



**SUPPLY, ERECTION, TESTING AND COMMISSIONING OF POWER SUPPLY
RECEIVING & DISTRIBUTION SYSTEM, 750 V DC THIRD RAIL TRACTION
ELECTRIFICATION AND SCADA SYSTEM FOR AHMEDABAD METRO RAIL PROJECT
PHASE-II**

TENDER NO. GMRCL/TR/AMD/EP-2 /2022

**Part – 1: Bidding Procedures
Section-III Evaluation and Qualification Criteria**

GUJARAT METRO RAIL CORPORATION (GMRC) LIMITED
(SPV of Govt. of Gujarat and Govt. of India)

Ahmedabad Metro Rail Project Phase-II

Country: India

Issued on: February 2022

Section III – Evaluation and Qualification Criteria

1. Evaluation of Initial Filter Cum Qualification Requirement Bid

- 1.1 The Criteria and methodologies for Initial Filter Cum Qualification requirement bid evaluation shall be in accordance with ITB/BDS 29.1.

1.2 Qualification Criteria

1. Eligibility and Qualification Criteria		Compliance Requirements				Documentation
Criterion	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
1.1 Nationality	Nationality in accordance with ITB 4.3	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI-1.1 and ELI-1.2, with attachments
1.2 Conflict of Interest	No conflicts of interest in accordance with ITB 4.2	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of IFCQR Bid
1.3 AFD Eligibility	Not being ineligible to AFD financing, as described in ITB 4.3	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Statement of Integrity (appendix to Letter of IFCQR Bid)
1.4 State-Owned Entity	Meet conditions of ITB 4.3	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI-1.1 and ELI-1.2, with attachments

2. Historical Contract Non-Performance		Compliance Requirement			Documentation	
Criterion	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
2.1 History of Non-Performing Contracts	Termination of a contract ¹ did not occur as a result of Bidder's default in the past five (5) years.	Must meet requirement ² .	Must meet requirement	Must meet requirement ²	N/A	Form CON-2
2.2 Suspension Based on Execution of Bid Securing Declaration by the Employer	Not under suspension based on execution of a Bid Securing Declaration pursuant to ITB 4.4.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of IFCQR Bid
2.3 Pending Litigation	All pending litigation shall in total not represent more than one hundred percent (100%) of the Bidder's net worth and shall be treated as resolved against the Bidder.	Must meet requirement	N/A	Must meet requirement	N/A	Form CON-2
2.4 Litigation History	No consistent history of court/arbitral award decisions against the Bidder in last five years.	Must meet requirement	N/A	Must meet requirement	N/A	Form CON-2

¹ Non-performance shall include all terminations of contracts where (a) non-performance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Non-performance shall not include contracts where Employers decision was overruled by the dispute resolution mechanism.

² This requirement also applies to contracts executed by the Bidder as JV member.

3. Financial Situation and Performance		Compliance Requirement				Documentation
Criterion	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
3.1 Financial Capabilities	(i) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as INR 575 million for the subject contract(s) net of the Bidder's other commitments. This can be seen from the balance sheets and/or from the banking reference. Net current assets {(Current assets + loans & advances) – (current liabilities + provision)} or documents including banking reference, should show that the Bidder has access to or has available liquid assets, lines of credit and other financial means to meet cash flow INR 575 million for this contract, net of Bidder's commitments for other Contracts. Banking reference should contain in clear terms that in case LOA is issued to the Bidder, the bank will be in a	Must meet requirement	Must meet requirement	N/A	N/A	Forms FIN-3.1, FIN-3.3 (a) and FIN 3.3 (b)

