	ARE04A Contract (Addendum 03)						
S. No.	Part	Section	Clause No.	Original Bid Condition	Revised Bid Condition		
1	Part 1	Section II- BDS	ITB 3.1 (c)	For GoTN funded Tender, following wordings on banning clause which is adopted in other CMRL tenders may be considered. The Employer will recognize a Contractor as ineligible, who have abandoned any contract executed for any Metro / Govt. agency during the last 03 years,	For GoTN funded Tender, following wordings on banning clause which is adopted in other CMRL tenders may be considered. The Employer will recognize a Contractor as ineligible, who have abandoned any contract executed for any Metro / Govt. agency during the last 03 years, and/or bidders who have been terminated and/or banned by		
				and/or bidders who have been terminated and/or banned by any Metro Rail Corporation in India or by Tamil Nadu State Govt. and currently if the ban is effective on the date of submission of bid. b) Electronic copy of cost of bid and eBG / EMD, in accordance with BDS	any Metro Rail Corporation in India or by Tamil Nadu State Govt. and currently if the ban is effective on the date of submission of bid. b) Electronic copy Proof of payment of cost of bid and eBG Bid Security / EMD, in accordance with BDS		
2	Part 1	Section II- BDS	ITB 11.2.1	21;	24-21.1 and 21.2; In case Prequalification was conducted prior to the bidding process, the Bidder's Bid shall name the same		
3	Part 1	Section II- BDS	ITB 17.6 (New)		specialist subcontractor(s) whose experience in the key activities was evaluated in the Prequalification, unless such change is explicitly unless such change is explicitly approved by the Employer in accordance with ITB 15.2.		
				The Bidder shall submit with his Bid, a Bid Security for the sum as specified in BDS 21.1 above in the form of eBG or via RTGS / NEFT transactions or via demand draft. Such bid security shall be valid for a period of 28 days beyond the bid validity period stipulated in the bid.	The Bidder shall submit with his Bid, a Bid Security for the sum as specified in BDS 21.1 above in the form of eBG or via RTGS / NEFT /SWIFT transactions or via demand draft. Such bid security shall be valid for a period of 28 days beyond the bid validity period stipulated in the bid.		
				The EMD shall be submitted in Electronic Bank Guarantee (eBG). It shall be as per format given in bid documents, from a Scheduled Commercial Bank as defined in Section 2(e) of RBI Act 1934.	The EMD-shall be submitted in Electronic Bank Guarantee (eBG) In case, the EMD is submitted in the form of e-Bank guarantee, it shall be as per format given in bid documents, from a Scheduled Commercial Bank as defined in Section 2(e) of RBI Act 1934. The eBG is to be uploaded online in CPP along with the bid.		
				The eBG is to be uploaded online in CPP along with the bid. If EMD is via eBG / RTGS / NEFT / SWIFT transactions, Bidders shall	If EMD is via eBG / RTGS / NEFT / SWIFT transactions, Bidders shall upload the scanned copies of transaction of payment at the time of online bid submission and a copy of the same shall be submitted at		
				upload the scanned copies of transaction of payment at the time of online bid submission and a copy of the same shall be submitted at the office of the Employer at the address specified in the Bid document within 7 Days after Bid submission due date.	the office of the Employer at the address specified in the Bid document within 7 Days after Bid submission-		
4	Part 1	Section II- BDS	ITB 21.2	If EMD is via demand draft, a scanned copy of this DD is to be uploaded online along with Bid Submission and the Bidder should ensure physical submission of the original DD at the office of the Employer at the address specified in the Bid document within 7 Days after Bid submission due date.	and the Bidder should ensure physical submission of the original DD at the office of the Employer at the address specified in the Bid document within 7 Days after Bid submission due date. If the Bidder either fails to upload the scanned copy of the eBG / Demand Draft /Transaction receipt of		
				If the Bidder either fails to upload the scanned copy of the eBG / Demand Draft /Transaction receipt of NEFT / RTGS / SWIFT along with his Bid or fails to submit the eBG or Demand Draft at the aforesaid location, his Bid	NEFT / RTGS / SWIFT along with his Bid or fails to submit the-eBG-er Demand Draft at the aforesaid location, his Bid shall not be considered for evaluation and shall be summarily rejected. In case the submission date of bid is extended, the bid security shall also be extended to twentyeight (28) days beyond the extended bid validity period.		
				shall not be considered for evaluation and shall be summarily rejected. In case the submission date of bid is extended, the bid security shall also be extended to twenty eight (28) days beyond the extended bid validity period.			
				Replace Sub-clause 22.1 with the following: The Bid submission is through E-tender portal of CPP only.	Replace Sub-clause 22.1 with the following:		
5	Part 1	Section II- BDS	ITB 22.1	In addition to the original of the Bid, the number of copies to be submitted is: None Ministry of Finance, Department of Expenditure, Public Procurement	The Bid submission is through E-tender portal of CPP only. In addition to the original of the Bid, the number of copies to be submitted is: None However, Original DD shall be submitted by the Bidders according to clause 21.2 above. Ministry of Finance, Department of Expenditure, Public Procurement Division, Government of India has		
				Division, Government of India has issued an Order (Public Procurement No.1) on 23 July 2020 on Restrictions Under Rule 144 (xi) of the General Financial Rules (GFRs), 2017. Based on which any bidder from a country which shares a land border with India will be eligible to bid in any	issued an Order on 23-July-2020 23 February 2023 on Restrictions Under Rule 144 (xi) of the General Financial Rules (GFRs), 2017. Based on which any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the		
6	Part 1	Section II- BDS	ITB 45	procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority.	Competent Authority. For details refer to Part 1, Section V-A-V-B, 'Requirements of a Bidder from a Country which Shares Land Border with India'.		
				For details refer to Part 1, Section V-A, 'Requirements of a Bidder from a Country which Shares Land Border with India'. Ministry of Finance, DoE Office Memo No.F 18 / 37 / 2020 – PPD dated 08th February 2021 regarding the import of raw materials and subcontracting with the firms from the countries sharing land boundaries with India.	Ministry of Finance, DoE Office Memo-No.F 18 / 37 / 2020 — PPD dated 08th February 2021 Further, refer Office Memorandum published by DoE, Ministry of Finance, GOI No. P -45021/112/2020-PP (BE-II) (E-43780) dated 28th April 2023 regarding the import of raw materials and sub-contracting with the firms from the countries sharing land boundaries with India.		
7	Part 1	Section III - EQC	No. 2.1.2 hodicibility	i) Not having been declared ineligible by JICA as described in ITB 3.1. ii) Not having been declared ineligible by Employer, as described in ITB 4.	i) Not having been declared ineligible by JICA as described in ITB 3.1. Deleted. ii) Not having been declared ineligible by Employer, as described in ITB 4. Not considered ineligible by any		
,	Part 1	Section III - EQC	No. 2.1.3 Ineligibility	Not considered ineligible by any Metro Rail Corporation in India or Govt of India or Tamil Nadu State Govt. as described in ITB3.	Metro Rail Corporation in India or Govt of India or Tamil Nadu State Govt. as described in ITB-3 ITB BDS 3.1 (c).		
8	Part 1	Section IV Bidding Forms	Sub-Clause 4.1.8 of Clause 4 'Price Schedules'	Amounts declared by the bidder for Price Centers RS-A, RS-CST, RS-FAI, RS-CPT, RS-C, RS-E, RS-F, RSH and RS-CMC are capped by the Allowable Apportionment shown in Table 4.2 Pricing Summary, which is expressed as a percentage of the lumpsum price. Bidders shall ensure that the prices filled throughout submitted Pricing Tables do not exceed the Allowable Apportionment limits. The Bidder may offer discount for each Price Centres (except RS-CMC) and this amount will be calculated for the Lumpusm Price (after Discount). The individual Price centre (after Discount) will be taken as the basis for determining the allowable Apportionment limits for the respective Price centres (RS-A, RS-CST, RS-FAI, RS-CPT, RS-C, RS-E, RS-F, RS-H), which are then applied to each Milestone	Amounts declared by the bidder for Price Centers RS-A, RS-CST, RS-FAI, RS-CPT, RS-C, RS-E, RS-F, RSH and RS-CMC are capped by the Allowable Apportionment shown in Table 4.2 Pricing Summary, which is expressed as a percentage of the lumpsum price. Bidders shall ensure that the prices filled throughout submitted Pricing Tables do not exceed the Allowable Apportionment limits. The Bidder may offer discount for each Price Centres (except RS-CMC) and this amount will be calculated for the Lumpusm Price (after Discount). The total amount (after discount) for each individual Price centre will be taken as the basis for determining the allowable Apportionment limits for each Milestone under their respective Price centres (RS-A, RS-CST, RS-FAI, RS-CPT, RS-C, RS-E, RS-F, RS-H).		
9	Part 1	Section IV Bidding Forms	4.4 Schedule of Payment	Section 4.4.1 to 4.4.12	Section 4.4.1 to 4.4.12 are replaced by:- Annexure (01) to ARE04A Addendum (03).		
10	Part 1	Section IV, Bidding Forms	5.15 CERTIFICATE CONFIRMING MINIMUM LOCAL CONTENT	5.15 CERTIFICATE CONFIRMING MINIMUM LOCAL CONTENT	5.15 CERTIFICATE CONFIRMING MINIMUM LOCAL CONTENT is replaced by-: Annexure (02) to ARE04A Addendum (03).		
11	Part 1	Section IV, Bidding Forms	6.13 FORM MINIMUM LOCAL CONTENT	6.13 FORM MINIMUM LOCAL CONTENT	6.13 FORM MINIMUM LOCAL CONTENT is replaced by-: Annexure (03) to ARE04A Addendum (03).		
12	Part 1	Section IV, Bidding Forms	Form 6.5 Form FIN-2: AVERAGE ANNUAL TURNOVER	Notes for the Bidders: Total INR equivalent for all years divided by the total number of years, in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.2 as appropriate.	Notes for the Bidders: i) Total INR equivalent for all years divided by the total number of years, in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.2 as appropriate. ii) Form FIN-2 shall be certified by the Chartered Account (CA). iii) Profit and Loss (P&L) statement shall be submitted to verify the Construction Turnover.		
13	Part 1	Section IV Bidding Forms	4.4.19 (New)		Price Centre 4.4.19 'RS-OVERHAUL' is added as-: Annexure (04) to ARE04A Addendum (03).		
14	Part 1	Section IV Bidding Forms	5.18 (New)		Form 5.18 "ROLLING STOCK MAJOR OVERHAUL" is added as-: Annexure (05) to ARE04A Addendum (03).		
15	Part 1	Section IV Bidding Forms	5 (TECHNICAL PROPOSAL)		New Item "5.18" is added as-:		
16	Part 2	Section VI C: ERTS – CMC of RS & DM&P	1.6.21	1.6.21 Asset Refresh Programme The Contractor shall execute an Asset Refresh Programme to restore original appearance (commensurate with the time of commencement of CMC period) of the car exterior and interior. Minimally, the following scope of tasks shall be carried out on the all trainsets under the Asset Refresh Programme: a) Refurbishment of Floor b) Re-painting of saloon and cab interior c) Buffing and polishing of stainless-steel surfaces including seats The Contractor shall plan the Works such that they are completed no later	5.18 Form MAJOR OVERHAUL 1.6.21 Asset Refresh Programme The Contractor shall execute an Asset Refresh Programme to restore original appearance (commensurate with the time of commencement of CMC period) of the car exterior and interior. Minimally, the following scope of tasks shall be carried out on the all trainsets under the Asset Refresh Programme: a) Refurbishment of Floer Replacement of floor covering b) Re-painting of saloon Interior Panels and cab interior c) Buffing and polishing of stainless-steel surfaces including seats-inside the saloon area The Contractor shall plan the Works such that they are completed no later than three (3) months prior to the end of the CMC period.		
				than three (3) months prior to the end of the CMC period.	S. a.s cino ponda.		

