
		Oil lubrication pressure: 0-1 Mpa

## J. Heating/cooling:

- > Test oil heating, electric approx: 2.2 kW
- > Test oil cooling, connection: G1/2 (ISO 288)
- > Cooling water consumption approx: 9 I/min
- ➤ Cooling water temperature max.: 17°C

### K. Fill quantities:

- > Test oil approx.: **50 litres**
- > Storage capacity for waste oil approx: 6 litres
- ➤ Oil lubrication approx: 12 litres

### L. Measuring Glass Technology:

- > Weight: 33/39 kg
- > Dimensions (LxHxW): **825x590x285 / 840x630x290 mm**
- > Speed measurement range: **0-6400 rpm**
- > Speed measurement accuracy: <±0.25%±1 digit
- > Stroke rate range in steps of 50: **50-5000 Stroke**
- > Stroke rate accuracy: <± 0.4 stroke
- > Temperature measurement range: -40°C +150°C
- > Temperature control range: +30°C +60°C
- > Temperature measurement accuracy: 40±0°C: 80±1°C
- > Overflow volume measurement: 15-260 litres/hour
- > Number of measuring points: 12
- ➤ Measuring glass size: 44+260 ml
- > Operation hours counter: 40 years in 0.25 hour cycle

## M. Electronic Fuel Delivery Measuring System:

- > Weight: 68/100 kg
- > Dimensions (LxHxW): **840x630x290 / 630x1700x630 mm**
- > Speed measurement range: **0-5000 rpm**
- > Speed measurement accuracy: <±0.25%±1 digit
- > Temperature measurement range: -40°C +150°C
- > Temperature control range: +30°C +60°C
- > Temperature measurement accuracy: 40±0.5°C: 80±1.2°C
- Overflow volume measurement: 15-400 litres/hour
- > Number of measuring points: 12
- ➤ Measuring range: 0.03-30 litres/hour
- ➤ Max./min. Volume within measurement range: **0.2-3000** mm³/stroke
- ➤ Measuring accuracy:
  - 0.03-0.1 <±3 % litres/hour
  - 0-1 <±2 % litres/hour
  - 1-30 <±3 % litres/hour

		➤ Max. Permissible ambient temperature: 40° C
		Operation hours counter: 40 years in 0.25 hour cycle
		➤ Mains voltage:
		• 230V, 50Hz, 3A
		• 20V, 50Hz, 5A
		The scope of supply shall include the following.
		➤ Basic test bench
		➤ Electronic fuel delivery measuring system including 15" TFT
		monitor for assembly on the test bench
		➤ Electronic fuel delivery measuring system including 15" TFT
		monitor for assembly on the trolley
		> Retrofit kit VP for testing and programming solenoid valve
		controlled distributor type pumps.
		Retrofit kit CR for testing common rail components
		Clamping sets for different types of pumps
		➤ Retrofit kit for common rail injectors including special
		accessory set for BOSH 1 <sup>st</sup> & 2 <sup>nd</sup> generation common rail
		injectors.
		> Special accessory (tools) set for common rail injectors for
		commercial vehicles
	Scope of supply	Standard processor unit without keypad
		➤ Computing unit with measurement PCBs without keypad
4		including VPM 844 software
		Upgrade of common rail computer unit for testing of distributor pumps.
		➤ Specific keypad
		<ul> <li>Report printer and printer connecting cable</li> </ul>
		<ul> <li>Heat exchanger required for supplementary equipment sets</li> </ul>
		➤ Recirculation cooler 5 kW and 10 kW
		➤ EPS oil lubrication supply 200-500V
		➤ Mechanical fuel delivery measuring device, measuring glass
		holder including measuring glass operating unit
		➤ Mechanical fuel delivery measuring device, measuring device
		including operating unit with lateral shift for 4-fold equipping
		and the option of using larger measuring glasses.
		Measuring glass lighting
		➤ Extension kit from 12 measuring glasses 44/260 ml of delivery
		to 24 glasses 44/260 ml
		Measuring glass unit with 12 measuring glasses 155 ml and 12
		measuring glasses 440/600 ml
		➤ Common rail diesel injector testing machine for testing CRI

		and CRIN injectors up to 1800 bar pressure to be supplied with universal clamping device and injection chamber covered with protection cover. Equipment should have capability to generate IQA Code (EMA Code) after servicing the injectors. OEM test charge to be preloaded in the machine. Machine should be able to test Piezo Injectors Testing.	
5	Supply and installation	The bidder is responsible for the supply, installation and satisfactory commissioning of the complete test bench along with all necessary accessories.	
6	Training	Training The successful bidder shall provide training on operation of the test bench to at least 5 technicians at the site of the purchaser.	
7	Civil works and space requirement	<ul> <li>The bidder shall have to specify the requirement of civil works for site preparation for the erection of unit. The details along with engineering drawing of the complete layout shall be submitted along with the bid.</li> <li>Any other requirement out of the scope of supplier shall have to be specified.</li> </ul>	
10	СМС	Comprehensive AMC for 8 years from the date of final acceptance complete in all respects including spare parts, Electrical parts etc. or any other reason whatsoever complete in all respects.	

	7: LATHE MACHINE		
SI No	Clause	Requirement	
1	General Description & Application	The centre lathe is intended for machining the metal components. It shall be used for various operations like cutting, threading, knurling, drilling, facing, turning etc. with tools that are applied to the work piece to create an object which has symmetry about an axis of rotation.	
		A) Machine Specifications	
		Swing over machine bed: 425-450 mm	
		Swing over cross slide: 225-250 mm	
		Distance between centers: 3000-3100 mm	
		Turning length: 2800-2850 mm	
		Width of bed: 315 mm minimum	
		B) Work Spindle:	
		> Spindle bore: <b>80 mm min</b>	
		Taper bore (shortened): MT-5 or higher	
		Min. Diameter of face plate and clamping disc: 315 mm	
		C) Tool Slide	
		Graduation of longitudinal scale on apron box hand wheel: 0.2	
		mm	
		Graduation of scale on cross slide spindle: 0.05 mm	
	Technical	Graduation of scale on compound slide spindle: 0.05 mm	
2	Specifications	Compound slide travel: 140 mm min	
		D) Tail stock with hand wheel	
		> Stroke of quill: <b>150-170 mm</b>	
		➤ Dia. Of center sleeve: <b>50 mm</b>	
		> Taper socket: MT-4 or higher	
		> Scale graduation on center sleeve: 1.0 mm	
		Scale graduation on hand wheel: 0.05 mm	
		> Cross travel: ±10 mm	
		E) Drive	
		> No of speed ranges: 8	
		<ul><li>Speed range: 30-1235 RPM</li><li>No of feeds: 32</li></ul>	
		F) Threads Pitches with standard change gear set	
		> BS threads: 2-30 T.P.I.	
		➤ All standardised metric threads: <b>0.5-6 mm pitch</b>	
		➤ Lead screw pitch: 6mm / 4 T.P.I.	
		Leau Sciew pitch. Offilit / 4 f.F.i.	

		<ul> <li>Motor power: 3 HP/1440 RPM, F classoverload protection.</li> <li>G) Coolant tank with pump: 12-15 litres</li> <li>H) Lubrication System: Automatic in Head Stock,</li> </ul>	
		Apron Gear Box	
		Parameter	Permissible Limit
		Straightness of carriage slide ways in longitudinal direction	0.03 mm/m convex
		Straightness of carriage slide ways in transverse direction	0.04 mm/m
		Run out of spindle nose, centering sleeve or cone	0.01 mm
		Parallelism of tail stock movement to the carriage movement in horizontal plane and vertical plane for any length of <b>300</b> mm	0.03 mm for any length of 300 mm
		True running of taper bore of the spindle near to the spindle nose	0.01 mm
	3 Accuracies Required	True running of taper bore of the spindle at a distance of maximum 300 mm	0.02 mm for 300 mm length
3		Parallelism of spindle axis to the carriage movement in vertical plane	0.02 mm per 300 mm length, free end of the mandrel inclined upwards only
		Parallelism of spindle axis to the carriage movement in horizontal plane	0.015 mm per 300 mm length, free end of the mandrel inclined towards tool only
		Parallelism of taper bore of tailstock sleeve to the carriage movement in vertical plane	0.03 mm per 300 mm length, free end of the mandrel inclined upwards only
		Parallelism of taper bore of tailstock sleeve to the carriage movement in horizontal plane	0.03 mm per 300 mm length, free end of the mandrel inclined towards tool only