3. Financial Situation and Performance		Compliance Requirement				Documentation
Criterion	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
	<p>position to lend for this work to the Bidder/member of the Joint Venture/Consortium preferably in the form given in Section IV: Bidding Forms and Schedules - Bidder's Qualification- Form FIN-3.3(b). In case the Net Current Assets (as seen from the Balance Sheets) are negative, only the Banking references will be considered. Otherwise the aggregate of the Net Current Assets and submitted Banking references will be considered for working out the Liquidity.</p> <p>a. Liquidity of INR 575 million available: Pass</p> <p>b. Liquidity of INR 575 million not available: Fail</p>					
	(ii) The Bidder shall also demonstrate, to the satisfaction of the Employer, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments	Must meet requirement	Must meet requirement	N/A	N/A	Forms FIN-3.1 and FIN-3.4(a)
	(iii) The minimum requirements to 'Pass' this criteria is that the Balance sheets should indicate	Must meet requirement	N/A	Must meet requirement	Leader must meet requirement	Form FIN-3.1, with attachments

3. Financial Situation and Performance		Compliance Requirement				Documentation
Criterion	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
	that the Net Worth of the Bidder (to be obtained from audited Balance Sheet) shall be positive in the audited statement of any 3 of the last 5 financial years. The financial year as applicable in the country of origin of the bidders would be considered. The 'last financial year' will be the latest financial year that ended on or before 31.03.2021.					

3. Financial Situation and Performance		Compliance Requirement				Documentation
Criterion	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
3.2 Minimum Annual Turnover	<p>(i) The minimum requirements to 'Pass' this criteria is that the Average Annual Construction Turnover for the last five financial years (in terms of rupee equivalent adjusted to last date of the financial year that ended on or before 31.03.2021 by assuming 5% escalation for Indian Rupee and 2% for foreign currency per year) shall not be less than INR 3455 million.</p> <p>(ii) The value of annual turnover shall be calculated as total certified payments received for Contracts in progress and/or completed, within last Five Financial years divided by Five years.</p> <p>(iii) The financial year as applicable in the country of origin of the bidders would be considered. The 'last financial year' will be the latest financial year that ended on or before 31.03.2021.</p>	Must meet requirement	Must meet requirement	Must meet 25% of the requirement	Must meet 40% of the requirement	Form FIN-3.2 (a)
3.3 Available Bid Capacity	As per below mentioned methodology.	Must meet requirement	Must meet requirement	N/A	N/A	Form FIN-3.2 (a), FIN-3.4(a) & FIN-3.4(b)

Methodology for Working out the Available Bid Capacity

The Bidders will be qualified only if their available bid capacity is more than INR 3840 million. Available bid capacity will be calculated as under:

$$\text{Available Bid Capacity} = 2 * A * N - B$$

Where,

A = Maximum value of Construction works executed in any one year during the last five financial years only audited value as certified by Chartered Accountant and as contained in the corresponding Audited Annual account Statement/Book of accounts of the concerned financial year to be considered and will be updated to 31.03.2021 price level assuming 5% inflation for Indian Rupees every year and 2% for foreign currency portions per year.

N = No. of years in which supply and commissioning is to be made (N = 1.58 years in this case)

B = Value at price level as on the twenty-eight days prior to 'date for Bid submission' of on-going works (works in hand) to be completed during next 1.58 years starting from the twenty-eight days prior to 'date for Bid submission'.

Note:

In case of a Joint Venture/Consortium, the above formula will be applied to each member to the extent of his proposed percentage (%) participation in the execution of the work. The Bid Capacity of the Joint Venture/Consortium will be the sum total of the Bid Capacity of each member of the Joint Venture/Consortium as calculated above.

Value of 'A': The maximum value of Construction works in any one year during last five (5) years ('A' in the above formula) shall be the maximum turnover of Construction works in any one (1) financial year during the last five(5) financial years. Financial year as applicable in the country of origin of the bidders would be considered. The turnover of Construction works to be furnished in response to Section-IV: Qualification and Bidding Forms: Form FIN-3.2 (a) shall be considered for evaluating the value 'A' in above formula and the details furnished by the Bidder shall be supported with audited copies, duly certified by Independent chartered accountant/CPA, indicating Annual turnover of Construction works only.