17	Part 3	Section VIII Particular Conditions (Part B: Specific Provisions)	SI. No. 21 PCC to GCC Clause No. 4.1	A.1.4 CMC Obligations: The Contractor's obligation under this Contract shall also include 'Comprehensive Maintenance Contract' (CMC) for Rolling Stock and Depot Plant & Machinery as defined under Part 2, Section VI C, ERTSCMC RS and DM&P & PC 4.25 of Part 3-PCC. It is clarified that all maintenance activities falling due from the time of delivery of the trainsets, until completion of the CMC Period shall be completed by the Contractor. Further no CMC Assets, shall fall due for any major maintenance or overhaul activity including replacement/ renewal within 18 months after the Expiry of the CMC Contract Period. Such Works is deemed to have been included in the quoted Lumpsum Price	A.1.4 CMC Obligations: The Contractor's obligation under this Contract shall also include 'Comprehensive Maintenance Contract' (CMC) for Rolling Stock and Depot Plant & Machinery as defined under Part 2, Section VI C, ERTSCMC RS and DM&P & PC 4.25 of Part 3-PCC. It is clarified that all maintenance activities falling due from the time of delivery of the trainsets, until completion of the CMC Period shall be completed by the Contractor. Further no CMC Assets, shall fall due- for any major maintenance or overhaul activity including replacement/ renewal within 18 months after the Expiry of the CMC Contract Period. Such Works is deemed to have been included in the quoted Lumpsum Price
18	Part 2	Section VI-C: ERTS - CMC of RS and DM&P	1.6.22 (New)		1.6.22 Major Overhaul (Optional) Based on experience, the Employer anticipates that at the completion of the 15 year CMC period, the Major Overhaul maintenance task may remain pending on a few trainsets. Therefore, to achieve maintenance parity among the fleet at the juncture of CMC Period completion, the Employer may at its entire discretion instruct the Contractor to prepone Major Overhaul on (any or all) of those trainsets that are still pending Major Overhaul by exercising the 'Option' in the Contract. The purpose of the Option, is to allow the Employer to ensure that the complete fleet of 32 trainsets will have completed overhaul by the time the CMC Period ends. The Employer may exercise the Option at anytime up until 24 months before completion of CMC period. Bidder shall refer to Major Overhaul requirements in Form 5.18 of 'Section IV Bidding Forms' and shall furnish their detailed Technical Proposal in the Bid. The Price of Major Overhaul of trainset shall be quoted in 4.4.19 Price Centre 'RS-OVERHAUL'. The Contractor shall note that exercise of above 'Option' does not relieve the Contractor of any related obligations to undertake all scheduled major overhauls (due on any trainsets during the CMC Period) as part of the scope of CMC defined in "Section VI-C: ERTS - CMC of RS and DM&P" and priced under Price Centre 'RS-CMC'.
19	Part 2	Section VI-C: ERTS - CMC of RS and DM&P	1.6.23 (New)		1.6.23 Structural Integrity Assessment (SIA) 24 (twenty four) months before the expected completion of CMC period, the Employer may, at its own cost, employ an experienced independent Consultant to perform an SIA on one (1) Trainset (to be selected by the Employer) to determine the current Asset condition, vs. the 35 year design life. The scope of the SIA shall include, but not be limited to: a) Carbody including bolster, underframe, equipment mountings, b) Bogie Frames, axle housing, Wheelset; c) Assessment of carbody camber; d) Assessment of any cracks at stress vulnerable locations on the carbody, carbody bolster and bogie frames; e) Projection of remaining asset life; f) Recommended mitigation actions required to ensure design life is achieved. In the event that the Report identifies that the assessed trainset's condition has degraded beyond the wear that is expected for the present age of the trainset or any loss of structural integrity on the subject items, then the Contractor shall undertake all necessary further monitoring and remedial action required to be undertaken on the entire fleet to ensure condition is normalised to the extent that a projected total life of 35 years will be restored.
20	Part 2	Section VI A ERTS - Rolling Stock	17.5.2.3.3	Vertical Load Testing	Vertical Load Testing: The tests shall be performed in accordance with EN 12663. Further, the Contractor shall also perform the following tests-:
21	Part 2	Section VI A ERTS - Rolling Stock	17.5.2.3.3 (a)	a) For this test, all doors of the car including detrainment door shall be installed. The doors shall be fully operational and all thresholds, seals, and weather stripping shall be in place	a) For this test, All doors of the car including detrainment door shall be installed. The doors shall be fully operational and all thresholds, seals, and weather stripping shall be in place
22	Part 2	Section VI A ERTS - Rolling Stock	17.5.2.3.3 (c)	c) One (1) seat frame of each type shall be mounted in the car shell at the time the vertical load test is conducted on the car shell. To these seat frames, a load 350 lbs shall be applied at the midpoint of each occupant position in a vertical downward direction and it shall be shown that there is no excessive sidewall deformation	c) One (1) seat frame of each type shall be mounted in the car shell at the time the vertical load test is conducted on the car shell. To these seat frames, a load 350 lbs loads mentioned in Clause 3.6.5.8 shall be applied at the midpoint of each occupant position in a vertical downward direction and it shall be shown that there is no excessive sidewall deformation
23	Part 2	Section VI A ERTS - Rolling Stock	17.6.13 (c)	The flow of the water during the test shall be not less than 2.46 liters per minute delivered to each 3.05×3.05 m of surface being tested, and the nozzle velocity of the water shall not be less than 45.72 m per second	The test shall be performed in accordance with IEC 61133 & IEC 60529 (at least IP x5)