		Difference in height between head stock and tail stock (tail stock center higher than head stock center)	0.04 mm
		Squareness of the traverse movement of the cross slide to the spindle axis	0.02 mm per 300 mm length
4	Material requirements	<ul> <li>Headstock gears shall be made out of are hardened and profile ground conforr</li> <li>Bed shall be inverted V type and deep in made of close grained cast iron wi withstand tensional strains. The bed s ground with hardness of minimum 350 E</li> <li>Carriage shall be wide enough to have surface with rigid tool support. The slic scrapped. This shall carries the cross sli rest with a 4-way indexing tool post. W prevent chips entering underneath.</li> <li>Apron shall be double wall oil bath independent motion for feeds and interlocking arrangements. Worm and used to engage auto feed for surfacing bearings and the worm shall be lubricated.</li> <li>Tail stock spindle shall be hardened conforming to EN-8.</li> <li>The lathe machine shall be incorporate features top ensure highest level of satioperator.</li> </ul>	ming to EN-353. section which shall be the diagonal webs to hall be hardened and BHN. The a maximum bearing designed be accurately defined and the compound dipers shall be fitted to the type designed with screw cutting with worm gear shall be and sliding. All gears, and in the oil sump. The designed with all safety with all safety
5	Scope of Supply (accessories)	The scope supply shall include the following.  True chuck plate  Dog chuck plate  True chuck  Dog chuck  Tool post spanner  Centre adopter  Dead centres - 2  Electric motor  Steady rest  Follow rest  Face plate  Taper turning attachment  Coolant pump, tank and related fittings  Machine lamp CFL/LED type	

		> Rear splash guard
		Metric pitch lead screw and other screws
		Quick change tool post with tool holder
		Separate lead screw and feed shaft
		➤ Oil can
		> Any other accessories required for the satisfactory operation
		of the unit.
4	Supply and	The bidder is responsible for the supply, installation and
4	installation	commissioning of the unit at the site of the purchaser.
5	Expected life	The unit shall provide trouble free services for at least 10 years from
3	Expected life	the date of installation and commissioning.
		Comprehensive AMC for 8 years from the date of final acceptance
6	СМС	complete in all respects including spare parts, Electrical parts etc. or
		any other reason whatsoever complete in all respects.

8: FULLY BUILT BREAKDOWN RELIEF VAN			
SI No	Clause	Requirement	
1	General Description & Application	Breakdown relief van shall be used for attending the repairs of vehicle meeting with breakdown in en route. It shall be closed vehicle with a facility to carry required tools, equipment and mechanics.	
2	Technical specifications of chassis	A. Dimensions  ➤ Wheel base: 3150 mm (minus tolerance of 30mm)  ➤ Overall length: 5370 mm maximum  ➤ Overall width: 1860-mm  ➤ Load body (lxb): 2565x1675  B. Engine  ➤ Type: Direct injection turbocharged diesel engine conforming to BS-IV emission norms  ➤ Capacity: 2956 cc  ➤ Output: 72hp@3000rpm  ➤ Torque: 223Nm@1600-2200rpm  C. Performance  ➤ Max. Speed: 120kmph  ➤ Grade ability: 32% at GVW  ➤ Max. Turning circle dia: 12.7 meter  D. Clutch  ➤ Single plate dry friction diaphragm type  E. Gear Box  ➤ Synchromesh on all gears with 5 forward and 1 reverse speed  F. Steering  ➤ Power steering with tilt-able, collapsible steering column  G. Suspension  ➤ Semi-elliptical leaf spring suspension with anti-roll bar on both front and rear  H. Brakes  ➤ Type: Vacuum assisted, independent, hydraulic brakes  ➤ Front: Disc brakes  ➤ Rear: Drum brakes  ➤ ABS on all wheels  ➤ There shall be Graduated hand controlled, spring actuated parking brakes acting on rear wheels  I. Wheels and Tyres  ➤ 215/75 R16 tubeless Radial tyres	

		J. Fuel tank capacity
		<ul> <li>Should be sufficient to run the vehicle minimum 400 kilometres between consecutive fillings.</li> </ul>
		K. Seats
		Seating Capacity = 5
		D+1 with bucket seats covered with fabric
		3 Passenger Seats(Mechanics) with sliding windows.
		L. Electrical
		System voltage: 12 Volts
		➤ Battery: 12 V, 150Ah, 1 nos
		<ul><li>Self-starter: 12 V,</li></ul>
		Alternator: 12 V,
		Wiper: two speed, electrical
		L. Other features required
		Both front and rear towing hook is required. The towing hook shall be heavy duty with minimum 1.2 times the kerb weight of the van.
		<ul><li>Mobile charging point is required</li></ul>
		<ul> <li>Canopy shall be constructed on load body with steel tubes of 32mm dia and 3mm thickness and aluminium panelling of 3mm thick with roof insulation to deflect heat.</li> <li>The height of the canopy shall be 3 meters from the ground.</li> <li>The roof of the canopy shall be leak proof.</li> <li>There shall be racks/shelves to store the spare parts,</li> </ul>
3	Canopy	assemblies, tools etc. as per requirement of the purchaser and material so for fabrication will be selected by the purchaser.
		➤ Lockable door with 2 panes shall be provided at back.
		> The canopy shall have roof light
		The canopy shall be powder coated using polyurethane paints to protect against the corrosion.
4	Certifications	The vehicle model should have been approved by ARAI/CIRT and be in compliance with CMVR. The approval certificates are to be submitted by the bidder.
6	Expected life	Minimum 10 years from the date of supply.
7	СМС	Comprehensive Annual Maintenance Contract (AMC) for 8 years which includes all the spare parts, electrical parts or any other parts thereof complete in all respects but excluding Tyres.

	9 : FULLY BUILT RECOVERY VAN (TRUCK)			
SI No	Clause	Requirement		
1	General Description & Application	This truck shall be applicable to move disabled, improperly parked, impounded, or otherwise indisposed motor vehicles. This may involve recovering a vehicle damaged in an accident, returning one to a drivable surface in a mishap or inclement weather, or towing or transporting one via flatbed to a repair shop or other location.		
		A. Dimensions		
	Chassis specifications  C. P.  D. C.  E. G.	<ul> <li>➤ Wheel base: 4225 mm</li> <li>➤ Front overhang: 1185 mm</li> <li>➤ Rear overhang: 1560 mm</li> <li>➤ Overall width: 2434 mm</li> <li>➤ Ground clearance: minimum 248 mm</li> <li>B. Engine</li> <li>➤ Type: compression ignition, turbocharged, intercooled diesel engine</li> <li>➤ No of cylinders: 6 inline</li> <li>➤ Capacity: 5883 CC</li> </ul>		
2		<ul> <li>Output: 130 HP at 2500 rpm</li> <li>Max torque: 490 Nm at 1500 rpm</li> <li>Emissions norms: Conforming to BS IV</li> <li>Capacity of cooling system: 22 litres</li> <li>C. Performance</li> </ul>		
2		<ul> <li>Max. Speed: 80 kmph</li> <li>Grade ability: 22°</li> <li>Min turning circle dia: 17600 mm</li> <li>Angle of approach: 36°</li> <li>Angle of departure: 29°</li> <li>Ramp over angle: 17°</li> <li>Clutch</li> <li>Single plate, dry friction type, hydraulic actuated clutch</li> <li>E. Gear Box</li> <li>Type: synchromesh on all forward gears and constant mesh on reverse gear</li> <li>No of gears: 6 forward, 1 reverse</li> <li>Drive: both front and rear (4 wheel drive)</li> </ul>		
		F. Steering		

		Down assisted hydraulic type steering
		➤ Power assisted hydraulic type steering
		G. Suspension
		➤ Semi elliptical leaf spring at both front and rear with hydraulic
		double acting telescopic shock absorbers at front and rear.
		H. Brake
		➤ Dual circuit full air brakes, with disk brake at front and drum
		type arrangement at rear brakes.
		➤ Anti-lock braking system is required
		➤ There shall be Graduated hand controlled, spring actuated
		parking brakes acting on rear wheels.
		I. Wheels and Tyres
		➤ No of wheels: 4
		➤ No of tyres: 6 (2 at front+ 4 at rear)
		Size: 10x20 steel radial tyres with Rib type at front and Lug type at rear
		J. Electrical
		➤ System voltage: 24 Volts
		➤ Battery: 12 V, 150Ah, 2 nos
		<ul> <li>Self-starter: 24 V, Electronic Circuit protection for the cranking</li> </ul>
		motor to prevent engaging of the motor for no more than 30
		seconds at a time to prevent overheating
		Alternator: 24 V, 45 Amps
		Wiper: two speed, electrical
		K. fuel tank:
		> Type: metallic
		> Filling capacity: Should be sufficient to run the vehicle
		minimum 800 kilometres between consecutive fillings.
		L. Control cab and seating:
		Semi forward control fully built cab
		➤ Seating: driver + 1
		A. Fully built vehicle dimensions
		> Overall length: 7420 mm
		> Overall width: 2424 mm
		Overall height (un-laden): 3300 mm
	Specifications for	➤ Boom length: 3380 mm
3	recovery van	➤ Wire rope length: 90 meters
	-	➤ Wire rope dia: 13 mm
		B. Structure details
		Sub frame long member: ISMC 125x65 mm
		➤ Sub frame cross member: ISA 75x75x5 mm

