



DELHI METRO RAIL CORPORATION LTD.

TENDER NO. DMRC-ELECT-PCA-LINE-2

Power consumption assessment of DMRC for its Yellow Line-2 of 49 route kms having 17 no. of elevated and 20 no. of underground stations in the section Badli – HUDA City Centre (Gurgaon)

TENDER DOCUMENTS

OCTOBER 2011

CONTENTS OF TENDER DOCUMENTS

1.	LETTER INVITING TENDER.....	3
2.	INSTRUCTIONS TO TENDERERS (ITT).....	5
3.	TERMS OF REFERENCE (TOR).....	12
4.	FORM OF AGREEMENT.....	19

LETTER INVITING TENDER

DMRC/O&M/Power consumption/L-2

Dated:

FROM

Executive Director (Electrical),
Delhi Metro Rail Corporation Ltd.
7th Floor, B-wing, Metro Bhawan,
Fire Brigade Lane, Barakhamba Road,
New Delhi – 110 001
Tele-fax no--91-11-23417920
Email-Id: - sharatsharma@dmrc.org

TO

(Kind Attention: -)

Sub: Tender No - DMRC-ELECT-PCA-LINE-2 :- “Power Consumption Assessment of DMRC for its yellow line-2 of 49 route kms having 17 nos. of Elevated and 20 nos. of Underground stations in the section Badli - HUDA City centre (Gurgaon)”.

Dear Sir,

1. Subsequent to your submission of Expression of Interest, for above subject work, Delhi Metro Rail Corporation limited (DMRC) intends to invite tenders to appoint a Consultant for above work with a view to validate the adequacy of the system and identify any further recommendations necessary to be taken by the system operator, DMRC, to operate particular railways under specified conditions.
2. The detailed Terms of Reference (TOR) including the scope of work and other conditions are described in Tender documents.
3. The copies of tender documents can be purchased on payment of a non-refundable fees of Indian Rupees 5250/- (including DVAT @ 5%). Payment may be made only by bank Draft, drawn on a schedule commercial bank based in India, in favour of “Delhi Metro Rail Corporation Limited” payable at New Delhi.

4. Two copies of tender documents will be issued from the office of :-
Executive Director (Electrical),
Delhi Metro Rail Corporation Ltd.
7th Floor, B-wing Metro Bhawan,
Fire Brigade Lane, Barakhamba Road,
New Delhi – 110 001
Between 1000 hrs to 1700 hrs from **24th October 2011 to 31st October 2011**
5. Alternatively, tender documents can be downloaded from DMRC website www.delhimetrorail.com and the fees for tender documents can be submitted along with tender submission.
6. Duly filled tenders shall be returned to the Executive Director/Electrical, DMRC at the address given above not later than **1500 hours on 14th November 2011**. The Tender offers shall be opened at 1530 hours on 14th November 2011, in the presence of the bidders or their authorized representatives who chose to be present.
7. Please note carefully the requirements for submitting tenders, and the date and time for submittal. "Late" and "delayed" tenders will not be accepted.
8. Tenders shall be valid for a period of 60 days from the date of submission of Tenders.
9. The time period of completion is 45 days from the date of issue of Letter of Acceptance.
10. In this connection, the bidders in their technical proposal should describe in detail, the work to be performed together with a Bar Chart Schedule for these activities and submit/provide the following relevant details/ information/ credentials to be considered eligible for financial scrutiny:
 - i. Provide documentary evidence of being an organization capable of doing an independent Simulation study of power supply of MRTS System to operate particular railways under specified conditions with Experts (CV Should be submitted with the return of tender) available with the organization for the same.
 - ii. A comprehensive listing of similar works so certified by Organization/Experts;
 - iii. Sample reports produced for the similar study. The bidder is required to give his 'fixed Price offer' in Indian Rupees and/or freely convertible international trading currencies.
11. All Indian taxes will be paid by DMRC. All offshore taxes shall be borne by the Consultant.
12. For any instrumentation to be imported into India, the consultant will be required to provide assurance to Indian Customs Department that such equipment will be re-exported with a reasonable time frame so as to avoid Import duties. The bidders are advised to contact Indian Customs Department to ascertain the particular requirements.