4.4 SCHEDULE OF PAYMENTS

4.4.1 PRICE CENTRE 'RS-A' (AFTER DISCOUNT) - PRELIMINARIES, GENERAL REQUIREMENTS, DESIGN OF ROLLING STOCK AND PROVISION OF 3D VIRTUAL MODELS.

<u>DETAILS ARE NOT TO BE SUBMITTED WITHIN THE TECHNICAL BID. THEY ARE TO BE FILLED</u>
AND UPLOADED IN THE PRICE BID DOCUMENT OF E-PROCUREMENT PORTAL ONLY.

	WORK DESCRIPTION	INR	FC1	FC2	PERIOD OF COMPLETION OF MILESTONE	ALLOWABLE APPORTIONME NT (Under the			
MILESTONE NUMBER	MILESTONE ACTIVITY	COLUMN COLUMN A B		COLUMN	FROM COMMENCEMEN T DATE (QUANTITY)	Price Centre RS-A)			
Obtain the	Obtain the "No Objection With Comments (NOWC)" / "Notice of No Objection (NONO)" from the Employer / Engineer for:								
RS-A1	Submission of Preliminary Design Documents (PDR) and obtain NOWC / NONO approval from the Employer / Engineer.				NTP + 240	18.00 %			
RS-A2	Acceptance of 3D view of prototype train model to allow issue of NONO / NOWC by the Employer / Engineer.				NTP + 280	1.00 %			
RS-A3	Submission of Pre-Final Design Documents (PFDR), and obtain NOWC / NONO approval from the Employer / Engineer.				NTP + 480	27.00 %			
RS-A4	Submission of Final Design Documents (FDR), and obtain NOWC / NONO approval from the Employer / Engineer.				NTP + 600	27.00 %			
RS-A5	Submission of Test Reports, and obtain NOWC / NONO approval from the Employer / Engineer.				NTP + 1190	18.00 %			
RS-A6	Submission of As Built Drawing & Manufacturing Drawing obtain NOWC / NONO approval from the Employer / Engineer.				NTP + 240	8.00 %			
RS-A7	Submission of Compliance Matrix (for all Works) obtain NOWC / NONO approval from the Employer / Engineer.				NTP + 28	1.00 %			
RS-A : PRIO	CE CENTRE TOTAL (RS-A1 ~	_	over from Pric A' (After Disc	-		100 %			

Note: 1. Bidders shall quote for the above Price Centres including all taxes and duties.

2. In the event that the values entered in above table mismatch with the BOQ values submitted by the bidder; the BOQ values shall be considered.