		>	Floor/platform thickness & type: 5 mm Chequered. Sheet	
		>	Boom structure: 90 dia x 6.3 mm thick	
		>	Side stabilizers: outer 110x110x3.15 thick inner	
		>	Rear stabilizers: outer 80x80x3.15 thick inner	
	C. Material specifications			
		>	Sub frame: shall be confirming to IS 808 ISMC	
		>	Boom: shall be confirming to IS 4923 (MS pipe)	
		>	Floor/platform: Fe 410W confirming to IS 2062-2006	
		>	Lifting hook capacity: 7 ton	
		>	Breaking strength of wire rope: 13 Ton	
		D. Service Winch		
		>	Type of winch: Mechanical type with Ratio 1:312 after PTO	
		>	Pulling capacity: min 5 Ton	
		>	Pulling speed: 3 m/min at idling speed	
		>	Winch drive: gear and pinion and power supply by PTO with chain and sprocket	
		>	Gear box model: mechanical type	
		>	Gear box ratio: reduction ratio 57:1	
	E. Boom		m	
		>	Type: swing type double boom	
		>	Vertical swing: 68 deg	
		>	Horizontal swing: 130 deg	
		>	Boom winch rope: wire dia 11mm and rope length 16 meter	
		>	Ratchet: manual type ratchet drum with dia 140 mm	
		F. Integ	gration	
		>	Shall be mounted with chassis main frame using U bolts	
		G. Elec	trical	
		>	All electrical components shall be as per AIS 008	
		>	Rear marker, height marker lamps etc., shall be as per AIS 090	
		H. Pain	ting and Rust prevention	
		>	Painting shall be made using polyurethane paints to protect	
			against the corrosion.	
			Grease shall be applied on all movable parts	
		>	All fasteners shall be Zinc plated green passivity.	
		>	There shall be denitrol application on fasteners	
		The fol	lowing accessories shall be supplied along with recovery van	
		>	Fully telescopic tow bar assembly – 1 no	
4	Accessories required		Swivelling search light with 15 m wire – 1 no	
			Boom lights: 2 nos	
		>	Ground anchor: 1 no	

7	СМС	Comprehensive Annual Maintenance Contract (AMC) for 8 years which includes all the spare parts, electrical parts or any other parts thereof complete in all respects but excluding Tyres.	
6	Expected life	Minimum 10 years from the date of supply.	
		<ul> <li>Crank handle – 2 nos</li> <li>Spare shear pin – 2 nos</li> <li>5 ton capacity D shackles fitted on body</li> <li>All tools necessary to work with recovery van</li> <li>Any other accessories required for satisfactory operation of the recovery van.</li> </ul>	
		<ul> <li>Spot lights: 2 nos</li> <li>Working light: 2 nos</li> <li>Snatch block: 2 nos</li> <li>Towing chain: 2 nos</li> <li>Towing bar fixed type: 1 no</li> </ul>	

# 10: TYRE WHEEL RETREADING PLANT

S.no	Description of Goods	Qty
1.	Tire Buffer with Expandable Hub to buff Tire Sizes from 12" to 24" and motorized turn table arrangement	1
1.	Cyclone Filter	1
2.	Expandable Rims	
	15/16"	2
	20"	2
	22.5"	2
3	Tread Builder with Expandable Hub to build tyre sizes from 12" to 24" and pneumatic cutter	1
4	7 Tyre Electric Curing chamber with both sides dish ends 60" with pneumatic controlled locking system	1
5	Monorail for 7 tire chamber with chains and trolleys	1
6	Inspection Spreader (Motorized and Pneumatic Controlled)	1
7	Envelope expander	1
8	Tyre Stand with trolley wheel	4
9	Vacuum Pump	1
10	Curing Rims	

700x15" forged high flange curing rims with 1 bottom and 1 top	14 sets
pottom and 1 top	
600x16" forged high flange curing rims with 1	14 sets
bottom and 1 top	
750x16" forged high flange curing rims with 1	14 sets
bottom and 1 top	
900/1000x20 Forged high flange curing rims with 1	14 sets
bottom & 1 top with bead seal plate	
1200x22.5"Forged high flange curing rims with 1	
bottom & 1 top with bead seal plate	14 sets

# 7 Tyre Electric Curing Chamber:

S.No	Title	Value
1.	Tyre Range	Rim diameter 12-24"
2.	Required Pressure	8 kg/cm^2
3.	Power Supply	7.5 KW /440 V.3 Ph 50 Hz (AC Motor)
4.	Dimension (Length x Breadth x Height) in mm	1500x1500x1700

# Tread Builder:

S.No	Title	Value
1.	Tyre Range	Rim diameter 12 to 24"
2.	Required pressure	8 kg/cm^2
3.	Power Supply	0.75 KW/220V 1ph 50HZ (DC Motor)

4.	Dimension (Length x	1100x1100x1800
	Breadth x Height) in mm	

## **Electric Chamber Technical Specifications**

- 1. Length of chamber -2000mm
- 2. Thickness of steel plate for both side dish ends and shell- 12 mm
- 3. Electrical heaters make- Escorts, capacity-21 KW
- 4. Blower motor capacity- 10 HP, 1440 RPM with extension shaft
- 5. Gland packing details Inmarco 8 mm thickness, 103 style
- 6. Door hinge system design- Swivel
- 7. Door locking system- Pneumatic type locking system
- 8. Temperature controller.
- 9. Pressure gauge. 0-25 kG/CM2
- 10. Pneumatic Controllers.
- 11. Electrical relays and controllers.

Expected life	Minimum 10 years from the date of supply.	
СМС	Comprehensive Annual Maintenance Contract (AMC) for 8 years which includes all the spare parts, electrical parts or any other parts thereof complete in all respects	

	11. AIR COMPRESSOR 15 H.P.			
SI No	Clause	Requirement		
1	General Description & Application	Screw type silent air compressor system consisting of compressor, integrated/stand-alone refrigeration type air drier and pre filter is required to supply dry and filtered air.		
2	Air Inlet System	<ul> <li>Shall have pre filter to ensure clean air supplied to the inlet system.</li> <li>Shall have air duct to guide the air from the atmosphere to the air cleaner</li> <li>Air Cleaner Housing shall have the following:         <ul> <li>Twin paper element, each of 4 micron with an efficiency of 99%.</li> <li>Plastic baffle on the air cleaner to separate heavy particles and avoid clogging of paper element.</li> <li>Clog indicator which shall effects when pressure drop exceeds 420-600mm of water column.</li> <li>Rubber coupling connecting air filter to the intake valve.</li> </ul> </li> <li>Shall have NC type Intake Valve with integrated blow down valve and solenoid valve.</li> </ul>		
3	Drive System	<ul> <li>Shall have 3 phase, 50 Hz, 400 V, eff1 squirrel cage induction motor with TEFC Class F insulation.</li> <li>It shall also have the following.         <ul> <li>Belt type</li> <li>Flexible coupling for air end and motor.</li> <li>Adaptor ring connecting motor and air end flange.</li> <li>Coupling guard.</li> <li>Control panel with</li> <li>O Star-Delta Starting with contactors for the main motor.</li> <li>O DOL starter with contactor for cooling motors.</li> <li>O Overload relay for main motor.</li> <li>Fan motor with inbuilt overload relay.</li> </ul> </li> </ul>		
4	Integrated/stand alone Refrigeration type Air Dryer	<ul> <li>Compressor unit shall have an integrated/ stand-alone air cooled refrigeration type Air dryer with moisture trap.</li> <li>Air Fluid separation system &amp; Dryer</li> <li>Capacity of air dryer shall be 2.27 m³/m</li> <li>Max. Working pressure shall be 15 kg/cm²</li> </ul>		

		-1
5	Cooling System	The system shall have cooling system with fans and larger cooling surface area to enhance the cooling of hot air. The cooling system shall have the following.  Cooling air duct that separates hot and cold zone inside the compressor.  Aluminium oil cooler.  Aluminium after cooler  Cooling fan cum integrated motor.
6	Lubrication System	<ul> <li>Shall have high capacity spin-on filter element with 10 microns rating.</li> <li>Shall have Return oil line from separator tank to air end</li> <li>Shall have rigid pipe connections for long life and leak free operation.</li> </ul>
7	Discharge System	<ul> <li>Shall have Receiver Tank (conforming to ASME norms), incorporating OSBIC (Oil Separation By Impact and Centrifugal Action) principle mounted on base frame with         <ul> <li>Oil filling plug</li> <li>Oil drain with ball valve</li> <li>Pressure relief valve</li> <li>Oil sight glass</li> </ul> </li> <li>It shall have single air-oil separator element.</li> <li>Shall have metallic hose from air end to receiver tank.</li> <li>Shall have minimum pressure valve.</li> <li>Shall have moisture separator.</li> <li>Shall have service ball valve outside the canopy/casing.</li> </ul>
8	Controls and Indications	The compressor system shall have following controls and indications  NC type intake valve  Pressure Transmitter.  Temperature transmitter.  Neuron II micro controller- 24V AC with  a 2 analog & 9 digital inputs  Emergency stop  High sump pressure trip with indication  Single phase preventer with reverse rotation trip  Fan motor trip with indication  Main motor trip with indication  2 line 16 character alpha numeric display  1 analog output 0-10DC – pressure selectable  6 relay outputs for  Main/fan