Value of 'B': The value of ongoing works (works in hand) ('B' in the above formula) as furnished in response to Section-IV: Qualification and Bidding Forms: Form FIN-3.4 (a) and FIN-3.4 (b) shall be considered. The 'twenty-eight days prior to date for Bid submission' means for e.g: Say, if 'date for Bid submission' is 15.01.2020, then 'twenty-eight days prior to date for Bid submission' will be 18.12.2019 and next 1.58 years period will be period up to 17.07.2021.

4. Experience		Compliance Requirement				Documentation
Criterion	Requirements	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
4.1 General Construction Experience	Experience under construction contracts in the role of prime contractor, (Single entity or JV/Consortium member), subcontractor, or management contractor for at least the last 5 years, ending last day of the month previous to the month of tender submission.	Must meet requirement	N/A	Must meet requirement	N/A	Form EXP-4.1
4.2 (a) Specific Construction & Contract Management Experience	(i) A minimum number of One (1) similar ³ contract of value INR 305 Crores or above, comprising of: either Electrical Traction & Power System Works in Metro Rail/ Suburban Rail/ Main line Railways/ Mono Rail/Tramways; or High Voltage (33KV and above) Electrical Power Works involving Transmission lines, Cabling, Transformers, Switchgear, Protection system in Power Plant/ Power Transmission & Distribution Works/Heavy	Must meet requirement	Must meet requirement ³	N/A	N/A	Form EXP-4.2(a)

4. Experience		Compliance Requirement				Documentation
Criterion	Requirements	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
	<p>Industries like Cement, Steel, Petrochemicals ; that have been satisfactorily and substantially⁴ completed as a prime contractor (single entity or JV member)⁵ management contractor or subcontractor between 1st January 2011 and bid submission deadline.</p> <p>OR</p> <p>A minimum number of Two (2) similar³ contracts each of value INR 190 Crores or above comprising of: either Electrical Traction & Power System Works in Metro Rail/ Suburban Rail/ Main line Railways/ Mono Rail/Tramways; or High Voltage (33KV and above) Electrical Power Works involving Transmission lines, Cabling, Transformers, Switchgear, Protection system in Power Plant/ Power Transmission & Distribution Works/Heavy Industries like Cement, Steel, Petrochemicals ; that have been satisfactorily and substantially⁴ completed as a prime contractor (single entity or</p>					

4. Experience		Compliance Requirement				Documentation
Criterion	Requirements	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
	<p>JV member)⁵ management contractor or subcontractor between 1st January 2011 and bid submission deadline. This experience can be of different partners of the bidder in case of JV / Consortium.</p> <p>OR</p> <p>A minimum number of Three (3) similar³ contracts each of value INR 150 Crores or above comprising of: either Electrical Traction & Power System Works in Metro Rail/ Suburban Rail/ Main line Railways/ Mono Rail/Tramways; or High Voltage (33KV and above) Electrical Power Works involving Transmission lines, Cabling, Transformers, Switchgear, Protection system in Power Plant/ Power Transmission & Distribution Works/Heavy Industries like Cement, Steel, Petrochemicals ; that have been satisfactorily and substantially⁴ completed as a prime contractor (single entity or</p>					

4. Experience		Compliance Requirement				Documentation
Criterion	Requirements	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
	JV member) ⁵ management contractor or subcontractor between 1st January 2011 and bid submission deadline. This experience can be of different partners of the bidder in case of JV / Consortium.					
4.2 (b) Specific Experience	For the above or any other contracts completed and under implementation as prime contractor (Single entity or joint venture/ Consortium member), management contractor or subcontractor ⁴ on or after the first day of the calendar year during the period stipulated in 4.2 (a) above, a minimum construction experience in the following key	Must meet requirement	Must meet requirement	N/A	Must meet the following requirements for the key activities listed below <i>[list key activities and the corresponding minimum requirements]</i>	Form EXP-4.2(b)

³ The similarity shall be based on the physical size, complexity and technicity of the Works. Adding up small value contracts (less than the value specified under requirement) to meet the overall requirement will not be accepted.