4.4.2 PRICE CENTRE 'RS-CST' (AFTER DISCOUNT) – CAR SHELL STRUCTURAL QUALIFICATION TESTING

This Price Centre comprises of all requirements/ activities associated with the successful completion of the Car Shell Qualification Test as specified in ERTS - RS, Section 17.5.2.3

<u>DETAILS ARE NOT TO BE SUBMITTED WITHIN THE TECHNICAL BID. THEY ARE TO BE FILLED</u> <u>AND UPLOADED IN THE PRICE BID DOCUMENT OF E-PROCUREMENT PORTAL ONLY.</u>

	WORK DESCRIPTION	INR FC1		FC2	PERIOD OF COMPLETION OF MILESTONE	ALLOWABLE APPORTION MENT (Under			
MILESTONE NUMBER	MILESTONE ACTIVITY	COLUMN	COLUMN	COLUMN	FROM COMMENCEMEN T DATE (QUANTITY)	the Price Centre RS- CST) %			
Obtain the "	Obtain the "No Objection With Comments (NOWC)" / "Notice of No Objection (NONO)" from the Employer / Engineer for:								
	Car Shell Structural Qualification Test.								
RS-CST1	'Car shell structural qualification testing' as per ERTS-RS and the Scope of Works covered in Part-2				NTP + 480	100 %			
RS-CST : PRICE CENTRE TOTAL		Carried over from Price Centre 'RS-CST' (After Discount)				100 %			

Note: 1. Bidders shall quote for the above Price Centres including all taxes and duties.

2. In the event that the values entered in above table mismatch with the BOQ values submitted by the bidder; the BOQ values shall be considered.

4.4.3 PRICE CENTRE 'RS-FAI' (AFTER DISCOUNT) – FIRST ARTICLE INSPECTIONS

This Price Centre comprises of all requirements/ activities associated with the successful completion of the First Article Inspections as specified in ERTS - RS, Section 18.9.7

<u>DETAILS ARE NOT TO BE SUBMITTED WITHIN THE TECHNICAL BID. THEY ARE TO BE FILLED</u> <u>AND UPLOADED IN THE PRICE BID DOCUMENT OF E-PROCUREMENT PORTAL ONLY.</u>

MII ESTONE	WORK DESCRIPTION	INR	FC1	FC2	PERIOD OF COMPLETION OF	ALLOWABLE APPORTIONMEN T (Under the			
MILESTONE NUMBER	MILESTONE ACTIVITY	COLUMN	COLUMN	COLUMN	MILESTONE FROM COMMENCEMENT	Price Centre RS- FAI)			
		Α	В	С	DATE (QUANTITY)	%			
Obtain the "l	Obtain the "No Objection With Comments (NOWC)" / "Notice of No Objection (NONO)" from the Employer / Engineer for:								
	Completion and Approval of First Article Inspections.								
RS-FAI1	'First Article Inspections' as per ERTS-RS and the Scope of Works covered in Part-2				NTP + 540	100 %			
RS-FAI : PRICE CENTRE TOTAL		Carried over from Price Centre 'RS-FAI' (After Discount)				100 %			

Note: 1. Bidders shall quote for the above Price Centres including all taxes and duties.

2. In the event that the values entered in above table mismatch with the BOQ values submitted by the bidder; the BOQ values shall be considered.

4.4.4 PRICE CENTRE 'RS-CPT' (AFTER DISCOUNT) - CAR PERFORMANCE TESTS

This Price Centre comprises of all requirements/ activities associated with the successful completion of the Car Performance tests as specified in ERTS - RS, Section 17.5.4.8

<u>DETAILS ARE NOT TO BE SUBMITTED WITHIN THE TECHNICAL BID. THEY ARE TO BE FILLED AND UPLOADED IN THE PRICE BID DOCUMENT OF E-PROCUREMENT PORTAL ONLY.</u>

MILESTONE	WORK DESCRIPTION	INR	FC1	FC2	PERIOD OF COMPLETION OF	ALLOWABLE APPORTIONMENT (Under the Price Centre RS-CPT) %			
NUMBER	MILESTONE ACTIVITY	COLUMN A	COLUMN B	COLUMN	MILESTONE FROM COMMENCEMENT DATE (QUANTITY)				
Obtain the "I	Obtain the "No Objection With Comments (NOWC)" / "Notice of No Objection (NONO)" from the Employer / Engineer for:								
RS-CPT1	Car Performance test (Prototype cars on site). 'Car Performance tests (Prototype train)' as per ERTS-RS and the Scope of Works covered in Part-2				NTP + 900	100 %			
RS-CPT : PRICE CENTRE TOTAL			over from Price PT' (After Dis			100 %			

Note: 1. Bidders shall quote for the above Price Centres including all taxes and duties.

2. In the event that the values entered in above table mismatch with the BOQ values submitted by the bidder; the BOQ values shall be considered.

4.4.5 **Not Used.**

4.4.6 PRICE CENTRE 'RS-C' (AFTER DISCOUNT) - INDIGENOUS MANUFACTURE, TESTING, INSPECTION, TRANSPORTATION AND DELIVERY TO CMRL DEPOT

<u>DETAILS ARE NOT TO BE SUBMITTED WITHIN THE TECHNICAL BID. THEY ARE TO BE FILLED</u>
AND UPLOADED IN THE PRICE BID DOCUMENT OF E-PROCUREMENT PORTAL ONLY.

MUESTONE		APPO	RTIONED AN	IOUNT	PERIOD OF COMPLETION OF	ALLOWABLE APPORTION
MILESTONE NUMBER	WORK DESCRIPTION	INR	FC1	FC2	MILESTONE FROM COMMENCEMEN	MENT (Under the Price
	MILESTONE ACTIVITY	COLUMN A	COLUMN B	COLUMN C	T DATE (QUANTITY)	Centre RS-C) %

Obtain the "No Objection With Comments (NOWC)" / "Notice of No Objection (NONO)" from the Employer / Engineer for:

- a. Issue of Inspection/ clearance Certificate on satisfactory completion of all Factory Tests;
- b. Transit Insurance;
- c. Dispatch documents
- d. Delivery of cars to CMRL's property.