		o Delta			
		o Delta			
		o Load/unload valve			
		o General warning			
		o General trip			
		Service menu indicating the change of following			
		o Air filter			
		o Oil filter			
		o Air-oil separator			
		o Lubricating oil			
		o Motor re-greasing			
		History of last 99 trips			
		Tome and pressure weekly schedule			
		The compressor shall be designed to ensure highest level of safety for			
		the following.			
	Safety and	Pressure regulating valve			
9	protection	➤ High pressure			
	procession	High temperature			
		Pressure relief valve			
		Phase order and single phase			
		The compressor shall be supplied with the following technical			
		parameters.			
		> Capacity (free air delivery)@ max pressure: 50 CFM			
		➤ Max. Working pressure: 13 kg/cm²			
		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> </ul>			
		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> </ul>			
	Technical	<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> </ul>			
10	Technical Specifications	<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 15 HP, Sq. Cage induction motor, TEFC type suitable for</li> </ul>			
10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 15 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class</li> </ul>			
10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 15 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> </ul>			
10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 15 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> </ul>			
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10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 15 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> <li>Capacity of vertical air receiver tank: 350 litres</li> <li>Working pressure of air receiver tank: 12.5 kg/cm²</li> </ul>			
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10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 15 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> <li>Capacity of vertical air receiver tank: 350 litres</li> <li>Working pressure of air receiver tank: 12.5 kg/cm²</li> <li>Max. Noise level: less than 70 Decibels.</li> <li>The screw compressor shall be CE certified.</li> </ul>			
10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 15 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> <li>Capacity of vertical air receiver tank: 350 litres</li> <li>Working pressure of air receiver tank: 12.5 kg/cm²</li> <li>Max. Noise level: less than 70 Decibels.</li> <li>The screw compressor shall be CE certified.</li> </ul>			
	Specifications	<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 15 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> <li>Capacity of vertical air receiver tank: 350 litres</li> <li>Working pressure of air receiver tank: 12.5 kg/cm²</li> <li>Max. Noise level: less than 70 Decibels.</li> <li>The screw compressor shall be CE certified.</li> <li>The scope of supply of the compressor shall include the following</li> <li>Screw air compressor having capacity of 50 cfm, 15 HP motor</li> </ul>			
10		<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 15 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> <li>Capacity of vertical air receiver tank: 350 litres</li> <li>Working pressure of air receiver tank: 12.5 kg/cm²</li> <li>Max. Noise level: less than 70 Decibels.</li> <li>The screw compressor shall be CE certified.</li> <li>The scope of supply of the compressor shall include the following</li> <li>Screw air compressor having capacity of 50 cfm, 15 HP motor</li> <li>Refrigerated type air dryer suitable for above compressor</li> </ul>			
	Specifications	<ul> <li>Max. Working pressure: 13 kg/cm²</li> <li>Normal working pressure: 12.5 kg/cm²</li> <li>No of stages: Single stage</li> <li>Cooling System: Air cooled</li> <li>Motor: 15 HP, Sq. Cage induction motor, TEFC type suitable for operation on 400±10% V, 3 phase, 50 Hz. AC supply, F class insulation with IP55 degree of protection.</li> <li>Max. Oil content in air: 1 PPM</li> <li>Capacity of vertical air receiver tank: 350 litres</li> <li>Working pressure of air receiver tank: 12.5 kg/cm²</li> <li>Max. Noise level: less than 70 Decibels.</li> <li>The screw compressor shall be CE certified.</li> <li>The scope of supply of the compressor shall include the following</li> <li>Screw air compressor having capacity of 50 cfm, 15 HP motor</li> </ul>			

		<ul> <li>valve, pressure gauge</li> <li>Suitable pre filter</li> <li>Suitable fine filter</li> <li>Suitable carbon filter oil content 0.003 microns</li> <li>Lubricating oil</li> <li>Electrical cables conforming to relevant Indian Standards for input power supply to the system.</li> <li>Operator's manual giving complete information about the machine and its operations.</li> </ul>
12	Civil works and space requirement	<ul> <li>The bidder shall have to specify the requirement of civil works if any for the erection of unit.</li> <li>The requirement of space for the installation of one complete system to be informed.</li> </ul>
13	Supply and installation	The bidder is responsible for the supply of complete system and satisfactory installation and commissioning of the unit at the site of the purchaser.
14	Marking	The equipment shall be supplied with the following information legibly marked on the machine.  Name plate shall be provided with the information of manufacturers name, trade mark, model no, year of manufacture.  Information regarding electrical power requirements, output parameters.
15	Expected life	The screw compressor supplied shall provide trouble free services for at least 10 years from the date of installation and commissioning.
16	СМС	Comprehensive AMC for 8 years from the date of final acceptance complete in all respects including spare parts, Electrical parts etc. or any other reason whatsoever complete in all respects.

### 4. Inspections and Tests

The following inspections and tests shall be performed:

#### 1. Inspection and tests prior to shipment of Goods and at final acceptance are as follows:

- The Inspection test will be conducted by committee constituted by the purchaser/their consultant or any other person nominated by the purchaser at the manufacturer's premises. The inspection of the goods shall be carried out to check whether the goods are in conformity with the technical specifications attached to the purchase- order form and shall be in line with the inspection/test procedures laid down in the technical specifications and the General Conditions of contract. The supplier will dispatch the goods to the ultimate consignee after inspection by the Committee along with the supplier's and Committee's inspection report. The purchaser will also test the equipment after completion of the installation and commissioning at the site of the installation. For site preparation, the supplier should furnish all details to the purchaser sufficiently in advance so as to get the works completed before receipt of the equipment. Complete hardware and software (if applicable) as specified in section VI should be supplied, installed and commissioned properly by the supplier prior to commencement of performance tests.
- II. The acceptance test will be conducted by committee constituted by the purchaser/their consultant or any other person nominated by the purchaser, at its option. The acceptance will involve trouble free operation for seven consecutive days. There shall not be any additional charges for carrying out acceptance tests. No malfunction, partial or complete failure of any part of hardware or excessive heating of motors attached to printers, drivers etc. or bugs in the software should occur. All the software should be complete and no missing modules/sections will be allowed. The supplier shall maintain necessary log in respect of the results of the tests to establish to the entire satisfaction of the purchaser, the successful completion of the test specified. An average uptake efficiency of 99 % for the duration of test period shall be considered as satisfactory.

After successful completion of acceptance tests to entire satisfaction of purchaser, supplier will hand over the supplied goods to the purchaser complete in all respects.

III. In the event of the hardware and software (if applicable) failing to pass the acceptance test, a period not exceeding two weeks will be given to rectify the defects and clear the acceptance test, failing which the purchaser reserves the rights to get the equipment replaced by the supplier at no extra cost to the purchaser.

#### 2. Manuals:

- ➤ Before the goods and equipment are taken over by the Purchaser, the Supplier shall supply operation and maintenance manuals of the goods and equipment. These shall be in such detail as will enable the Purchaser to operate the equipment as stated in the specifications.
- The manuals shall be in the ruling language (English) and in such form and numbers as stated in the contract.

➤ Unless and otherwise agreed, the goods and equipment shall not be considered to be completed for the purpose of taking over until such manuals have been supplied to the Purchaser.

#### 3. For the System and Other Software the following will apply:

The Supplier shall provide complete and legal documentation of hardware, and licensed operating systems. The supplier shall also indemnify the purchaser against any levies/penalties on account of any default in this regard.

#### 4. Acceptance Certificates:

On successful completion of acceptability test, receipt of deliverables, etc. and after the purchaser is satisfied with the working on the system, the acceptance certificate signed by the supplier and the representative of the purchaser will be issued. The date on which such certificate is signed shall be deemed to be the date of successful commissioning of the systems.

# 5. PROFORMA OF CERTIFICATE FOR ISSUE BY THE PURCHASER AFTER SUCCESSFUL INSTALLATION AND STARTUP OF THE SUPPLIED GOODS

No.			Date:	
M/s.				
Sub:	<u>Certifi</u>	cate of start-up of the supplied Goods	<u>5</u>	
1.	good Para N	condition along with all the standar	ent as detailed below has/have been received in d and special accessories (subject to remarks in the with the Contract/Specifications. The same has	n
	(a) (b) (c) (d)	Sl. No	dated	
	(d) (e) (f) (g)	Name of the consignee	dated	
2.	Detail	s of accessories/spares not yet supplie	ed and recoveries to be made on that account.	
	<u>S. No.</u>	<u>Description</u>	Amount to be recovered	
3.	•	oving test has been done to our entir	e satisfaction and operators have been trained to	0
4.	The su	pplier has fulfilled his contractual obl	igations satisfactorily. *	
		Or		
	The su	pplier has failed to fulfil his contractu	al obligations with regard to the following:	
	(a)			
	(b)			
	(c)			
	(d)			

5.		The amount of recovery on account of non-supply of accessories and spares is given under Para No. 2.		
6.		The amount of recovery on account of failure of the supplier to meet his contractual obligations is as indicated in endorsement of the letter.		
		Signature		
		Name		
		Designation with Stamp		
*		Explanatory notes for filling up the certificates:		
(	(a)	He has adhered to the time schedule specified in the contract in dispatching the documents/drawings pursuant to Technical Specifications.		
(	(b)	He has supervised the start-up of the plan in time i.e., within the period specified in the contract from the date of intimation by the Purchaser in respect of the installation of the plant.		
(	(c)	Training of personnel has been done by the supplier as specified in the contract		
(	(d)	In the event of documents/drawings having not been supplied or installation and start up of the plant have been delayed on account of the supplier, the extent of delay should always be mentioned.		
Note	e: Ti	his form is for the information only. It is not to be filled and submitted / uploaded along with		

the bid

### 6. Proforma for Performance Statement

[Please see ITB Clause 38.2 and Section III-Evaluation and Qualification Criteria]

Proforma for Performance Statement (for a period of last five/ three years)

Bid No Name of th		D:	•	ening		Tim	e Hours
Order	Order	Description	Value	Date	of	Remarks	Has the equipment
placed by	No.	and	of	complet	ion of	indicating	been satisfactorily
(full	and	quantity of	order	deliv	ery	reasons	functioning? (Attach
address of	date	ordered				for late	a certificate from the
Purchaser)		equipment				delivery,	Purchaser/Consignee
						if any	)
				As per contract	Actual		
1	2	3	4	5	6	7	8
Signature a	nd seal o	of the Bidder					

Note: This form is to be completed and submitted / uploaded along with the supporting document if any.