⁴ Substantial completion shall be based on 80% or more works completed under the contract.

⁵ For contracts under which the Bidder participated as a joint venture member, only the Bidder's share, by value, shall be considered to meet this requirement.

⁶ In the case of a JV, the value of contracts completed by its members shall not be aggregated to determine whether the requirement of the minimum value of a single contract has been met. For instance, if the criterion mentions "two (2) contracts with a minimum value of 50M\$ each", a JV composed of 3 members and having carried out four (4) contracts of 30M\$ each shall not be qualified. On the other hand, if 2 of the 3 members of the JV each carried out one (1) contract of 50M\$, the criterion is met, even if the third member does not have any contract of this value.

⁴ For contracts under which the Bidder participated as a joint venture member or subcontractor, only the Bidder's share shall be counted to meet this requirement.

⁸ For example, experience of works while in operation may be required under this criterion. Volume, number or rate of production of any key activity can be demonstrated in one or more contracts combined if executed during same time period. The rate of production shall be the annual production rate for the key construction activity (or activities).

4. Experience		Compliance Requirement				Documentation
Criterion	Requirements	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
	activities (A+B+C+D+E+F) successfully completed ⁵ :					
	Key Activity A: RSS Construction, Supply, testing and commissioning of at least One (1) Receiving Substation with primary voltage of 66 kV and above; with use of AIS/GIS; along with other associated works.	Must meet requirement	Must meet requirement	N/A	Must meet requirements	Form EXP-4.2(b)
	Key Activity B: ASS Supply, Installation, Testing and Commissioning of at least 9 Auxiliary Sub-Stations with primary voltage of 11kV and above voltage or value of ASS system work of INR 10 Cr or more.	Must meet requirement	Must meet requirement	N/A	Must meet requirements	Form EXP-4.2(b)
	Key Activity C: Cabling Supply, installation, testing and commissioning of HV (11kV or above) cable network system for minimum length of 11 RKM or value of HV cabling work of INR 16 Cr or more	Must meet requirement	Must meet requirement	N/A	Must meet requirements	Form EXP-4.2(b)

4. Experience		Compliance Requirement				Documentation
Criterion	Requirements	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
	Key Activity D : TSS Supply and Supervision of erection, testing and commissioning of at least 05 Traction Substations of 600V DC or above with the use of AIS/GIS for Metro Rail/ Suburban Rail/ Main line Railways/ Mono Rail /Tramways or value of TSS system work of INR 34 Cr or more.	Must meet requirement (can be a specialized subcontractor)	Must meet requirement (can be a specialized subcontractor)	N/A	Must meet requirements	Form EXP-4.2(b)
	Key Activity E: SCADA Supply, Erection, testing and commissioning of SCADA system for Metro Rail/ Suburban Rail/ Main line Railways/ Mono Rail/Tramways for minimum length of 11 RKM or value of SCADA system work of INR 5 Cr or more.	Must meet requirement (can be a specialized subcontractor)	Must meet requirement (can be a specialized subcontractor)	N/A	Must meet requirements	Form EXP-4.2(b)
	Key Activity F: Third Rail Supply and Supervision of erection, testing & commissioning of 600V/750V or above DC Third rail Traction Electrification system for Metro Rail/ Suburban Rail/MonoRail/Mainline Railway/Tramway for minimum length of 11 RKM (22TKM)	Must meet requirement (can be a specialized subcontractor)	Must meet requirement (can be a specialized subcontractor)	N/A	Must meet requirements	Form EXP-4.2(b)

4. Experience		Compliance Requirement				Documentation
Criterion	Requirements	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
	(Composite Rail) or value of Third Rail system work of INR 46 Cr or more.					

Note:

- (i) The experience of key activity A to F can be of any member of JV/consortium or subcontractor / prime contractor or Management contractor in works against clause no. 4.2 (b) (Specific Experience).
- (ii) A management contractor is a firm which takes on the role of contract management as a “general” contractor of sort could do. It does not normally perform directly the construction work(s) associated with the contract. Rather, it manages the work of other (sub) contractors while bearing full responsibility and risk for price, quality, and timely performance of the work contract.