RS-C1	First 3 car rake (Prototype Rake)				NTP + 630	3.125 %
RS-C2	Obtain as above for first 6 train sets				NTP + 840	18.750 %
RS-C3	Obtain as above for next 6 train sets				NTP + 900	18.750 %
RS-C4	Obtain as above for next 6 train sets				NTP + 960	18.750 %
RS-C5	Obtain as above for next 6 train sets				NTP + 1020	18.750 %
RS-C6	Obtain as above for next 7 train sets				NTP + 1090	21.875 %
RS-C : PRICE CENTRE TOTAL (RS-C1 ~ RS-C6)		Carried over from Price Centre 'RS-C' (After Discount)				100 %

Notes:

- 1. The apportioned amounts (both foreign currency and local currency) in the above Table shall in proportion to the number of trains in all Milestones relevant to the Price Centre.
- 2. Speciy 'Not Applicable' against each of the rows which are not applicable under this milestone.
- 3. Bidders shall quote for the above Price Centres including all taxes and duties.
- 4. In the event that the values entered in above table mismatch with the BOQ values submitted by the bidder; the BOQ values shall be considered.

4.4.7 **Not Used.**

PRICE CENTRE 'RS-E' (AFTER DISCOUNT) - FORMATION, TESTING IN THE DEPOT FOR 4.4.8 **INDIGENOUSLY MANUFACTURED TRAINS**

DETAILS ARE NOT TO BE SUBMITTED WITHIN THE TECHNICAL BID. THEY ARE TO BE FILLED AND UPLOADED IN THE PRICE BID DOCUMENT OF E-PROCUREMENT PORTAL ONLY.

		АРРО	RTIONED AN	IOUNT	PERIOD OF COMPLETION	ALLOWABLE APPORTION			
MILESTONE NUMBER	WORK DESCRIPTION	INR	FC1	FC2	OF MILESTONE FROM COMMENCEME	MENT (Under the Price			
	MILESTONE ACTIVITY	COLUMN A	COLUMN B	COLUMN C	NT DATE (QUANTITY)	Centre RS-E) %			
Obtain the "N	Obtain the "No Objection With Comments (NOWC)" / "Notice of No Objection (NONO)" from the Employer / Engineer for:								
a) Formation	on of train, obtaining certificate of satisfac	ctory comple	tion of functi	onal tests an	d running of train	in the Depot,			
	train static	and dynami	c test in mai	nline.					
RS-E1	First 3 car rake (Prototype Rake)				NTP + 900	3.125 %			
RS-E2	Obtain as above for first 6 train sets				NTP + 930	18.750 %			
RS-E3	Obtain as above for next 6 train sets				NTP + 990	18.750 %			
RS-E4	Obtain as above for next 6 train sets				NTP + 1050	18.750 %			
RS-E5	Obtain as above for next 6 train sets				NTP + 1110	18.750 %			
RS-E6	Obtain as above for next 7 train sets				NTP + 1195	21.875 %			
RS-F: PRICE	CENTRE TOTAL (RS-F1 ~ RS-F6)	Carried o	over from Pri	ce Centre		400.0/			

Notes:

1. The apportioned amounts (both foreign currency and local currency) in the above Table shall in proportion to the number of trains in all Milestones relevant to the Price Centre.

'RS-E' (After Discount)

100 %

- 2. Speciy 'Not Applicable' against each of the rows which are not applicable under this milestone.
- 3. Bidders shall quote for the above Price Centres including all taxes and duties.

RS-E: PRICE CENTRE TOTAL (RS-E1 ~ RS-E6)

4. In the event that the values entered in above table mismatch with the BOQ values submitted by the bidder; the BOQ values shall be considered.

4.4.9 PRICE CENTRE 'RS-F' (AFTER DISCOUNT) – INTEGRATED TESTING AND COMMISSIONING OF TRAINS AND SERVICE TRIALS

<u>DETAILS ARE NOT TO BE SUBMITTED WITHIN THE TECHNICAL BID. THEY ARE TO BE FILLED</u> AND UPLOADED IN THE PRICE BID DOCUMENT OF E-PROCUREMENT PORTAL ONLY.

		APPC	RTIONED A	MOUNT	PERIOD OF COMPLETIO	ALLOWABLE
MILESTONE NUMBER	WORK DESCRIPTION	INR	FC1	FC2	N OF MILESTONE FROM	APPORTION MENT (Under the Price
HOWBER	MILESTONE ACTIVITY	COLUM N A	COLUMN	COLUMN	COMMENCE MENT DATE (QUANTITY)	Centre RS-F)

Obtain the "No Objection With Comments (NOWC)" / "Notice of No Objection (NONO)" from the Employer / Engineer for:

- a. Completion of Integrated Testing and Commissioning in the Depot;
- b. Completion of Integrated testing and Commissioning on the section in conjunction with Designated Contractors;
- c. Instrumentation Tests of First train, conducting oscillation trials as per requirement of Statutory Authorities, compilation of test Results, obtaining sanction of Statutory Authorities for fitness of train for carriage of passengers in respect of Prototype Trains only.
- d. Service Trials, for;

RS-F1	First 3 car rake (Prototype Rake)		NTP + 1050	3.125 %
RS-F2	Obtain as above for first 6 train sets		NTP + 1050	18.750 %
RS-F3	Obtain as above for next 6 train sets		NTP + 1110	18.750 %
RS-F4	Obtain as above for next 6 train sets		NTP + 1170	18.750 %
RS-F5	Obtain as above for next 6 train sets		NTP + 1230	18.750 %
RS-F6	Obtain as above for next 7 train sets		NTP + 1300	21.875 %
RS-F : PRIC	E CENTRE TOTAL (RS-F1 ~ RS-F6)	ver from Pri		100 %

Notes:

- 1. The apportioned amounts (both foreign currency and local currency) in the above Table shall in proportion to the number of trains in all Milestones relevant to the Price Centre.
- 2. Speciy 'Not Applicable' against each of the rows which are not applicable under this milestone.
- 3. Bidders shall quote for the above Price Centres including all taxes and duties.
- 4. In the event that the values entered in above table mismatch with the BOQ values submitted by the bidder; the BOQ values shall be considered.

4.4.10 **Not Used.**

4.4.11 PRICE CENTRE 'RS-H' (AFTER DISCOUNT) – TRAINING AND MANUALS.

This Price Centre comprises of all requirements / activities associated with ERTS - RS, Section 15.

<u>DETAILS ARE NOT TO BE SUBMITTED WITHIN THE TECHNICAL BID. THEY ARE TO BE FILLED</u> AND UPLOADED IN THE PRICE BID DOCUMENT OF E-PROCUREMENT PORTAL ONLY.