**Executive Director/Electrical
Delhi Metro Rail Corporation Ltd.**

INSTRUCTIONS TO TENDERERS (ITT)

Contract No: - DMRC-ELECT-PCA-LINE-2

Contract- DMRC-ELECT-PCA-LINE-2:- “Power consumption assessment of DMRC for its Yellow line-2 of 49 route kms having 17 no of elevated and 20 no. of underground stations in the section Badli-Huda City Centre (Gurgaon)”

1. PROPOSAL

- 1.1 The DMRC is Inviting Tenders for Contract no. DMRC-ELECT-PCA-LINE-2 “Power consumption assessment of DMRC for its Yellow line-2 of 49 route kms having 17 no of elevated and 20 no. of underground stations in the section Badli-Huda City Centre (Gurgaon)”
- 1.2 Not used.
- 1.3 Your proposal should clearly state that all the group members in a joint venture; consortium or partnership will be jointly and severally responsible for the performance under the consulting services contract. It should also state which member of the joint venture; consortium or partnership will be acting as lead member on behalf of the joint venture, consortium or partnership in all its relations and communications with DMRC.
- 1.4 A detailed Memorandum of Understanding (MOU) between the members of the joint venture, consortium or partnership stating the inter-relationship and division of work between the members should be submitted along with the tender for examination by DMRC. Powers of Attorney from each member shall authorise the lead member to submit the tender and to negotiate the proposal on their behalf.
- 1.5 It should be noted that if any member of the group combines the functions of a consultant or designer with those of a contractor and/or manufacturer, all relevant information must be provided regarding such relationship, along with an undertaking to the effect that the members agree to limit their role to that of a consultant and/or designer to DMRC and to disassociate themselves, their associates/affiliates and/or parent firm from work in any other capacity (including tendering relating to any goods or services for any part of this work) on this work other than that of consultant and/or designer to DMRC till completion of this work.

- 1.6 If, in connection with the performance of the consulting services, any group member intends to borrow, hire temporarily, personnel from contractors, manufacturers or suppliers, he must include in his proposal all relevant information about such personnel. In such case, he will be acceptable only if those contractors, manufacturers, and suppliers disassociate themselves from this work (including tendering relating to any goods or services for any other part of this work) other than that of consultant.
- 1.7 Each Tenderer, or any associate will be required to confirm and declare in the Tender submittal that no agent, middleman or any intermediary has been, or will be, engaged to provide any services, or any other items of work related to the award and performance of this Contract. They will have to further confirm and declare in the submittal that no agency commission or any payment which may be construed as an agency commission has been, or will be paid and that the tender price will not include any such amount.
- 1.8 Each tenderer will be required to submit an undertaking that they have not been removed from any work due to non non-performance of design consultancy contract in the last 10 years. The period of 10 years shall be reckoned prior to the date of bid submission.
- 1.9 Tenderers shall not have a conflict of interest. All Tenderers found to have a conflict of interest in this tender process shall be disqualified. Tenderers shall be considered to have a conflict of interest, if:
- a) One firm applies for tender both as an individual firm and in a Group.
 - b) If Tenderers in two different applications have controlling shareholders in common.
 - c) Submit more than one application in this tender process either as an individual firm or in a Group

2. TECHNICAL PROPOSAL

- 2.1 TECHNICAL PROPOSAL will comprise:
- Attested copy of Power of Attorney to submit Tender,
 - Power of Attorney from each member, in case of joint venture
 - The Memorandum of Understanding MOU (See Clause 1.3 and 1.4) for the consortium or joint venture in case of more than one member, and
- 2.2 The Technical Proposal should cover in detail the following:-

