



BANGALORE METRO RAIL CORPORATION LIMITED
 (A Joint Venture of Govt. of India and Govt. of Karnataka)
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No.BMRCL/Tender/CEE(Ph-II)/035/2015-16/

Dated :- 25/07/2015

NOTICE INVITING TENDERS FOR TENDER NO. EPDD-3

DETAILED DESIGN CONSULTANCY SERVICES FOR POWER SUPPLY & DISTRIBUTION SYSTEM, 750 V DC THIRD RAIL TRACTION ELECTRIFICATION AND SCADA SYSTEM FOR REACH-5 & REACH-6 OF BANGALORE METRO RAIL PROJECT PHASE II.

1. BMRCL invites sealed tenders for Detailed Design Consultancy Services for Power supply & Distribution system, 750 V DC Third rail traction electrification and SCADA system for Reach-5 & Reach-6 of Bangalore Metro Rail Project Phase II.

The details of the tender are as follows:

TENDER NO.	EPDD-3
NAME OF WORK	DETAILED DESIGN CONSULTANCY SERVICES FOR POWER SUPPLY & DISTRIBUTION SYSTEM, 750 V DC THIRD RAIL TRACTION ELECTRIFICATION AND SCADA SYSTEM FOR REACH-5 & REACH-6 OF BANGALORE METRO RAIL PROJECT PHASE II
SECTION	(a) Reach-5: R V Road Terminal to Bommasandra via Silk Board junction– 18.82 km (Elevated) Depot at Hebbagodi (b) Reach-6: Gottigere to Nagavara – 21.25 km (Under Ground 13.79 km, balance elevated and ramp) Depot at Kothanur (c) Total : 40.07 km
ESTIMATED TENDER AMOUNT	INR 6,50,00,000(Indian Rupees Six Crore Fifty Lakhs)
COST OF TENDER DOCUMENT	INR 65,000 (Indian Rupees Sixty Five Thousand)
TENDER SECURITY AMOUNT	INR 10,00,000 (Indian Rupees Ten Lakhs) USD -16,000 (sixteen thousand US dollars)
DATE OF ISSUE OF TENDER DOCUMENT	From 25/07/2015 to 28/08/2015 during office hours.
PRE BID MEETING TO BE HELD ON	10.08.2015 11.00 Hrs
LAST DATE OF SUBMISSION OF CLARIFICATION	17.08.2015
LAST DATE OF SUBMISSION OF TENDER DOCUMENT	28.08.2015 , 15.00 Hrs
Date and time of Tender Opening	28.08.2015 , 15.30 Hrs

PLACE OF SUBMISSION & OPENING OF TENDERS	Office of the Managing Director Bangalore Metro Rail Corporation Ltd III Floor, BMTC Complex K. H Road, Shanthinagar Bangalore – 560 027 Karnataka (India).
ADDRESS FOR COMMUNICATION	Chief Electrical Engineer (Traction) – Phase II Bangalore Metro Rail Corporation Ltd, III Floor, BMTC Complex K H Road, Shanthinagar Bangalore – 560 027 Karnataka (India) Ph No: +91 80 2296 92224 Mob No: +91 9480825751 Fax No:+91 80 2296 9222

2. For this work of Detailed Design Consultancy Services for Power supply & Distribution system, 750 V DC Third rail traction electrification and SCADA system for Reach-5 & Reach-6 of Bangalore Metro Rail Project Phase II as detailed below, the Tender Documents describing the Scope of Work and the Terms and Conditions of Contract, etc; accompany this Letter of Invitation.
3. A complete set of tender documents may be obtained/purchased by any interested eligible Tenderer on the submission of written application to the Chief Electrical Engineer (Phase-II), BMRCL, upon payment of non refundable fee of Rs.65,000/- (Indian rupees sixty five thousand only) inclusive of all taxes in the form of DD/Pay order drawn in favour of Bangalore Metro Rail Corporation Limited, payable at Bangalore, from BMRCL office.