5. Environmental, Social, Health and Safety (ESHS) ¹							
Criterion	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements	
			All Parties Combined	Each Member	One Member		
5.1 ESHS Certification(s)	Availability of a valid ISO certification or internationally recognized equivalent (equivalency to be demonstrated by Bidder), and applicable to the worksite: <input type="checkbox"/> Quality management certificate ISO 9001 ² ; <input type="checkbox"/> Environmental management certificate ISO 14001 ³ ; <input type="checkbox"/> Health and safety management certificate ISO 45001 ⁴ .	Must meet requirement	N/A	N/A	Leader must meet requirement	Form CER Form CER Form CER	
5.2 ESHS Documentation	Availability of in house policies and procedures	Must meet requirement	N/A	N/A	Leader must meet requirement	1. The ESHS Ethics Charter of the company or equivalent must be provided.	

⁹ [Those ESHS qualification criteria may be reduced or deleted if the worksites management is of minor Environmental, Social, Health and Safety impact.]

¹⁰ [The ISO 9001 certification covers the principles of quality management, including a strong customer focus, motivation and commitment of management, process approach and continuous improvement. **This certification is to be required in case of complex organization of the worksite.**]

¹¹ [The ISO 14001 certification defines the criteria for an environmental management system. **This certification is to be required in case of environmental issues of the worksite.**]

¹² [The ISO 45001 certification defines a management system for health and safety at work with the overall objective of preventing the occurrence of work related injuries and diseases among workers and providing safe and healthy workplaces. **This certification is to be required in case of health and safety issues.**]

5. Environmental, Social, Health and Safety (ESHS) ¹						
Criterion	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
	acceptable to the Employer for ESHS management: <ul style="list-style-type: none"> <input type="checkbox"/> Existence of a system for monitoring compliance with ESHS commitments for the Bidder's subcontractors and all its partners; <input type="checkbox"/> Existence of official company procedures for the management of the following relevant points: <ul style="list-style-type: none"> <input type="checkbox"/> Health & Safety on worksites; <input type="checkbox"/> Traffic management; <input type="checkbox"/> Hazardous products; <input type="checkbox"/> Wastewater (effluents); <input type="checkbox"/> Atmospheric emissions, noise and vibrations; <input type="checkbox"/> Waste management; <input type="checkbox"/> Control of infectious and communicable diseases (Covid19, HIV/AIDS, malaria, etc.). 					2. A procedure or information on how the Bidder ensures that all members of the Joint Venture, subcontractors, suppliers and temporary labor (i) are aware and (ii) meet ESHS requirements must be provided. 3. Official internal procedure documents on the topics indicated must be provided.

5. Environmental, Social, Health and Safety (ESHS) ¹						
Criterion	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
			All Parties Combined	Each Member	One Member	
	<input type="checkbox"/> Prevention and Management of Gender based violence/sexual harassment					
5.3 Similar Experience	Experience of two construction contracts over the last 10years, where major ESHS measures were carried out or are on progress satisfactorily and in compliance with international standards.	Must meet requirement	N/A	N/A	Leader must meet requirement	Form EXP-ESHS with supporting documents (the Bidder shall submit a piece of evidence supporting the ESHS implementation measures)
5.4 Specific ESHS Knowledge Transfer Experience	Experience of one (1) construction contract in developing and emerging countries over the last five (5) years in which the ESHS knowledge transfer to a local partner or the ESHS capacity building of the Employer's country staff was carried out satisfactorily	Must meet requirement	N/A	N/A	Leader must meet requirement	Form EXP-ESHS with supporting documents (The Bidder shall submit a piece of evidence supporting the ESHS knowledge transfer or capacity building)
5.5 ESHS Dedicated Personnel	Availability of in-house personnel dedicated to ESHS issues: Environmental and Social Manager, and/or Health and Safety Manager.	Must meet requirement	N/A	N/A	Leader must meet requirement	Organizational chart evidencing filled ESHS position(s). In case bidder do not have inhouse personnel for any of ESHS requirements, they should propose independent agency to carry out activities that meeting certification requirements of 5.1 & 5.2