# 7. Declaration for Claiming Excise Duty Exemption

# (Name of the Project)

Bid. No	o		
		f item to be supplied	
(Inforr	nation	for issue of certificate for claiming exemption ation No. 108/95)	
(Bidde	r's Nar	me and Address):	
To, XXXXX Chand	-	ransport Undertaking (CTU)	
Dear S	ir:		
1.	have	onfirm that we are solely responsible for obt considered in our bid and in case of failure to soever, Purchaser will not compensate us.	•
2.		re furnishing below the information required icate in terms of Central Excise notification n	· ·
	(i)	Ex-factory price per unit on which ED is pa	ayable:*Rs
	(ii)	No of Units to be supplied:	
	(iii)	Total cost on which ED is payable	(Rs.)
		requirements listed above are as per	
		ent notifications. These may be modified, sessary, in terms of the rules in force)	
	,	,,	(Signature)
			(Printed Name)
			(Designation)
			(Common Seal)

\* Please attach details item-wise with cost, if there is more than one item. The figures indicated should tally with what is given in the price schedule.

Note: This Forms needs to be completed and submitted / uploaded along with supporting document if any.

**PART 3 – CONTRACT** 

**Section VII – General Conditions of Contract** 

# **Section VII. General Conditions of Contract**

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

- (a) "Bank" means the World Bank and refers to the International Bank for Reconstruction and Development (IBRD) or the International Development Association (IDA).
- (b) "Contract" means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- (c) "Contract Documents" means the documents listed in the Contract Agreement, including any amendments there to.
- (d) "Contract Price" means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
- (e) "Day" means calendar day.

#### 1. Definitions

- (f) "Completion" means the fulfilment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- (g) "GCC" mean the General Conditions of Contract.
- (h) "Goods" means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
- (i) "Purchaser's Country" is India.
- (j) "Purchaser" means the entity purchasing the Goods and Related Services, as specified in the **SCC.**
- (k) "Related Services" means the services incidental to the supply of the goods, such as insurance, installation, start-up, training and initial maintenance and other such obligations of the Supplier under the Contract.
- (I) "SCC" means the Special Conditions of Contract.
- (m) "Subcontractor" means any natural person, private or government entity, or a combination of the above, to which any part of the Goods to be supplied or execution of any part of the Related Services is

	subcontracted by the Supplier.	
	"Supplier" means the natural person, private or government or a combination of the above, whose bid to perform the Co has been accepted by the Purchaser and is named as such Contract Agreement.	ntract
	"The Project Site," where applicable, means the place named SCC.	in the
2. Contract Documents	Subject to the order of precedence set forth in the Co Agreement, all documents forming the Contract (and all parts th are intended to be correlative, complementary, and mu explanatory. The Contract Agreement shall be read as a whole.	ereof)
3. Fraud and Corruption	If the Purchaser determines that the Supplier has engaged in confraudulent, collusive, coercive or obstructive practices, in comfor or in executing the Contract, then the Purchaser may, after 14 days' notice to the Supplier, terminate the Supplier's employ under the Contract and cancel the contract, and the provision Clause 35 shall apply as if such termination had been made under Clause 35.1. (a) For the purposes of this Sub-Clause: <ul> <li>(i) "corrupt practice" is the offering, giving, received soliciting, directly or indirectly, of anything of valuation in influence improperly the actions of another part;</li> <li>(ii) "fraudulent practice" is any act or omission, inclusting misrepresentation, that knowingly or reclaminated or other benefit or to avoid an obligation;</li> <li>(iii) "collusive practice" is an arrangement between the more parties designed to achieve an improper purincluding to influence improperly the actions of another parties designed to achieve an improper purincluding to influence improperly the actions of another parties designed to achieve an improper purincluding to influence improperly the actions of another parties designed to achieve an improper purincluding to influence improperly the actions of another parties designed to achieve an improper purincluding to influence improperly the actions of another parties.</li> </ul>	peting giving yment ons of er <b>Sub-</b> ing or lue to ding a klessly tain a two or rpose,

In this context, any action taken by a bidder, supplier, contractor, or a sub-contractor to influence the procurement process or contract execution for undue advantage is improper.

<sup>&</sup>lt;sup>2</sup> "Another party" refers to a public official acting in relation to the procurement process or contract execution]. In this context, "public official" includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

a "party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.

<sup>&</sup>quot;parties" refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non-competitive levels.

a "party" refers to a participant in the procurement process or contract execution.

		party;		
		(iv) "coercive practice" is impairing or harming, or		
		threatening to impair or harm, directly on the property of the party		
		improperly the actions of a party;	y to initiactice	
		(v) "obstructive practice" is		
		(aa) deliberately destroying, falsifying concealing of evidence materially investigation or making false investigators in order to materially investigation into allegations fraudulent, coercive or collusive threatening, harassing or intimided to prevent it from disclosing its matters relevant to the investigation; or (bb) acts intended to materially impedent the Bank's inspection and audited for under Clause 11 [Inspections the Bank].  Incould any employee of the Supplier be determined to corrupt, fraudulent, collusive, coercive, or obsti	rerial to the statements to rimpede a Bank of a corrupt, practice; and/or ating any party sknowledge of gation or from the exercise of rights provided and Audits by the o have engaged ructive practice	
		uring the purchase of the Goods, then that empenoved.	ployee shall be	
	4.1	If the context so requires it, singular means plural and	vice versa.	
	4.2	Incoterms		
4. Interpretation		<ul> <li>(a) Unless inconsistent with any provision of the meaning of any trade term and the rights and parties there under shall be as prescribed by I</li> <li>(b) The terms EXW and other similar terms, when governed by the rules prescribed in the cullincoterms specified in the SCC and pull International Chamber of Commerce in Paris,</li> </ul>	d obligations of ncoterms. n used, shall be rrent edition of blished by the	
	4.2	ntire Agreement		
	;	ne Contract constitutes the entire agreement betweend the Supplier and supersedes all communications, regreements (whether written or oral) of the particular made prior to the date of Contract.	negotiations and	
	4.3	mendment		
		o amendment or other variation of the Contract shal	l be valid unless	

		it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.
	4.4	No waiver
	(a)	Subject to GCC Sub-Clause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
	(b)	Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.
	4.5	Severability
		If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.
5. Language	5.1	The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be English. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in English language, in which case, for purposes of interpretation of the Contract, this translation shall govern.
	5.2	The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Supplier.
6. Deleted		
	7.1	The Supplier and its Subcontractors shall have the nationality of an eligible country. A Supplier or Subcontractor shall be deemed to have the nationality of a country if it is a citizen or constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country.
7. Eligibility	7.2	All Goods and Related Services to be supplied under the Contract and financed by the Bank shall have their origin in Eligible Countries. For the purpose of this Clause, origin means the country where the goods have been grown, mined, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its

		basic characteristics from its components.
8. Notices	8.1	Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the <b>SCC.</b> The term "in writing" means communicated in written form with proof of receipt.  A notice shall be effective when delivered or on the notice's effective
	0.2	date, whichever is later.
9. Governing Law	9.1	The Contract shall be governed by and interpreted in accordance with the laws of the Union of India.
	10.1	The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
10. Settlement of Disputes	10.2	If, after twenty-eight (28) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract. Arbitration proceedings shall be conducted in accordance with the rules of procedure <b>specified in the SCC.</b>
	10.3	<ul> <li>Notwithstanding any reference to arbitration herein,</li> <li>(a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and</li> <li>(b) the Purchaser shall pay the Supplier any monies due the Supplier.</li> </ul>
11. Inspections and Audit by the Bank	11.1	The Supplier shall permit the Bank and/or persons appointed by the Bank to inspect the Supplier's offices and/or the accounts and records of the Supplier and its sub-contractors relating to the performance of the Contract, and to have such accounts and records audited by auditors appointed by the Bank if required by the Bank. The Supplier's attention is drawn to Clause 3, which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under Sub-Clause 11.1 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility under the Procurement Guidelines).
12. Scope of Supply	12.1	The Goods and Related Services to be supplied shall be as specified in the Special Condition of Contract.
13. Delivery and Documents	13.1	Subject to GCC Sub-Clause 33.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Schedule of Requirements. The details of shipping and other documents to be