4. Tender Documents consists of:

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- Instructions to Tenderers & Qualifying Requirements
- Conditions of Contract
- Part I - General Conditions of Contract (GCC)
- Part II - Special Conditions of Contract (SCC)
- Appendix A - Scope of Work
- Appendix B – Standard Pro forma including Form of Agreement
- Appendix C – Outline Design Criteria
- Appendix D – GADs

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- Appendix E - Financial Package.

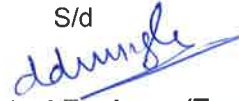
5. Two sets of Tender documents shall be issued out of which one set of Tender documents along with Employer's clarification on queries including addenda (if any) are to be submitted with the Tender submittal un-tampered, duly signed and stamped on each page.

6. The Tender submission shall include:

- i. Tender Guarantee/EMD
- ii. Technical Package
- iii. Financial Package and

- iv. One set of un-tampered Tender documents duly signed.
7. In respect of sealing and submission of documents, the relevant clauses of instructions to Tenderers shall be referred to. (please refer to Para no.5.1-5.7.6 of ITT)
8. It is to inform that tender containing any deviation from contractual terms and conditions, specifications and other requirements; save as provided for in the "Instructions to Tenderers" shall be considered as non-responsive and shall be liable for rejection.
9. Late tenders (received after the due date and time of submission of bid) shall not be accepted under any circumstances.
10. Tenders shall be valid for a period of 120 days from the latest date of submission of Tenders and shall be accompanied with a tender guarantee of the requisite amount in the form of a Bank Guarantee described in paragraph 4.2 of the Instructions to Tenderer.
11. Tender with duly complete documents in sealed envelopes shall be submitted to the office of the Bangalore Metro Rail Corporation Limited at the address given above.
12. BMRCL reserves the right to accept or reject the tender without assigning any reasons. Tenderer shall not have any cause of action or claim against BMRCL for rejection of his Tender.

S/d



**Chief Electrical Engineer (Traction) – Phase II
Bangalore Metro Rail Corporation Ltd,**

QUALIFYING REQUIREMENTS

Eligibility Criteria

The qualifying requirements are as under:

BMRCL intends to invite Tenders from qualified Indian and International Consultants or group of experienced consultancy firms i.e. Joint venture/consortium called Group, having experience and proven track record in providing Detailed Design/Design Review Consultancy Services for Power supply & Distribution system, 750 V DC Third rail traction electrification and SCADA system for Reach-5 & Reach-6 of Bangalore Metro Rail Project Phase II. As described in tender No.EPDD-3 for Phase-2 of Bangalore Metro Rail Project, herein after referred to as "applicant/DDC/Group".

- I. Tenderer may apply either as an individual or as a partnership/joint venture / consortium, registered under Indian partnership Act or a company registered under provision of companies Act 1956(in case of Foreign Company, it should be registered / incorporated under relevant legislation and certificate of incorporation shall be furnished. It shall also enclose all required approval / permissions from RBI/FEMA) or in Joint Venture or Consortium here in after referred to as "Group". Further, No individual firm will be a member of more than one Group.
- II. The number of constituents (in JV or Consortium) shall be limited to a maximum of THREE, out of which at least one member should have simulation software of its own (the applicant should either have in-house simulation facility or have an understanding with a firm having such facility. A Proposal in this regard should be submitted in the bid) and other member(s) should have experience in Detailed Design/Design Review Consultancy Services for Power supply & Distribution system, 750 V DC or above Third rail traction electrification and SCADA systems. The member(s) should have been a Detailed Design/Design Review Consultant to minimum two metro projects.
- III. The applicant should have rendered services in Detailed Design/Design Review Consultancy Services for Power supply & Distribution system, 750 V DC or above Third rail traction electrification and SCADA system as per criteria set out in Para VII and IX below :
- IV. The Tenderer shall have proven track record in Detailed Design/Design Review and related services for Traction and Power Distribution System, 750 V DC or above Third Rail Traction Electrification and SCADA & Digital Protection system ,including traction simulation and Load flow Study for Elevated and Underground Metro sections and Depots, with fully developed "State of the art" in-house design capabilities. The Tenderer must satisfy the eligibility criteria stated below for further evaluation and selection.
- V. International firm/group shall have Indian Partner(s) as in I above, who have experience in appropriate discipline in executing the Detailed Design/Design Review Consultancy Services. Foreign company/Foreign individual should have been authorized to carry out business in India and relevant certificate of incorporation shall be furnished.
- VI. In case of Foreign Company, it should be registered / incorporated under relevant legislation and certificate of incorporation shall be furnished.
- VII. The Tenderer as a whole must have a minimum cumulative turnover of INR 10 Cr (INR 100 million / US\$ 1.85 million) over last three years, from Detail design/ Design review consultancy services (The Three years shall be 01.04.2012-31.03.2013, 01.04.2013-31.03.2014 and 01.04.2014-31.03.2015).
- VIII. In case of consortium, the Lead Member should meet minimum 60 per cent of the above mentioned financial eligibility criteria and combined with other member of the consortium