- Understanding and comprehension of the work involved.
- The general approach and methodology proposed for carrying out the services covered in the Scope of Work, including such detailed information as deemed relevant.
- A detailed overall work programme and a bar chart indicating the duration and timing of assignment of each staff or other staff member assigned to the project.
- An organisation chart together with clear description of the responsibilities of each staff member within the overall work programme.
- A task list of deliverables and delivery dates, and the person responsible for performing the deliverable.
- The name, background and professional experience of each staff member to be assigned to the project, with particular reference to his experience of a nature similar to that of the proposed assignment. The majority of the staff shall be regular members of the firm for at least six months.
- The details of the name, background and CV of any sub-contracted staff along with their consent letter who will be employed on the project.
- The names and addresses of any firm who may be given sub-contracts together with details of their experience.
- The details of equipment and facilities with such subcontractors.
- Details of design facilities, together with their location.
- Details of office in India (if, any)
- The project team proposed.
- Previous work experience details.

Offer should cover the entire Scope of Work.

3. FINANCIAL PROPOSAL

3.1 FINANCIAL PROPOSAL will comprise the Financial Offer and Tax certificates.

3.2 The Lump Sum prices should include all costs associated with the contract. These will cover remuneration for staff, transportation, equipment, printing of documents, surveys, etc.

- 3.3 The Lump Sum price will include all royalties, duties, fees, cess, octroi, other levies etc and any tax to be deducted at source and the cost of insurance related to this contract.
- 3.4 All offshore taxes shall be borne by the Consultant, and all Indian taxes including service tax, will be reimbursed to the CONSULTANT on submission of documentary proof of evidence of payment to Government agencies.
- 3.5 The bidder is required to give his 'fixed Price offer' in Indian Rupees and/or freely convertible international trading currencies..
- 3.6 All payments shall be subject to deduction of tax at source in accordance with the provisions of the Indian Income Tax Acts and any other applicable law.
- 3.7 The Financial Package shall contain an attested photocopy of the latest Income Tax clearance certificate (ITCC) in the required pro-forma of the Government of India. For foreign based consultants a suitable certified similar document from their country of origin, or a certified statement from their auditors stating that Income Tax / Corporation Tax has been paid will be accepted.

4. PERIOD OF VALIDITY OF PROPOSAL

- 4.1 The offer submitted by the tenderer shall be valid for a period of 60 days from the last date of submission of the tender, with a provision that it will be suitably extended on request of DMRC.

5. SUBMITTAL OF TENDERS

- 5.1 Tender submittals comprising:

Power of Attorney to submit the Tender.

Technical Proposal and

Financial Proposal

Will be accepted by Executive Director/Electrical in the office of ED/Electrical, 7th Floor, B wing, Fire Brigade Lane, Barakhamba Road, New Delhi-110001.

between 09.00 hrs and 15.00 hrs the date mentioned in Letter Inviting Tender. **Late or delayed tenders will not be accepted under any circumstances.**

- 5.2 Each page of the technical and financial proposal shall be numbered, stamped and signed by the power of attorney to submit the tender

- 5.3 At 1530 hrs on the day of submittal of tenders the received tenders will be checked for completeness of submittal. The DMRC will open the tender submissions containing the "Technical Proposal" and "Financial proposal" in front of the Tenderers, who chose to be present.

6. EVALUATION OF PROPOSAL

6.1 Technical Proposal

The evaluation committee of DMRC will, keeping in view the contents of paragraph 2.2 above, carry out technical evaluation of submitted technical proposals to determine that the tenderer has a full comprehension of the work of the contract DMRC may seek clarifications from tenderer(s) during evaluation process, if necessary. Where a tenderer's technical submittal has major inadequacies his tender will be considered to be non-compliant and will be rejected. This process is to assure that only technically acceptable proposals will be considered.

The Employer will evaluate the technical suitability and acceptability of the proposals. The financial proposals of only those tenders that are technically compliant and substantially responsive will be evaluated.