2. Evaluation of Technical Bid

In addition to the criteria listed in ITB 29.2 the following criteria shall apply:

2.1 Assessment of adequacy of technical proposal with requirements:

The assessment of the technical proposal submitted by a Bidder shall comprise (a) evaluation of the Bidder's technical capacity to mobilize key equipment and key personnel to carry out the Works, (b) construction method, (c) construction schedule and (d) sufficiently detailed supply sources, in accordance with requirements specified in Section VII - Works Requirements.

If the environmental and social risks are evaluated as high and/or impacts as significant, and therefore, the Bidding Documents include ESHS Specifications, then the technical proposal shall comprise an ESHS Methodology. The ESHS Methodology submitted by the Bidder shall be evaluated to determine whether it is substantially responsive (i.e. without material deviation, reservation or omission) to the requirements specified in Section VII - Works Requirements - ESHS Specifications. The Bidder shall use the ESHS Methodology Form provided for this purpose in Section IV - Bidding Forms - Technical Proposal. A Bid not comprising an ESHS Methodology or a Bid for which the ESHS Methodology is not substantially responsive (i.e. with material deviation, reservation or omission) shall be rejected.

2.2 Personnel:

The Bidder must demonstrate that it has the personnel for the key positions that meet the following requirements:

S. No	Position	Minimum No. of Staff Requirement	Total Work Experience (years)	Experience in Similar Works (years)
1.	Project Manager	1	15	10
2.	Deputy Project Manager	2	10	5
3.	Third Rail Design Engineer	1	10	5
4.	Design Engineer (ASS & TSS)	1	10	5
5.	Design Engineer (RSS)	1	10	5
6.	Installation Site Engineer (ASS+TSS+ RSS)	2 Teams*	5	3
7.	Installation Site Engineer (Third Rail)	1 Team*	5	3
8.	Relay Coordination & Protection Specialist	1	10	5
9.	SCADA Design Engineer	1	10	5
10.	SCADA Installation Engineer	1 Team*	5	3
11.	Testing and Commissioning Engineer In-Charge	2	10	5
12.	Civil & Structural Design Engineer	1	10	5
13.	Civil Engineer for Execution	2	5	3
14.	Interface Manager	1	10	5
15.	Procurement Manager	1	10	5

16.	Quality Assurance Manager	2	10	5
17.	SHE Manager	1	10	5
18.	Planning Engineer	1	5	3

The Bidder shall provide details of the proposed personnel and their experience records using Forms PER-1 and PER-2 included in Section IV - Bidding Forms.

All the above said key positions should have minimum of Graduation degree in Engineering in respective field. For positions in Sr. No. 6, 7, 10,11 and 13 above Diploma with (+4) years of additional experience in respective field is also acceptable.

Please note that in case GMRCL/GEC judges that the continuation of any person of the tenderer including its subcontractor(s) is not in the interest of project, a written notice will be given to tenderer, who has to promptly remove the person within a week. GMRCL/GEC can withdraw the approval of any persons at any stage during execution.* Team comprising of all necessary Engineering and Technical Staff and the team size shall be increased as per instructions of the Engineer (at no additional cost to employer) in case the contractor is not able to achieve progress as per key-dates.