	WORK DESCRIPTION	APPO	RTIONED A	MOUNT	PERIOD OF COMPLETIO	ALLOWABLE APPORTIONM
MILESTONE NUMBER	WORK DESCRIPTION	INR	FC1	FC2	N OF MILESTONE FROM	ENT (Under the Price Centre
	MILESTONE ACTIVITY	COLUMN A	COLUMN B	COLUMN C	COMMENCE MENT DATE	RS-H) %
Obtain the	"No Objection With Comments (NOWC)" / "No completion of all training including del					Engineer for
RS-H0	Training for the Employer's staff (two trainer man months) shall be arranged and will be conducted at: i) the site of an Operating Railway (must be part of a network that has provided GoA-4 / UTO operations for a period >10 years) ii) the Contractor's design/primary car building facility iii) the site where System's Integration simulation testing is undertaken The training syllabus shall be jointly decided between the Contractor and the Employer. It may consist of but shall not be limited to: Rolling Stock design, manufacturing, Testing and Commissioning, Systems Integration Testing and UTO Signalling Technology.					10 %
RS-H1	Not used					
RS-H2	Not used					
RS-H3	Not used					
RS-H4	Provision of Contractor's Driving Instructors (2-man months) for Training of Employer's operating personnel in India.					10 %
RS-H5	*Provision of Contractor's Instructors and OEM's Experts (40 man months) for on job Training and supervision of Employer's maintenance personnel in the metro train depot of CMRL in India.					10 %
RS-H6	Submission of Training manuals (Original plus five hard copies) and in Electronic format.					10 %
RS-H7	Operating Manual (Original plus 5 Hard copies).					10 %
RS-H8	Operating Manual in Electronic format (interactive version).					10 %

		APPORTIONED AMOUNT			PERIOD OF COMPLETIO	ALLOWABLE
MILESTONE NUMBER	WORK DESCRIPTION	INR	FC1	FC2	N OF MILESTONE FROM COMMENCE MENT DATE	APPORTIONM ENT (Under the Price Centre RS-H) %
	MILESTONE ACTIVITY	COLUMN A	COLUMN B	COLUMN C		
RS-H9	Maintenance Manual (Original plus 5 hard copies).					10 %
RS-H10	Maintenance Manual in Electronic format (interactive version).					10 %
RS-H11	Spare parts Catalogue (Original plus 5 Hard copies).					10 %
RS-H12	Spare parts Catalogue in Electronic format					10 %
RS-H13	Any other item considered necessary by the Contractor to comply with the scope of Works					
RS-H : Price Centre Total (RS-H1 ~ RS-H13)		Carried over from Price Centre 'RS-H' (After Discount)			100 %	

- On job training and supervision during maintenance includes theoretical training as well as practical training at the time of maintenance during day and night in the Depot.
- Any other specific training as provided in the Employer's Requirement Techincal Specification is deemed to be included under this Milestone's scope.
- The manuals will be given for training of operation and maintenance staff. These manuals have to be updated taking into account the experience during the O&M phase regarding troubleshooting, modifications to control / eliminate failures etc. Final manuals to be supplied before expiry of Defects Liability Period.

Notes:

- 1. The Bidder shall not complete the column "Weeks for completion of Milestone from commencement date" for Milestones RS-H1 to RS-H6 and RS-H13
- 2. The dates of operation of the Milestones Activities for Milestones RS-H1 to RS-H6 and RS-H13 will be at the discretion of the Employer. However, the training plan of the Contractor shall ensure that training of Emoployer's personnel for carrying out the scheduled maintenance tasks are completed.
- 3. Not used.
- 4. The travel, boarding and lodging expenses for the employer's trainees sent overseas will be borne by the Employer.
- 5. Amount quoted in this Price Centre shall be the Apportioned Amount.
- 6. Bidders shall quote for the above Price Centres including all taxes and duties.
- In the event that the values entered in above table mismatch with the BOQ values submitted by the bidder; the BOQ values shall be considered.

4.4.12 PRICE CENTRE 'RS-CMC' – Comprehensive Maintenance Contract of Rolling Stock for 15 years This Price Centre comprises of all requirements / activities associated with ERTS – CMC

<u>DETAILS ARE TO BE FILLED AND UPLOADED THROUGH THE E-PROCUREMENT PORTAL</u>
<u>AS PART OF THE PRICE BID DOCUMENT. PRICING INFORMATION MUST NOT BE</u>
<u>SUBMITTED WITHIN THE TECHNICAL BID.</u>

MUESTONE	WORK DESCRIPTION	APPORTIONED AMOUNT		ALLOWABLE APPORTION MENT (Under
MILESTONE NUMBER	MILESTONE ACTIVITY	INR COLUMN A	FC1 COLUMN B	the Price Centre RS- CMC) %
Obtain the "l	No Objection With Comments (NOWC) or Notice of No Objection CMC Works:	n (NONO)" from	the Employer /	
RS-CMC1-1	Apportioned amount for 32 trainset : 1st Year (Quarter 1)			1.50 %
RS-CMC1-2	Apportioned amount for 32 trainset : 1st Year (Quarter 2)			1.50 %
RS-CMC1-3	Apportioned amount for 32 trainset : 1st Year (Quarter 3)			1.50 %
RS-CMC1-4	Apportioned amount for 32 trainset : 1st Year (Quarter 4)			1.50 %
RS-CMC2-1	Apportioned amount for 32 trainset : 2 nd Year (Quarter 1)			1.25 %
RS-CMC2-2	Apportioned amount for 32 trainset : 2 nd Year (Quarter 2)			1.25 %
RS-CMC2-3	Apportioned amount for 32 trainset : 2 nd Year (Quarter 3)			1.25 %
RS-CMC2-4	Apportioned amount for 32 trainset : 2 nd Year (Quarter 4)			1.25 %
RS-CMC3-1	Apportioned amount for 32 trainset : 3 rd Year (Quarter 1)			1.25 %
RS-CMC3-2	Apportioned amount for 32 trainset : 3 rd Year (Quarter 2)			1.25 %
RS-CMC3-3	Apportioned amount for 32 trainset : 3 rd Year (Quarter 3)			1.25 %
RS-CMC3-4	Apportioned amount for 32 trainset : 3 rd Year (Quarter 4)			1.25 %
RS-CMC4-1	Apportioned amount for 32 trainset : 4 th Year (Quarter 1)			1.25 %
RS-CMC4-2	Apportioned amount for 32 trainset : 4 th Year (Quarter 2)			1.25 %
RS-CMC4-3	Apportioned amount for 32 trainset : 4 th Year (Quarter 3)			1.25 %
RS-CMC4-4	Apportioned amount for 32 trainset : 4 th Year (Quarter 4)			1.25 %
RS-CMC5-1	Apportioned amount for 32 trainset : 5 th Year (Quarter 1)			1.25 %
RS-CMC5-2	Apportioned amount for 32 trainset : 5 th Year (Quarter 2)			1.25 %
RS-CMC5-3	Apportioned amount for 32 trainset : 5 th Year (Quarter 3)			1.25 %
RS-CMC5-4	Apportioned amount for 32 trainset : 5 th Year (Quarter 4)			1.25 %
RS-CMC6-1	Apportioned amount for 32 trainset : 6th Year (Quarter 1)			1.75 %
RS-CMC6-2	Apportioned amount for 32 trainset : 6th Year (Quarter 2)			1.75 %
RS-CMC6-3	Apportioned amount for 32 trainset : 6 th Year (Quarter 3)			1.75 %