6.2 Financial Proposal

Only technically acceptable tenders shall be eligible for evaluation of their Financial Proposals.

- 6.3 Lowest Evaluated Tenderer will be determined based on the comparison of their financial offers.

6.4 Conversion to Single Currency

The Foreign Currency portion of this tender will be converted into Indian Rupees at the Selling Rate of Exchange on the close of business of State Bank of India 28 days before the latest date of Tender Submittal.

- 6.5 In evaluating the tenders, the Employer will determine for each tender the Evaluated Tender Price by adjusting the tender price as follows

- a) making any appropriate adjustment for deviations with view of bringing various bidders at par, i.e. in full compliance of tender conditions;
- b) converting the amount resulting from applying a) above to Indian Rupees in accordance with clause 6.4;

- 6.6 If the tender, which results in the lowest Evaluated Tender Price, is seriously unbalanced or front loaded, the Employer may require the Tenderer to produce detailed price analysis, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed.
- 6.7 The Employer reserves the right to accept or reject any deviation. Deviations and other factors that are in excess of the requirements of the Tender Documents or otherwise result in the accrual of unsolicited benefits to the Employer shall not be taken into account in tender evaluation.

7 AWARD OF CONTRACT

- 7.1 The Employer will consider awarding the Contract to the Tenderer whose Tender has been determined to be substantially responsive to the Tender Documents and who has offered the Lowest Evaluated Tender Price, and whose offer is balanced in terms of paragraph 6.
- 7.2 DMRC is not bound to award the Contract to the lowest tenderer or to accept any tender and reserves its rights without incurring any liability to any tenderer. DMRC will not provide reasons for acceptance or rejection of any offer or part thereof.
- 7.3 DMRC will issue a Letter of Acceptance (LOA) to the successful tenderer after negotiations, if required, and the approval of the competent authority obtained. The issue of the Letter of Acceptance shall constitute the formation of the Contract, and the CONSULTANT shall commence work immediately thereafter.
- 7.4 Within seven days from the date of issue of the Letter of Acceptance, the successful tenderer will be required to execute the Contract Agreement for the Consultancy services.

8 ADDITIONAL INFORMATION

- 8.1 Every effort will be made to provide additional information to tenderers that has been requested in writing. However, requests for additional information, and any delay in providing information is entirely at tenderer's risk, and shall not be considered as a reason for late delivery of tenders or a reason for delaying the submission of tenders by the stated date.
- 8.2 Any information provided by DMRC that is not given in writing, in response to request for additional information, shall not be considered by DMRC and shall not be accepted as a reason for late delivery of tenders or a reason for

Tender No - DMRC-ELECT-PCA-LINE-2

delaying the submission of tenders by the stated date.

9 DATE OF COMPLETION

As per clause 8 of Terms of Reference (TOR).

10 TENDER PREPARATION COSTS

10.1 Any costs associated with the preparation of the Proposal by any tenderer will not be reimbursed.

11 REJECTION OF TENDERS

11.1 DMRC may reject the tenders that are considered to be substantially non-responsive to the requirements of the Proposal. Such matters may include:

- Incorrect or Fraudulent Power of Attorney
- Qualifications relating to the Proposal
- Deviations relating to the Scope of Work
- Incomplete Technical Proposal
- Major inadequacies in the technical offer
- Tenderer requires an increase in Tender Offer price during negotiations
- Failure to sign the Contract

TERMS OF REFERENCE (TOR)

TABLE OF CONTENTS

1. INTRODUCTION	13
2. SCOPE OF WORKS	14
3. EXCLUSIONS	16
4. DELIEVERABLES.....	16
5. RESOURCE USAGE.....	17
6. PRICE	17
7. VALIDITY	17
8. TIME PERIOD OF COMPLETION	18
9. PAYMENT SCHEDULE.....	18

TERMS OF REFERENCE (TOR)

Power consumption assessment of DMRC for its Yellow Line-2 of 49 route kms having 17 no. of elevated and 20 no. of underground stations in the section Badli–HUDA City Centre (Gurgaon)

1. INTRODUCTION

DMRC is having a network of 189.63 route kms distributed over 6 lines having 109 no. of elevated and 28 no. of underground stations. A schematic diagram is enclosed at Annexure-1.