should meet the complete 100 per cent financial eligibility criteria of minimum cumulative turn-over of last three years..

IX. Application must contain the following details and documents :-

- a. Name, address (Including telephone nos./fax nos./ email address etc.) & registration details of the Tenderer with names of Proprietors, Directors and Company Profile of Consultant - (Annexure- 1)
- b. Name, address including telephone nos../ fax nos., email address etc. of the contact person i.e. Company Profile of Consultant / Member of consortium/ JV -(Annexure- 1).
- c. Previous Experience/Qualifying Experience (Annexure- 2 & 3).
- d. Copy of the audited balance sheet of the firm for last 5 years and information duly filled up as per Annexure- 4.
- e. Copy of annual report of the firm for last 5 years.
- f. Annual turnover of the Tenderers (All the members in case consortium / Joint venture) 'Design Consultancy/design Review Services only' duly notarised for the last 3 years. (Annexure- 5).
- g. Present work load percent progress made (to be given for Five Design consultancy/Design Review contracts in descending order of contract values).
- h. Proposed Organisation Chart and Key personnel proposed along to be engaged in this work with their qualifications and experience details. Proposed Key personnel in each area and interfacing personnel must satisfy the requirements as detailed in (Annexure- 6& 7) and
 - Should be an employee of the firm for a period not less than 6 months
 - The proposed Project Leader for providing consultancy services must have experience in Detailed Design/design Review/execution of similar metro railway/Monorail project.
 - Details of the Key staff proposed to be engaged shall be enclosed.
- i. Software capabilities for handling various elements of the services.
- j. Details of offices in India along with the details of consultancy works carried out in India(including other than Metro) (Annexure- 1).
- k. In case of JV/Consortium, each member shall be thereof jointly and severally responsible for whole performance of the contract obligation and MOU shall clearly indicate roll and responsibility of each member besides Clause relating to jointly and severely responsible. In case the contract is awarded to JV/Consortium a single performance guarantee from lead member may be submitted on behalf of the group (Annexure 1).
- l. Bankers / Banking References (Annexure 1).
- m. Any other details to demonstrate the Tenderer's relevant capability.
- n. Software and computer infrastructure capability (each member of the group) (Annexure 8)

- o. Certificate for non engagement of middlemen (Annexure 9).
 - p. Bids /offers from firms /companies /associates/JV/consortiums etc. who have history of litigation/arbitration shall not be considered.
 - q. Verification Statement (Annexure 9).
 - r. Tenderer's declaration (Annexure 10).
 - s. Tenderer's undertaking (Annexure 11)
 - t. Tenderers not furnishing complete & precise information asked in the annexure or otherwise are liable to be rejected.
- X. Technical ,Organisational, Detailed Design/Design Review Capability and Experience record:

The scope of work in the tender involves detailed designs, drawing and technical specifications as given in Appendix-A (Scope of the Work) Vol-I of the tender document. The major areas of the detailed design are summarised as following:-