		furnished by the Supplier are specified in the <b>SCC.</b>
14. Supplier's Responsibilities	14.1	The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 12, and the Delivery and Completion Schedule, as per GCC Clause 13.
15. Contract Price	15.1	Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in the <b>SCC</b> .
	16.1	The Contract Price, including any Advance Payments, if applicable, shall be paid as specified in the <b>SCC</b> .
	16.2	The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered and Related Services performed, and by the documents submitted pursuant to GCC Clause 13 and upon fulfillment of all other obligations stipulated in the Contract.
16. Terms of Payment	16.3	Payments shall be made promptly by the Purchaser, but in no case later than sixty (60) days after submission of an invoice or request for payment by the Supplier, and after the Purchaser has accepted it.
	16.4	The payments shall be made in Indian Rupees to the Supplier under this Contract.
	16.5	In the event that the Purchaser fails to pay the Supplier any payment by its due date or within the period set forth in the SCC, the Purchaser shall pay to the Supplier interest on the amount of such delayed payment at the rate shown in the SCC, for the period of delay until payment has been made in full, whether before or after judgment or arbitrage award.
17. Taxes and Duties		supplier shall be entirely responsible for all taxes, duties, license fees, nourred until delivery of the contracted Goods to the Purchaser.
	18.1	If required as specified in the SCC, the Supplier shall, within twenty-eight (28) days of the notification of contract award, provide a performance security for the performance of the Contract in the amount specified in the <b>SCC.</b>
18. Performance Security	18.2	The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
	18.3	As specified in the SCC, the Performance Security shall be denominated in the Indian Rupees, and shall be in one of the format stipulated by the Purchaser in the <b>SCC</b> , or in another format acceptable to the Purchaser.
	18.4	The Performance Security shall be discharged by the Purchaser and

		returned to the Supplier not later than twenty-eight (28) days following the date of Completion of the Supplier's performance obligations under the Contract, including any Comprehensive Maintenance obligations, unless specified otherwise in the SCC.
19. Copyright	19.1 The copyright in all drawings, documents, and other materic containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by a third party, including suppliers of materials, the copyright in sumaterials shall remain vested in such third party	
	20.1	The Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under GCC Clause 20.
20. Confidential	20.2	The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Purchaser for any purpose other than the performance of the Contract.
Information	20.3	The obligation of a party under GCC Sub-Clauses 20.1 and 20.2 above, however, shall not apply to information that:
	(a)	the Purchaser or Supplier need to share with the Bank or other institutions participating in the financing of the Contract;
	(b)	now or hereafter enters the public domain through no fault of that party;
	(c)	can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or
	(d)	Otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.
	20.4	The above provisions of GCC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part

	thereof.	
	20.5 The provisions of GCC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.	
21. Subcontracting	21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the bid. Such notification, in the original bid or later shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.	
	21.2 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.	
	22.1 Technical Specifications and Drawings	
22. Specifications and Standards	<ul> <li>(a) The Goods and Related Services supplied under this Contract shall conform to the technical specifications and standards mentioned in Section VI, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the Goods' country of origin.</li> <li>(b) The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser.</li> <li>(c) Wherever references are made in the Contract to codes and</li> </ul>	
	standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with GCC Clause 33.	
23. Packing and Documents	23.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.	
	23.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the <b>SCC</b> , and in any other instructions ordered by the Purchaser.	

24. Insurance	24.1	Contract shall be fully insured—against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the <b>SCC</b> .	
25. Transportation	25.1	Unless otherwise specified in the <b>SCC</b> , responsibility for arranging transportation of the Goods shall be in accordance with the specified Incoterms.	
	26.1	The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in the <b>SCC</b> .	
	26.2	The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, and/or at the Goods' final destination, or in another place in the Purchaser's Country as specified in the SCC. Subject to GCC Sub-Clause 26.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.	
	26.3	The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in GCC Sub-Clause 26.2, provided that the Purchaser bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all travelling and board and lodging expenses.	
26. Inspections and Tests	26.4	Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.	
	26.5	The Purchaser may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications codes and standards under the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impede the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected.	
	26.6	The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.	
	26.7	The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the	

	26.8	specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to GCC Sub-Clause 26.4.  The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to GCC Sub-Clause 26.6, shall release the Supplier from any warranties or other obligations under the Contract.		
27. Liquidated Damages	27.1	Except as provided under GCC Clause 32, if the Supplier fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in those SCC. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to GCC Clause 35.		
	28.1	The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.		
	28.2	Subject to GCC Sub-Clause 22.1(b), the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.		
28. Comprehensive	28.3	Unless otherwise specified in the <b>SCC,</b> the Comprehensive maintenance shall be valid from the date of final acceptance certificate.		
Maintenance	28.4	The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects within 24 hours.		
	28.5	Upon receipt of such notice, the Supplier shall, within the period specified in the <b>SCC</b> , expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.		
	28.6	If having been notified, the Supplier fails to remedy the defect within the period specified in the <b>SCC</b> , the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the		

	Contract.	
	29.1 The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 29.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:	
	(a) The installation of the Goods by the Supplier or the use of the Goods in the country where the Site is located; and	
	(b) The sale in any country of the products produced by the Goods.	
	Such indemnity shall not cover any use of the Goods or any part there other than for the purpose indicated by or to be reasonably inferred from t Contract, neither any infringement resulting from the use of the Goods any part thereof, or any products produced thereby in association combination with any other equipment, plant, or materials not supplied the Supplier, pursuant to the Contract.	
29. Patent Indemnity	29.2 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Sub-Clause 29.1, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.	
	29.3 If the Supplier fails to notify the Purchaser within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf.	
	29.4 The Purchaser shall, at the Supplier's request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.	
	29.5 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed	

		by or on behalf of the Purchaser.	
	30.1	Except in cases of criminal negligence or willful misconduct,	
30. Limitation of Liability		<ul> <li>(a) the Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser and</li> <li>(b) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the purchaser with respect to patent infringement</li> </ul>	
31. Change in Laws and Regulations	31.1	31.1 Unless otherwise specified in the Contract, if after the date of 28 days prior to date of Bid submission, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in India, where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GCC Clause 15.	
	32.1	The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.	
32. Force Majeure	32.2	For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.	
	32.3	If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means	

	for performance not prevented by the Force Majeure event.
	33.1 The Purchaser may at any time order the Supplier through notice in accordance GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:
	<ul> <li>(a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;</li> </ul>
	(b) the method of shipment or packing;
	(c) the place of delivery; and
	(d) The Related Services to be provided by the Supplier.
33. Change Orders and Contract Amendments	33.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Supplier's receipt of the Purchaser's change order.
	33.3 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.
	33.4 Subject to the above, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.
34. Extensions of Time	34.1 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 13, the Supplier shall promptly notify the Purchaser in writing of the delay, it's likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.
	34.2 Except in case of Force Majeure, as provided under GCC Clause 32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 26, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 34.1.

#### 35.1 Termination for Default

- (a) The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:
  - (i) if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 34:
  - (ii) if the Supplier fails to perform any other obligation under the Contract; or
  - (iii) if the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, as defined in GCC Clause 3, in competing for or in executing the Contract.
- (b) In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 35.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

#### 35. Termination

#### 35.2 Termination for Insolvency.

- (a) The Purchaser may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser
- 35.3 Termination for Convenience.
- (a) The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
- (b) The Goods that are complete and ready for shipment within twentyeight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

	(i) to have any portion completed and delivered at the Contract terms and prices; and/or
	(ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.
36. Assignment	36.1 Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

## **Section VIII. Special Conditions of Contract**

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

	The Purchaser is: <b>Director</b> ,		
GCC 1(j)	CHANDIGARH TRANSPORT UNDETRTAKING		
	O/o Director Transport UT, Chandigarh,		
	Plot No. 701, Industrial Area Phase-1, Chandigarh		
GCC 1(o)	The Project Sites are Depot 2		
GCC 4.2 (a)	The meaning of the trade terms shall be as prescribed by Incoterms		
GCC 4.2 (b)	The version edition of Incoterms shall be 2015		
GCC 8.1	For <b>Notices</b> , the Purchaser's address shall be:		
	Attention: <b>Director</b> ,		
	Address:		
	CHANDIGARH TRANSPORT UNDETRTAKING		
	O/o Director Transport UT, Chandigarh,		
	Plot No. 701, Industrial Area Phase-1, Chandigarh		
	PHONE : 0172-2679002		
	E-MAIL : <u>directorctuchd@gmail.com</u>		
	Website: http://etenders.chd.nic.in		
GCC 10.2	Settlement of Disputes		
	The dispute settlement mechanism to be applied shall be as follows:		
	(a) In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. The arbitral tribunal shall consist of 3 arbitrators one each to be appointed by the Purchaser and the Supplier. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the Parties and shall act as Presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the President of the institution of Engineers (India).		
	(b) In the case of a dispute with a Foreign Supplier, the dispute shall be settled in accordance with provisions of UNCITRAL (United nations Commission on International Trade Law) Arbitration Rules. The Arbitral Tribunal shall consist of three Arbitrators one each to be appointed by the Purchaser and		