The yellow Line-2 of DMRC has been constructed in Phases and therefore, the sub-station capacities Receiving Sub-stations of initial sections were planned on stand-alone basis as the expansion at that point of time could not be envisaged.

The location and chainage of the 4 RSS's on this line is marked on the enclosed schematic diagram.

DMRC Line 2 runs for 49 route Kms from North to South of the city, has 37 stations (17 nos of elevated and 20 nos of underground), connecting Badli with HUDA City Centre. The northern and southern parts of the line are elevated, while the central section is underground (between stations G.T.B Nagar and Saket and a length of around 23 Km and 20 stops).

There are 2 types of Rolling Stock with 60 trains running along the line.

The line is electrified with the 25 KV system, having Traction Substations at various locations for section between stations Badli and HUDA City Centre on Line 2.

Power Consumption Assessment should be developed for the entire (underground and elevated) stretch of Line 2, that is, between stations Badli and HUDA City Centre, with a total length under study of around 49.43 Km and 37 stops.

Out of above, Badli to Jahangirpuri station of elevated corridor, having length of 4.49 km and 3 stations is under construction and is yet to be commissioned.

2. SCOPE OF WORKS

- 2.1. DMRC desires to get the simulation study done on limited tender basis identifying the following parameters:-
- 2.2. Power consumption is to be assessed for under normal conditions and under feed extended conditions when supply of adjacent substation is disrupted.
 - (i) Underground stretch of DMRC section of Line-2
 - (ii) Entire Line-2 including underground as well as elevated sections combined.
- 2.3. Measuring / calculation of impedance for underground and elevated sections separately, considering scenario whether supply is given mid-way say at Chattarpur station.
- 2.4. Restrictions and predictions considering the following scenarios: -

Scenario-1:- Whether out of 4 sub-stations, if any of the 2 sub-stations are nonfunctional and remaining two sub-stations are functional, how to optimize the commuter services.

Scenario-2:- Whether out of 4 sub-stations, if any of the 3 sub-stations are nonfunctional and remaining one sub-station is functional, how to optimize the commuter services.
- 2.5. The study is to be carried out for present scenario, 8 coach trains running with 2.5 minutes headway and for the ultimate design capacity of 8 coach trains running at the 90 seconds headway.
- 2.6. Develop a programme / mathematical module for calculation of power under different scenario as the train services progressively get introduced.
- 2.7. Keeping in view that in this given line, the parameters like track characteristics, terrain of the section, rolling stock characteristics are fixed and the variable parameters such as train headway, circulation time, speed, tunnel dimensions etc. are variable. The sensitivity with regard to these parameters could be checked from this module. To optimize the consumption of power generated by regenerating braking of trains, the net input power requirements in staggered headway of trains in Up and Down lines could be checked from this module.
- 2.8. In addition to above the simulations and results expected from this study are explained below. The consultant, however, can list out items not covered in their proposal and any other additional parameters can also be listed out.

2.8.1. Dynamic simulation of the train running along the stretch under study for the 2 types of rolling stock which run in Line 2. The following parameters are expected.

- Circulation time
- Average speed (maximum speed along the line at 75 Km/h)
- Percentage of time Coasting (from 60 km/h)
- Energy consumption as a ratio KWh/GTKM, Keeping into consideration of the regenerative braking of trains.

Also instantaneous values of these parameters in each point of the line, showing the results in graphics with respect to the chainage.

2.8.2. Comparison of Power Consumption in the line for different Train Graphs: varying the headway between trains and the composition of these ones, results of Energy Consumption (measured in Kwh/GTKM).