- 750 V DC Third Rail Traction Electrification System.
- Power Supply and Distribution System:
 - 66/33kV Receiving Substation
 - 33kV / 750V dc Traction Substations (Indoor type), 33kV / 415V AC Auxiliary Substations (Indoor type), HT/LT cabling and Metering and summation metering etc.
 - Traction Simulation Study: Maximum Traction Power demand, Positioning of RSS and TSS, Power Transformers, Traction transformer-rectifier set and other power equipment's dimensioning DC circuit breaker dimensioning, Negative voltage evaluation, Voltage drop evaluation
 - EMI, EMC, Stray Current Study and their management and Earthing & Bonding system design: Frequency (harmonics) induced voltage management, Earthing and Bonding system including protection against DC Traction stray currents management.
- SCADA System: SCADA system design for Remote Operation , control and data management of power supply, Asset management ,Control , monitoring and Digital Protection of Power and 750V dc Traction system compatible with SCADA system

Accordingly, the tenderer is required to submit their design/design review experience of the above major areas, of having designed / reviewed the design at least the following.

- i. The consortium or its members individually or jointly as member of other consortia in their respective roles carried out design/design review of minimum 30 track kms of 750V DC or above Third Rail Traction Electrification on viaduct/long bridges/underground section including Railway depot workshop on a Metro Rail System in last seven years ending 31st March 2015 . The above information should be submitted project-wise as per Annexure 1.
- ii. The consortium or its members individually or jointly as member of other consortia in their respective roles carried out design/design review of at least two no. of

66 KV or above voltage Receiving Substations on underground / elevated Metro Rail System or Suburban Rail System/Monorail system in last seven years ending 31st March 2015. The above information should be submitted project-wise as per Annexure 1.

- iii. The consortium or its members individually or jointly as member of other consortia in their respective roles carried out design of at least 10 numbers of indoor type 33 kV (or 24 or 22 or 11 kV)/ 750 V dc or 1500V dc traction substations and 33kV (or 24 or 22 or 11 kV)/415V ac auxiliary power sub-stations on underground / elevated Metro Rail System or Suburban Rail System or Monorail system in last seven years ending 31st March 2015. It is desirable that the applicant has done minimum two no. of Load Flow Traction Simulation Studies on underground/elevated Metro Rail System or Suburban Rail System in last seven years ending 31st March 2015. The above information should be submitted project-wise as per Annexure 1.
- iv. The consortium or its members individually or jointly as member of other consortium in their respective roles carried out design/design review of at least two SCADA works for traction/auxiliary power supply on underground/elevated Metro Rail System or Suburban Rail System/Monorail system. The above information should be submitted project-wise as per Annexure 1.

Note:

- a. In case of Joint Venture/ Group / Consortium, for the criteria at Sl. No. i, ii, iii and iv above, the evaluation will be carried out in totality. However it is to be noted that the minimum qualification criteria for each subsystem will be considered for each individual member of the consortium in their respective roles of design. For example in a consortium, if Member A has been assigned the role of design/design review of subsystem, as indicated in ii, then it should have completed minimum design works during last 7 years as indicated in ii i.e. it must have completed design of at least 2 numbers. of 66 KV or above voltage Receiving Substations on underground / elevated sections of Metro Rail System or suburban Rail system or Monorail system in the preceding seven years ending 31st March 2015.
- b. Tenderers will submit necessary documents/ certificates in this regard. Client reference and certificate must also be enclosed in support of the claim.

XI. Financial capability

- i. Liquidity and Banking reference: This information will be seen from financial information submitted in Initial Filter Questionnaire as extracted from the balance sheets/annual statements and from the banking reference submitted by the tenderer. The tenderer should note that the above statement should be counter signed by the CA/Auditor of the firm. The documents including banking reference should show that the tenderer has access to or has available liquid assets, lines of credit and other financial means to meet cash flow of INR 100 Lakhs (INR 10 million / US\$ 0.16 million) for this contract, net of tenderer's commitments for other contract.

Note: 'Design' appearing in these documents means 'detailed design'.