MII ESTONE	WORK DESCRIPTION	APPORTIONED AMOUNT		ALLOWABLE APPORTION MENT (Under
MILESTONE NUMBER	MILESTONE ACTIVITY	INR COLUMN A	FC1 COLUMN B	the Price Centre RS- CMC) %
Obtain the "I	No Objection With Comments (NOWC) or Notice of No Objection CMC Works:	n (NONO)" from t	he Employer /	
RS-CMC6-4	Apportioned amount for 32 trainset : 6 th Year (Quarter 4)			1.75 %
RS-CMC7-1	Apportioned amount for 32 trainset : 7 th Year (Quarter 1)			1.75 %
RS-CMC7-2	Apportioned amount for 32 trainset : 7 th Year (Quarter 2)			1.75 %
RS-CMC7-3	Apportioned amount for 32 trainset : 7 th Year (Quarter 3)			1.75 %
RS-CMC7-4	Apportioned amount for 32 trainset : 7 th Year (Quarter 4)			1.75 %
RS-CMC8-1	Apportioned amount for 32 trainset : 8 th Year (Quarter 1)			1.75 %
RS-CMC8-2	Apportioned amount for 32 trainset : 8 th Year (Quarter 2)			1.75 %
RS-CMC8-3	Apportioned amount for 32 trainset : 8 th Year (Quarter 3)			1.75 %
RS-CMC8-4	Apportioned amount for 32 trainset : 8 th Year (Quarter 4)			1.75 %
RS-CMC9-1	Apportioned amount for 32 trainset : 9 th Year (Quarter 1)			1.50 %
RS-CMC9-2	Apportioned amount for 32 trainset : 9 th Year (Quarter 2)			1.50 %
RS-CMC9-3	Apportioned amount for 32 trainset : 9 th Year (Quarter 3)			1.50 %
RS-CMC9-4	Apportioned amount for 32 trainset : 9 th Year (Quarter 4)			1.50 %
RS-CMC10-1	Apportioned amount for 32 trainset : 10 th Year (Quarter 1)			1.50 %
RS-CMC10-2	Apportioned amount for 32 trainset : 10 th Year (Quarter 2)			1.50 %
RS-CMC10-3	Apportioned amount for 32 trainset : 10 th Year (Quarter 3)			1.50 %
RS-CMC10-4	Apportioned amount for 32 trainset : 10 th Year (Quarter 4)			1.50 %
RS-CMC11-1	Apportioned amount for 32 trainset : 11 th Year (Quarter 1)			1.50 %
RS-CMC11-2	Apportioned amount for 32 trainset : 11 th Year (Quarter 2)			1.50 %
RS-CMC11-3	Apportioned amount for 32 trainset : 11th Year (Quarter 3)			1.50 %
RS-CMC11-4	Apportioned amount for 32 trainset : 11 th Year (Quarter 4)			1.50 %
RS-CMC12-1	Apportioned amount for 32 trainset : 12 th Year (Quarter 1)			2.25 %
RS-CMC12-2	Apportioned amount for 32 trainset : 12 th Year (Quarter 2)			2.25 %
RS-CMC12-3	Apportioned amount for 32 trainset : 12 th Year (Quarter 3)			2.25 %
RS-CMC12-4	Apportioned amount for 32 trainset : 12 th Year (Quarter 4)			2.25 %
RS-CMC13-1	Apportioned amount for 32 trainset : 13 th Year (Quarter 1)			2.25 %
RS-CMC13-2	Apportioned amount for 32 trainset : 13 th Year (Quarter 2)			2.25 %
RS-CMC13-3	Apportioned amount for 32 trainset : 13 th Year (Quarter 3)			2.25 %

MILESTONE	WORK DESCRIPTION	APPORTIONED AMOUNT		ALLOWABLE APPORTION MENT (Under		
NUMBER	MILESTONE ACTIVITY	INR COLUMN A	FC1 COLUMN B	the Price Centre RS- CMC) %		
Obtain the "N	Obtain the "No Objection With Comments (NOWC) or Notice of No Objection (NONO)" from the Employer / Engineer for CMC Works:					
RS-CMC13-4	Apportioned amount for 32 trainset : 13 th Year (Quarter 4)			2.25 %		
RS-CMC14-1	Apportioned amount for 32 trainset : 14 th Year (Quarter 1)			2.25 %		
RS-CMC14-2	Apportioned amount for 32 trainset : 14 th Year (Quarter 2)			2.25 %		
RS-CMC14-3	Apportioned amount for 32 trainset : 14 th Year (Quarter 3)			2.25 %		
RS-CMC14-4	Apportioned amount for 32 trainset : 14 th Year (Quarter 4)			2.25 %		
RS-CMC15-1	Apportioned amount for 32 trainset : 15 th Year (Quarter 1)			2.00 %		
RS-CMC15-2	Apportioned amount for 32 trainset : 15 th Year (Quarter 2)			2.00 %		
RS-CMC15-3	Apportioned amount for 32 trainset : 15 th Year (Quarter 3)			2.00 %		
RS-CMC15-4	Apportioned amount for 32 trainset : 15 th Year (Quarter 4)			2.00 %		
RS-CMC : Pric 15 years CMC	e Centre Total cost for 32 Trainsets of 3 Car configuration	Carried over Centre 'R		100 %		

Note: 1) Bidders shall quote for the above Price Centres including all taxes and duties.

- 2) Only One Foregin Currency (FC) is allowed for CMC works.
- 3) Price adjustments for Foregin Currency (FC) is not applicable throughout the CMC period.
- 4) In the event that the values entered in above table mismatch with the BOQ values submitted by the bidder; the BOQ values shall be considered.

5.15 CERTIFICATE CONFIRMING MINIMUM LOCAL CONTENT

We hereby jointly and severally certify in accordance with clause '9.a' of the Order no. P- 45021 / 2 / 2017-PP (BE-II)-Part (4) Vol. II of Ministry of Commerce and Industry, Department of Promotion of Industry and Internal Trade (DPIIT) {formerly Department of Industrial Policy and Promotion (DIPP)}, Government of India dated 19 July 2024 that the item(s) offered meets the Minimum Local Content (MLC) of

- (i) 60% (For Class I Local Supplier)
- (ii) 20% (For Class II Local Suppliers)
- (iii) < 20% (For Non-Local Suppliers)

Strike off whichever is not applicable.