2.8.3. Variation of Power Consumption with number of Stops in the stretch under study: defining the route according to the number of stations per Km indicated by DMRC, results of Energy Consumption (Kwh/GTKM) in the line.

2.8.4. Loading pattern (nominal power in KVA) on the Traction Substations Transformers for the train graphs (headway and type of trains). Instantaneous, Average and RMS Power to be given for each transformer.

2.8.5. Voltage in train pantographs per instant of time to be given for the train graphs proposed.

2.8.6. This study to include the following updates and improvements:

2.8.6.1. Simulations varying the Peak Hour Passenger Traffic from 0 to 1500 taking an interval of 25 % to be realized, giving the power consumption for each simulated case.

2.8.6.2. Simulation of Power Consumption of a running train taking into account for Auxiliary Energy Consumption of the Train with and without Air Conditioning.

2.8.6.3. Simulation of several scenarios be realized, so that optimal (with respect to the energy consumption) loading of Substations is obtained.

2.8.6.4. Simulation of running trains to get the power and energy consumptions for several stretches of tunnel sections (rectangular, circular, other dimensions) can be realized.

2.8.6.5. Simulations of different types of rolling stock (being used in DMRC) can be realized to get a comparison of running time, speed profiles and power and energy consumptions (Kwh/GTKm).

2.9. **Input Data:** - The Input Data parameters needed to realize the study to be specified by the tenderer in their technical offer.

3. EXCLUSIONS

There are no exclusions; the Consultant is expected to provide a professional independent assessment of the Power supply system.

4. DELIEVERABLES

In order to comply with the requirements of this enquiry, the Consultant shall submit to DMRC the following deliverables:

- 4.1. Provision of a resource loaded programme of work, detailing delivery dates and progress of work measured against tasks specified above. A copy of this programme shall accompany the return of tender.
- 4.2. Provision of two weekly brief progress reports. This shall commence on contract award
- 4.3. Supply four draft copies of interim reports for DMRC comments.
- 4.4. Make a power point presentation of the findings and recommendations.
- 4.5. Supply four final copies of prints and one CD electronic copy on Microsoft office -word document.
- 4.6. All the complete documentation of the study, including a complete report in A4 format with the results obtained in all the simulations. The graphics should be printed in A3 format.
- 4.7. For each completed simulated alternative the results and graphics presented to be:-
 - Running Train Simulation:
 - Running Time, Average Speed and Energy Consumption

(kWh/GTKm)

- Speed, acceleration and power consumption profiles
 - Circulation Train Graph
 - Power of Traction Substations:
 - Maximum, Average and RMS Power values
 - Graphics of power values per instant of time
 - Percentage of overload on each TSS transformer
 - Voltage drops in catenary:
 - Maximum, medium and minimum value of voltage along the catenary
 - Graphics of train pantograph voltages along the route
- 4.8. This report should be delivered in digital format Word File. The lists of results should be presented in Excel Files.
- 4.9. All the documentation should be delivered in English.

5. RESOURCE USAGE

The Consultant is required to ensure that all Experts selected for undertaking the work specified in this enquiry are fully acquainted with the concept of 25kV AC R-OCS/flexible OHE and Traction sub-stations. Experts CV's should be submitted with the return of tender.

6. PRICE

The Consultant shall provide fixed price offer to undertake all the above activities.

7. VALIDITY

The quoted price shall be valid for 60 working days without escalation.

8. TIME PERIOD OF COMPLETION

The above work is required to be completed and delivered within 45 days of date of Issue of Letter of Acceptance as per the schedule given below. This date shall be shown on the Consultants programme.