	the Supplier. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the parties, and shall act as presiding arbitrator. In case of
	failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the President of the Institution of Engineers (India).
	(c) If one of the parties fails to appoint its arbitrator in pursuance of sub-clause (a) and (b) above, within 30 days after receipt of the notice of the appointment of its arbitrator by the other party, then the President of the Institution of Engineers (India) both in cases of the Foreign supplier as well as Indian supplier, shall appoint the arbitrator. A certified copy of the order of the President of the Institution of Engineers (India), making such an appointment shall be furnished to each of the parties.
	(d) Arbitration proceedings shall be held at Chandigarh, India, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.
	(e) The decision of the majority of arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation etc. of its proceedings as also the fees and expenses paid to the arbitrator appointed by such party or on its behalf shall be borne by each party itself.
	(f) Where the value of the contract is Rs.10 million and below, the disputes or differences arising shall be referred to the Sole Arbitrator. The Sole Arbitrator should be appointed by agreement between the parties; failing such agreement, by the appointing authority namely the President of the Institution of Engineers (India).
	(g) Except otherwise agreed to by the Parties, Arbitrators should give a decision in writing within 120 days of receipt of notification of dispute.
GCC 12.1	The scope of supply for the Goods and Related Services to be supplied shall be as specified in the <i>Schedule of Requirement</i> .
GCC 13.1	Details of Shipping and other Documents to be furnished by the Supplier are given below:
	GCC 13.1 Upon delivery of the goods to the transporter/consignee, the supplier shall notify the purchaser and mail the following documents to the Purchaser:

	(i)	Three Copies of the Supplier invoice showing contract number, goods description, quantity, unit price, total amount;
	(ii)	Delivery note, Railway receipt, or Road consignment note or equivalent transport document or acknowledgement of receipt of goods from the Consignee;
	(iii)	Three Copies of packing list identifying contents of each package;
	(iv)	Insurance certificate;
	(v)	Manufacturer's/Supplier's certificate;
	(vi)	Inspection certificate issued by the nominated inspection agency, and the Supplier's factory inspection report; and
	(vii)	Certificate or origin.
	Goods (except wh	ents shall be received by the Purchaser before arrival of the nere it is handed over to the Consignee with all documents) yed, the supplier will be responsible for any consequent
GCC 15.1	The prices charged shall not be adjust	d for the Goods supplied and the related Services performed able.
GCC 16	Tenderers are required to quote their rates including installation/ freight charges along with Comprehensive Maintenance Charges(CMC)for a period of 8 years.	
	Payment Schedule	2
	-After satisfactory	installation of equipment- 60%
	-In first month of e	unctioning of equipment - 10% each year - 2% ( Ist year), 4% (for rest 7 years) year of commencement)

GCC 17	In the case of Excise duty waiver, the purchaser will issue only the certificates in terms of the Central Excise notification as per information given by supplier in form at serial no.8 of Section VI. Supplier is solely responsible for obtaining such benefits and in case of failure to receive such benefits; the purchaser will not compensate the supplier separately.
GCC 18.1	Within 21 days of Notification of Award, the supplier shall furnish Performance Security to the Purchaser shall be for an amount of 10% of the contract value of each Equipment, valid up to date of completion of performance obligations including CMC obligations.  In the event of any correction of defects or replacement of defective material during the CMC period, the warranty for the corrected/ replaced material shall be extended to a further period of 12 months and the Performance Bank guarantee for proportionate value shall be extended 60 days over and above the extended CMC period.
GCC 18.3	If required, the Performance Security shall be in the form of an unconditional "Bank Guarantee" drawn in favour of the Purchaser.
GCC 18.4	Discharge of the performance Security shall take place not later than 60 days following the date of completion of the Supplier's performance obligations, including the CMC obligation, under the contract.
GCC 18.5	Add as Clause 18.5 to the GCC the following:  In the event of any contractual amendment, the Supplier shall, within 28 days of receipt of such amendment, furnish the amendment to the Performance Security, rendering the same valid for the duration of the Contract, as amended for 60 days after the completion of performance obligations including CMC obligations.
GCC 23.2	Packing Instructions: The Supplier will be required to make separate packages for each Consignee. Each package will be marked on three sides with proper paint/indelible ink with the following:  (i) Project; (ii) Contract No.; (iii) Country of Origin of Goods; (iv) Supplier's Name; (v) Packing List Reference Number.
	Suppliers should use recycled materials as much as possible for packing

of the Goods from "Warehouse to warehouse (final destination)" on "All Risks' basis including War Risks and Strikes.  The Supplier is required under the Contract to transport the Goods duly insured to the specified final destination, and all related costs shall be included in the Contract Price.  GCC 26.1  The inspections and tests shall be as detailed in Para 5 of Section VI-Schedule of Requirement:  The supplier shall get each item indicated in the Schedule of requirement inspected in manufacturer's works and submit a test certificate and also manufacturer's guarantee /warranty certificate that the items are conforms to the laid down specification.  The Purchaser or its committee may inspect and /or test any or all the items to confirm their conformity to the contract specification, prior to dispatch at the manufacturer's premises. Such inspection and clearance will not prejudice the right of the consignee to inspect and test the items on receipt at destination to verify conformity to technical specification.  If the items are fails to meet the laid down specifications the supplier shall take immediate steps to remedy the deficiency or replace the defective parts of the each to the satisfaction of the purchaser/ consignee.  GCC 26.2  The Inspections and tests shall be conducted at:  Depot-2 near Director Transport Office Plot No. 701, Industrial Area Phase I Chandigarh.  Any representative of the CTU can make inspection at vendor's site if required.  GCC 27.1  The liquidated damage shall be: 0.5% of contract price of delayed Goods o Services per week or part thereof. The maximum amount of liquidated damage shall be: 10% of the contract price excluding cost of CMC.  GCC 28.3  The Comprehensive Maintenance period shall be as mentioned in the Technica Specifications from the date of final acceptance.  The period for repair or replacement shall be: 2 days.  GCC 28.5  GCC 28.6  The period shall be 14 days.  28.7.1 Free maintenance services complete including spare parts or reasons whatsoever shall be provided by t		
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Requirement:  The supplier shall get each item indicated in the Schedule of requirement inspected in manufacturer's works and submit a test certificate and also manufacturer's guarantee /warranty certificate that the items are conforms to the laid down specification.  The Purchaser or its committee may inspect and /or test any or all the items to confirm their conformity to the contract specification, prior to dispatch at the manufacturer's premises. Such inspection and clearance will not prejudice the right of the consignee to inspect and test the items on receipt at destination to verify conformity to technical specification.  If the items are fails to meet the laid down specifications the supplier shall take immediate steps to remedy the deficiency or replace the defective parts of the each to the satisfaction of the purchaser/ consignee.  GCC 26.2  The Inspections and tests shall be conducted at:  Depot-2 near Director Transport Office Plot No. 701, Industrial Area Phase I Chandigarh.  Any representative of the CTU can make inspection at vendor's site if required.  GCC 27.1  The liquidated damage shall be: 0.5% of contract price of delayed Goods o Services per week or part thereof. The maximum amount of liquidated damage shall be: 10% of the contract price excluding cost of CMC.  GCC 28.3  The Comprehensive Maintenance period shall be as mentioned in the Technical Specifications from the date of final acceptance.  The period for repair or replacement shall be: 2 days.  GCC 28.5  GCC 28.6  The period shall be 14 days.  GCC 28.7.1 Free maintenance services complete including spare parts or reasons whatsoever shall be provided by the supplier during the period of CMC period.  28.7.2 The maximum response time for a maintenance complaint from any of the contract price and tests are provided by the supplier during the period of CMC period.	GCC 25.1	The Supplier is required under the Contract to transport the Goods duly insured to the specified final destination, and all related costs shall be included in the Contract Price.
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	GCC 28.7	28.7.1 Free maintenance services complete including spare parts or reasons whatsoever shall be provided by the supplier during the period of CMC period.
		28.7.2 The maximum response time for a maintenance complaint from any of the destination specified in the schedule of requirements (i.e. time required for

	supplier's maintenance engineers to report to the installations after a request call/telegram/fax is made or letter is written) shall not exceed 48 hours.
	28.7.3 It is expected that the average downtime of an item will be less than half the maximum downtime (i.e. defined as number of days for which an item of equipment is not usable because of inability of the supplier to repair it) as mentioned in the form of technical details. In case an item is not usable beyond the stipulated maximum downtime the supplier will be required to arrange for an immediate replacement of the same till it is repaired. Failure to arrange for the immediate repair/replacement will be liable for penalty of Rs 1000 per day per item. The amount of penalty will be recovered from CMC amount payble.
GCC 31.1	This clause will apply only to variations in Excise duty/VAT/Sales tax/ Octroi etc. payable in India on the final product which is being supplied and not for the individual components / raw materials which go into the product.
GCC 37.1	Supplier integrity:  The supplier is responsible for and obliged to conduct all contracted activities in accordance with the contract using state- of- the- art methods and economic principles and exercising all means available to achieve the performance specified in the Contract
GCC 37.2	Supplier's obligations:  The Supplier is obliged to work closely with the Purchaser's staff, act within its own authority and abide by directives issued by the Purchaser and implementation activities.  The Supplier will abide by the job safety measures prevalent in India and will free the Purchaser from all demands or responsibilities arising from accidents or loss of life the cause of which is the supplier's negligence. The Supplier will pay all indemnities arising from such incidents and will not hold the purchaser responsible or obligated.
	The Supplier will treat as confidential all data and information about the purchaser, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of the Purchaser.
GCC 37.3	Site preparation and installation  The Purchaser is solely responsible for the construction of the hardware sites in compliance with the technical and environmental specifications defined by the supplier. The Purchaser will designate the installations sites before the