2.4 Equipment:

The Bidder must demonstrate that it can obtain (purchase, lease or rent) the key equipment listed hereafter:

No.	Equipment Type and Characteristics	Minimum Number Required
1	JCB	2
2	100 Ton Crane	1
3	20 Ton Crane	5
4	Rail Cum Road Vehicle	3
5	Oil Filtration Plant	2
6	Concrete Mixing Plant	2
7	Cube Testing Machine	2
8	Trucks	5
9	Welding Plant	10
11	Generator (>25 kVA)	5
12	High Pot testing Kit for 33kV Cable	2
13	Megger(of suitable ratings)	2
14	Data Logger	2
15	Relay Testing Kit(Primary and Secondary injection testing Kits)	2
16	BDV test Kit	2
17	Cable Fault Locator	2
18	33kV Cable Laying Drum Trolley	2
19	Third Rail Mounting and Commissioning Vehicle	2
20	Others to be listed by the Tenderer	

The Bidder shall provide further details of proposed items of equipment using Form EQU in Section IV - Bidding Forms.

3. Evaluation of Price Bids

In addition to steps listed in ITB 35 the following method of adjusting the Bid Prices will apply to arrive at the lowest estimated Bid price for each Bid

3.1 “Capitalization of Transformer Losses in terms of relevant clause of Appendix-H to Annexure ITT-3 as specified in Section IV Bidding Forms”

To evaluate a Price Bid, the Employer shall also consider the following clause:

The transformers shall be designed for minimum loss.

When comparing between different Tenderers, the present value of the capitalised cost of loss in the transformers shall be added to their Price Bid by the following formula

$$PW = K * 365 * 24 * C (W_{ir} + b^2 W_{cu}) / 1000$$

where

PW is the present worth (in INR) of annual capitalised cost of losses at 8% rate of interest over 25 years

K is the present worth factor (8% interest, 25 years) = $\{(1+0.08)^{25} - 1\} / \{0.08 * (1+0.08)^{25}\} = 10.675$

C is the cost per unit energy (kWh) (in INR) = INR 4.35 (Note: This energy cost per unit mentioned here is for the purpose of competitive evaluation of price bid only)

W_{ir} is the iron losses in Watts at normal voltage and main tapping

W_{cu} is the full load copper losses in Watts at normal voltage and main tapping at 95°C

b is the load factor of transformer = 50 %

Thus

$$PW = 10.675 * 365 * 24 * 4.35 (W_{ir} + b^2 W_{cu}) / 1000$$

$$PW = 406.78 (W_{ir} + 0.25 W_{cu})$$

In case the transformer losses during tests are found greater than the values guaranteed in the offer, a consolidated penalty shall be paid by the contractor, according to the following formula (for the tolerance permissible according to IEC standard):

$$406.78 (d W_{ir} + 0.25 * d W_{cu})$$

Where:

$d W_{ir}$ and $d W_{cu}$ are the differences between the test values of iron losses at full voltage and copper loss at full load on one transformer at main tapping and the values guaranteed in the offer.

3.2 Domestic Preference:

3.2.1 A margin of preference shall be granted to the Bidders, in accordance with, and subject to, the following provisions:

- a) A margin of preference shall be granted to the bidders during financial evaluation as per following:

S. N.	% of local content offered by bidder in FT-19	Applicable Domestic Preference (Margin of preference)
1	60% to 100%	7.5%

2	< 60%	<p>Below 7.5% and will be calculated according to the offered percentage of local content as follow:</p> <p>% of local content as offered by bidder * 7.5%</p> <p>(for e.g.:- if bidder offered 40% local content, Margin of preference shall be calculated as under:</p> <p>=0.40* 7.5%= 3% Price Preference).</p>
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- b) The bidder shall declare the amount of percentage (%) local content (for Engineering, design, supply, Erection, testing & commissioning as admissible) offered for the bid in the form Appendix FT-19 during the Price bid submission stage. In case employer request, the bidder has to submit the detailed breakdown of percentage (%) offered in local content.

Bidder shall note that certificate from statutory auditor or cost auditor of the company (in the case of companies) or from practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content (as offered Appendix FT-19) shall be submitted by bidder along with the bid submission.

- c) Local content shall mean the amount of value added in India, which shall be the total value of contract (excluding net domestic Indirect Taxes) minus the value of imported content in the contract (including all custom duties) as a proportion of total value, in percent.