(60% MLC for Rolling Stock as specified in MoHUA Order No. K – 14011 / 08 / 2017 / MRTS – Coord dated 14th October 2020). The details including name of vendor, location at which the local value addition is made, and percentage of local content will be provided as per within 15 days of issue of LoA.

We acknowledge that false declaration by the tenderer regarding local value addition including payments to be made to their vendors for local value addition shall be treated as a fraudulent practice under this tender for which the tenderer or its successor can be debarred for a period up to three years along with such other actions as may be permissible under the law.

In case of procurement for a value in excess of Rs. 10 crores, we also undertake to submit a certificate from statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content, in accordance with clause '9.b' of the Order no. P – 45021 / 2 / 2017 - PP (BE – II) of Ministry of Commerce and Industry, Department for Promotion of Industry and Internal Trade (DPIIT) {formerly Department of Industrial Policy and Promotion (DIPP)}, Government of India dated 16th September 2020, after completion of works to the Engineer.

Signature of the Bidder

6.13 FORM MINIMUM LOCAL CONTENT (Applicable only for Class I Local Supplier)

Contract No.	ARE04A
Name of the Bidder:	
Minimum Local Content required for this Package: (* Derived on Total Contract Price - less the amounts quoted in Price Centres [RS-CMC] for Comprehensive Maintenance.) [The amounts taken for calculation should exclude all taxes and duties]	Minimum 60%

No.	Details of Systems, Subsystems, Parts and/or Services	Percentage (%) contribution
1		
2		
3		
4		
5		

4.4.19 PRICE CENTRE 'RS-OVERHAUL' (OPTIONAL)

<u>DETAILS ARE NOT TO BE SUBMITTED WITHIN THE TECHNICAL BID. THEY ARE TO BE FILLED</u> AND UPLOADED IN THE PRICE BID DOCUMENT OF E-PROCUREMENT PORTAL ONLY.

Ī		WORK DESCRIPTION	AMOUNT		
	SI. No.		INR	FC	
			COLUMN A	COLUMN B	
	1	Price of Major Overhaul per 3 car Trainset			

Notes:

- (i) The Bidder shall refer to Clause 1.6.22 of Part-2, Section VI-C: ERTS CMC of RS and DM&P, and Form 5.18 of Section IV of Bidding Forms, Part-1 for the details.
- (ii) Bidder shall quote his price for the Major Overhaul in Indian Rupees (INR) and/or in any one freely convertible foreign Currency under above Price Centre 'RS-OVERHAUL' per train-set basis.
- (iii) The Employer may exercise this option for any number of train-sets.
- (iv) The Employer may at its entire discretion advise the Contractor in wiriting of its intention to exercise this 'OPTION' no later than twenty four (24) months' before the completion of CMC period of 15 years. The Contractor shall be required to perform the Rolling Stock overhaul in accordance with the maintenance schedule approved by the Employer.
- (v) Price Centre 'RS-OVERHAUL' shall not be considered during evaluation.
- (vi) Scope of Overhaul shall be detailed in the Form 5.18 "MAJOR OVERHAUL" in accordance with requirements. Form shall be submitted as part of the Technical Proposal.
- (vii) "Price Variation / Price adjustment for Comprehensive Maintenance Contract (CMC)" in accordance with 'Table-D For Price Centre RS-CMC' and Clause 3.2.7 Part-1, Section-IV, Bidding Forms shall be applicable for 'RS-OVERHAUL'.
- (viii) Contractor shall furnish the details of taxes/duties/levies etc. pertaining to Price centre 'RS-OVERHAUL' separately in the Price Bid.

5.18 FORM: MAJOR OVERHAUL

Major Overhaul shall at minimum include dismantling of all sub-assemblies not limiting to bogies, suspension system, traction motor, gearcase, control equipment, air-conditioning units etc. and overhaul them to bring back to original condition, repair & replacement as necessary and inspection & trial.

Scope of Major overhauling shall include:

- Disassembly of assemblies/sub-assemblies and asset condition assessment of assemblies
 & sub-assemblies
- ii. Overhaul work activities
- iii. Major component exchange and management of overhaul exchange and repair process

Following sub-assemblies/systems shall be overhauled at the minimum-:

- a) Bogies & it's components (disassembly, removal of traction motor and other water sensitive parts, bogie washing, removal of primary & secondary suspension, removal of dampers & other components such as brake calliper/TBU, axle boxes, flange lubricators, piping, cabling, anticlimber, removal of wheelsets, brake disc, gearbox, bogie frame paint removal at critical zones, weld testing/visual inspection, repair / repainting / touch up, frame's pressure testing, re-fitment of wheelset & other components, reassembly, suspension testing, height measurement, bogie test bench/press testing etc.)
- b) Wheelsets, removal/fitment of wheels, axle inspection, UST of axles etc.,
- c) Axle box & axle bearing,
- d) Gearbox & associated parts,
- e) Traction motor & its bearings,
- f) HV & LV electrical equipment like VCB, Main transformer, surge arrestor, converter/inverter, auxiliary Inverter including battery charger, circuit breakers, relays, limit switches. Lighting system etc.
- g) Pantograph,
- h) Battery,
- i) Air conditioning equipment including replacement of condenser (as prescribed), evaporator coil (as prescribed), cleaning of air ducts,
- i) Brake equipment including brake calliper/TBU testing, valve testing using test benches,
- k) Air supply (including main compressor, auxiliary compressor testing on test bench) & pneumatic equipment,
- I) Coupler,
- m) Gangway (including replacement of wear-out parts),
- n) Door system including detrainment door,
- o) Emergency driver desk, master controller, Control & measuring equipment,
- p) Body furnishing including seats, grab poles,
- q) Carbody (including sealants), rubber fittings, hoses replacement,
- r) Floor covering replacement,
- s) Auxiliary equipment such as wiper, horn etc.

Bidder shall submit their detailed Technical Proposal as part of the Technical Bid, for assumed Major Overhaul scope that will be required on the ARE04A Rolling Stock Fleet, when the assets are 16 years ± 2 (two) years.

The Bidder's proposal shall cover minimum the following-:

- 1. Major Overhauling Strategy
- 2. Major Overhaul Schedule till the completion of stipulated design life of Rolling Stock
- 3. Duration of Major Overhaul
- 4. Organisation Chart
- 5. Sequence of major activities
- 6. Categorisation of Systems
 - a) In-situ overhaul
 - b) Off the train overhaul
- 7. Major tasks in each system's overhaul
- 8. Major replacements in each system's overhaul
- 9. Inspections during overhauls
- 10. List of major spares & consumables, kits required for overhaul.

The price of Major Overhaul shall be quoted in Price Centre 4.4.19 'RS-OVERHAUL' as part of the Price Bid.