	scheduled installation date to allow the supplier to perform a site inspection to
	verify the appropriateness of the sites before the installation of the hardware.
GCC 37.4	Hardware installation:
	The Supplier is responsible for all unpacking, assemblies, wiring, installations, cabling between hardware units and connecting to power supplies. The Supplier will test all hardware operations and accomplish all adjustments necessary for successful and continuous operation of the hardware at all installation sites.
GCC 37.5	Hardware maintenance:
	The Supplier will accomplish preventive and breakdown maintenance activities to ensure that all hardware put are without defect or interruption for at least 95% uptime for 24 hours a day, 7 days a week of operation of the machine worked on a quarterly basis.
	If any critical component of the entire configuration is out of service for more than three days, the Supplier shall either immediately replace the defective unit or repair it at its own cost.
	The Supplier will respond to a site visit and commence repair work on the equipment within 48 hours of being notified of equipment malfunction.

### Section IX – Contract Forms

# **Table of Forms**

- 1. CONTRACT AGREEMENT
- 2. PERFORMANCE SECURITY

#### 1. CONTRACT AGREEMENT

[The successful Bidder shall fill in this form in accordance with the instructions indicated]

#### THIS CONTRACT AGREEMENT is made

the [insert: number] day of [insert: month], [insert: year].

#### **BETWEEN**

- (1) Chandigarh Transport Undertaking (CTU), INDIA., incorporated under the Act of India and having its principal place of business at Chandigarh Transport Undertaking, O/o Director Transport UT, Chandigarh, Plot No. 701, Industrial Area Phase-1, Chandigarh, India (hereinafter called "the Purchaser"), and
- (2) [Insert name of Supplier], a corporation incorporated under the laws of [insert: country of Supplier] and having its principal place of business at [insert: address of Supplier] (hereinafter called "the Supplier").

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., [insert brief description of Goods and Services] and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of [insert Contract Price in words and figures, expressed in the Contract currency (ies)] (hereinafter called "the Contract Price").

#### NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
- 2. The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract:
- (a) This Contract Agreement
- (b) Special Conditions of Contract
- (c) General Conditions of Contract
- (d) Technical Requirements (including Schedule of Requirements and Technical Specifications)
- (e) The Supplier's Bid and original Price Schedules
- (f) The Purchaser's Notification of Award
- (g) [Add here any other document(s)]

3. This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.

listed above.

4. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the Goods and

Services and to remedy defects therein in conformity in all respects with the provisions of the

Contract.

5. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the

Goods and Services and the remedying of defects therein, 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 by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance

with the laws of [India] on the day, month and year indicated above.

For and on behalf of the Purchaser

Signed: [insert signature]

in the capacity of [insert title or other appropriate designation]

in the presence of [insert identification of official witness]

For and on behalf of the Supplier

Signed: [insert signature of authorized representative(s) of the Supplier]

in the capacity of [insert title or other appropriate designation]

in the presence of [insert identification of official witness]

Note: This form is for information of the bidder. It is not to be completed and submitted / uploaded

as a part of the bid.

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#### 2. Performance Security

[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]

Date: [insert date (as day, month, and year) of Bid Submission]

IFB No. and title: [insert no. and title of bidding process]

Bank's Branch or Office: [insert complete name of Guarantor]

Beneficiary: Chandigarh Transport Undertaking

O/o Director Transport UT, Chandigarh Plot No. 701, Industrial Area Phase-

1, Chandigarh, India

**PERFORMANCE GUARANTEE No.:** [insert Performance Guarantee number]

We have been informed that [insert complete name of Supplier] (hereinafter called "the Supplier") has entered into Contract No. [insert number] dated [insert day and month], [insert year] with you, for the supply of [description of Goods and related Services] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a Performance Guarantee is required.

At the request of the Supplier, we hereby irrevocably undertake to pay you any sum(s) not exceeding [insert amount( $s^7$ ) in figures and words] upon receipt by us of your first demand in writing declaring the Supplier to be in default under the Contract, without cavil or argument, or your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This Guarantee shall expire no later than the [insert number] day of [insert month][insert year], and any demand for payment under it must be received by us at this office on or before that date.

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The Bank shall insert the amount(s) specified in the SCC and denominated, as specified in the SCC, either in the currency (ies) of the Contract or a freely convertible currency acceptable to the Purchaser.

Dates established in accordance with Clause 17.4 of the General Conditions of Contract ("GCC"), taking into account any warranty/CMC obligations of the Supplier under Clause 15.2 of the GCC intended to be secured by a partial Performance Guarantee. The Purchaser should note that in the event of an extension of the time to perform the Contract, the Purchaser would need to request an extension of this Guarantee from the Bank. Such request must be in writing and must be made prior to the expiration date established in the Guarantee. In preparing this Guarantee, the Purchaser might consider adding the following text to the Form, at the end of the penultimate paragraph: "We agree to a one-time extension of this Guarantee for a period not to exceed [six months] [one year], in response to the Purchaser's written request for such extension, such request to be presented to us before the expiry of the Guarantee."

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458, except that subparagraph (ii) of Sub-article 20(a) is hereby excluded.
[signatures of authorized representatives of the bank and the Supplier]
Note: This form is for information of the bidder. It is not to be completed and submitted / uploaded as a part of the bid.

#### Section - X

#### **Bank Policy – Corrupt and Fraudulent Practices**

Guidelines for Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, dated January 2011:

#### "Fraud and Corruption

1.23 It is the Bank's policy to require that Borrowers (including beneficiaries of Bank loans), consultants, and their agents (whether declared or not), sub-contractors, sub-consultants, service providers, or suppliers, and any personnel thereof, observe the highest standard of ethics during the selection and execution of Bank-financed contracts [footnote: In this context, any action taken by a consultant or any of its personnel, or its agents, or its subconsultants, sub-contractors, services providers, suppliers, and/or their employees, to influence the selection process or contract execution for undue advantage is improper.]. In pursuance of this policy, the Bank:

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
  - "corrupt practice" is the offering, giving, receiving, or soliciting, directly or (i) indirectly, of anything of value to influence improperly the actions of another party<sup>9</sup>;
  - "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation<sup>10</sup>;
  - (iii) "collusive practices" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party<sup>11</sup>;
  - (iv) "coercive practices" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party<sup>12</sup>;

<sup>&</sup>lt;sup>9</sup> For the purpose of this sub-paragraph, "another party" refers to a public official acting in relation to the selection process or contract execution. In this context "public official" includes World Bank staff and employees of other organizations taking or reviewing selection decisions.

<sup>&</sup>lt;sup>10</sup> For the purpose of this sub-paragraph, "party" refers to a public official; the terms "benefit" and "obligation" relate to the selection process or contract execution; and the "act or omission" is intended to influence the selection process or contract execution.

<sup>&</sup>lt;sup>11</sup> For the purpose of this sub-paragraph, "parties" refers to participants in the procurement or selection process (including public officials) attempting either themselves, or through another person or entity not participating in the procurement or selection process, to simulate competition or to establish prices at artificial, non-competitive levels, or are privy to each other's bid prices or other conditions.

- (v) "obstructive practice" is
  - (aa) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/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
  - (bb) acts intended to materially impede the exercise of the Bank's inspection and audit rights;
- (b) will reject a proposal for award if it determines that the consultant recommended for award or any of its personnel, or its agents, or its sub-consultants, sub-contractors, services providers, suppliers, and/or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- (c) will declare misprocurement and cancel the portion of the Loan allocated to a contract if it determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the Loan were engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the selection process or the implementation of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner they knew of the practices;
- (d) will sanction a firm or an individual at any time, in accordance with prevailing Bank's sanctions procedures<sup>13</sup>, including by publicly declaring such firm or an ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract, and (ii) to be a nominated<sup>14</sup> sub-consultant, supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract.

For the purpose of this sub-paragraph, "party" refers to a participant in the selection process or contract execution.

<sup>&</sup>lt;sup>13</sup> A firm or an individual may be declared ineligible to be awarded a Bank-financed contract upon (i) completion of the Bank's sanctions proceedings as per its sanctions procedures, including inter alia: cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks, and through the application of the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption; and (ii) as a result of temporary suspension or early temporary suspension in connection with an ongoing sanctions proceedings. See footnote 12 and paragraph 8 of Appendix 1 of these Guidelines.

<sup>&</sup>lt;sup>14</sup> A nominated sub-consultant, supplier, or service provider is one which has been either (i) included by the consultant in its proposal because it brings specific and critical experience and know-how that are accounted for in the technical evaluation of the consultant's proposal for the particular services; or (ii) appointed by the Borrower.