Bidder shall note in their bid that, the component of the cost of such items of local value addition shall be quoted only in INR.

- d) After bids have been received and reviewed by the employer, responsive bids shall be classified into the following groups:

Group A:- Bids offering the local content from 60% to 100%.

Group B:- Bids offering the local content < 60%.

- e) The comparison and evaluation methodology for price bid is as under:

- I. All evaluated Bids in each group shall, as a first evaluation step, be compared to determine the lowest Bid, and the lowest evaluated Bids in each group shall be further compared with each other.
- II. If, as a result of this comparison, a Bid from Group A is the lowest, it shall be selected for the award.
- III. If a Bid from Group B is the lowest, as a second evaluation step, all Bids from Group B shall then be further compared with the lowest evaluated Bid from Group A. For the purpose of this further comparison only, an amount of margin of preference as specified in table mentioned in above clause no. 3.2.1 (a) of the respective Bid price corrected for arithmetical errors, including unconditional discounts but excluding Provisional Sums shall be added to the evaluated bid price offered in each Bid from Group B. If the Bid from Group A is the lowest, it shall be selected for award with the total evaluated bid price as per clause no. 3.2.1 (e) (I). If not, the lowest evaluated Bid from Group B shall be selected for award with the total evaluated bid price as per clause no. 3.2.1 (e) (I).

Example:

The following examples shows the evaluation & comparison methodology for illustration purpose only:

Case-1:- When lowest bid is from Group-A Bidder.

Bidder	Bidder A (Group-A)	Bidder B (Group-B)	Bidder C (Group-B)
Total evaluated bid price (in Rs.)	100	102	103

After comparison of total evaluated bid price, a Bid from Group A is the lowest. Hence, it shall be selected for the award with total evaluated bid price of **Rs. 100.**

Case-2:- When lowest bid is from Group-B Bidder.

A:-

Bidder	Bidder A (Group-A)	Bidder B (Group-B)	Bidder C (Group-B)
Total evaluated bid price (in Rs.)	102	98	99
% Local content offered by bidder (FT-19)	60% (Group A)	40% (Group B)	0% (Group B)
Applicable Domestic Preference (Margin of preference)	7.5%	3% (=0.40* 7.5%)	0%
Total bid price (in Rs.) for the purpose of comparison only	102	102.41 (=98 + 98*(7.5-3) %)	106.425 (=99 + 99*(7.5-0) %)

After comparison of total evaluated bid price, a Bid from Group B is the lowest. For the purpose of comparison only, an amount of margin of preference as specified in table mentioned in above clause no. 3.2.1 (a) of the respective Bid price corrected for arithmetical errors, including unconditional discounts but excluding Provisional Sums has been added to the evaluated price offered in each Bid. After this comparison the total bid price of Bidder-A (Group A) is lowest. Hence, Bidder-A shall be selected for the award with total evaluated bid price of **Rs. 102.**

B:-

Bidder	Bidder A (Group-A)	Bidder B (Group-B)	Bidder C (Group-B)
Total evaluated bid price (in Rs.)	102	95	99
% Local content offered by bidder (FT-19)	60% (Group A)	40% (Group B)	0% (Group B)
Applicable Domestic Preference (Margin of preference)	7.5%	3% (=0.40* 7.5%)	0%

Total bid price (in Rs.) for the purpose of comparison only	102	$99.275 (=95 + (95*(7.5-3) \%)$	$106.425 (=99 + (99*(7.5-0) \%)$
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After comparison of total evaluated bid price, a Bid from Group B is the lowest. For the purpose of comparison only, an amount of margin of preference as specified in table mentioned in above clause no. 3.2.1 (a) of the respective Bid price corrected for arithmetical errors, including unconditional discounts but excluding Provisional Sums has been added to the evaluated price offered in each Bid. After this comparison, the total bid price of Bidder-B (Group B) is lowest. Hence, Bidder-B shall be selected for the award with total evaluated bid price of **Rs. 95**.