S. No.	DESCRIPTION	DATE OF COMPLETION
1.	Submission of Interim Draft Report highlighting initial findings and recommendations	30 days from the date of issue of Letter of acceptance
2.	Submission of Final Audit Report	45 days from the date of issue of Letter of acceptance

9. PAYMENT SCHEDULE

The Payment to the Consultant shall be made in the currencies quoted as follows:

S. No.	DESCRIPTION	PAYMENT SCHEDULE
1.	Submission of Interim Draft Report highlighting initial findings and recommendations and its acceptance by DMRC.	30% of the contract value
2.	Submission of Final Audit Report and its acceptance by DMRC.	Balance 70% of the contract value

FORM OF AGREEMENT

This Agreement is made at New Delhi on day of (month & year) by and between:

(1) Delhi Metro Rail Corporation Limited, with office located at Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi 110 001, hereinafter referred to as the “DMRC” or the “Employer”, as the case may be, of the one part, and;

(2)(Name of Consultant) [Note 1] comprising:

a), a company registered and existing under the laws of, with head office located at, represented by Mr. and Mr. authorised to sign and bind the company, under the Power of Attorney dated and the Board Resolution dated [Note 5]

b), a company registered and existing under the laws of, with head office located at, represented by Mr. and Mr. authorised to sign and bind the company, under the Power of Attorney dated and the Board Resolution dated [Note 5]

c), a company registered and existing under the laws of, with head office located at, represented by Mr. and Mr. authorised to sign and bind the company, under the Power of Attorney dated and the Board Resolution dated [Note 5]

[Note 2] who shall be jointly and severally liable for the undertaking of this contract;

hereinafter [Note 3] collectively referred to as the “Consultant” of the other

part.

WHEREAS the Consultant has established a [Note 4] in accordance with Indian law and offered a tender for the **Contract No - DMRC-ELECT-PCA-LINE-2:- “Power Consumption Assessment of DMRC for its yellow line-2 of 49 route kms having 17 nos. of Elevated and 20 nos. of Underground stations in the section Badli - HUDA City centre (Gurgaon)”** as mentioned in contract documents and agrees to undertake performance thereof under the terms and conditions set forth in this Contract.

Both parties hereby agree as follows:

Clause 1

DMRC agrees to hire and the Consultant agrees to be hired to implement the **Contract No - DMRC-ELECT-PCA-LINE-2:- “Power Consumption Assessment of DMRC for its yellow line-2 of 49 route kms having 17 nos. of Elevated and 20 nos. of Underground stations in the section Badli - HUDA City centre (Gurgaon)”**

under the terms and conditions specified in this Contract Agreement and the other Contract Documents attached hereto as follows:

1. The Letter of Acceptance (LOA);
2. Tender Documents comprise of the following :-
 - Notice Inviting Tender
 - Instructions to Tenderers
 - General Conditions of Contract (GCC)
 - Special Conditions of Contract (SCC)
 - Appendix A-Scope of work
 - Appendix B-Remuneration and Payment.
 - Appendix C-Pro-Forma
 - Appendix D-Design Criteria
 - Appendix E-Technical Proposal of Tender
 - Appendix F-Minutes of negotiation meetings and relevant correspondence

- Reference Drawings, if any

All of the foregoing documents, together with this Contract Agreement, are referred to herein as the Contract Documents. Also incorporated into these Contract Documents, and made part hereof, are all codes, standard specifications, and similar requirements that are referred to therein. In the event of a conflict, ambiguity or discrepancy between the contents of the Contract Documents, the order of precedence shall be according to the General Conditions of Contract.

Clause 2 – Obligation of the Consultant:

The Consultant agrees, subject to the terms and conditions of the Contract Documents, to perform efficiently and faithfully all of the works of design and consultant Contract No - **DMRC-ELECT-PCA-LINE-2:- “Power Consumption Assessment of DMRC for its yellow line-2 of 49 route kms having 17 nos. of Elevated and 20 nos. of Underground stations in the section Badli - HUDA City centre (Gurgaon)” and other Design consultancy services necessary for or** incidental to the successful completion of the Works and in carrying out all duties and obligations imposed by the Contract Documents.

Clause 3 – Obligation of the Employer:

The Employer agrees, subject to the terms and conditions of the Contract Documents, to pay the Consultant the amount specified, and at the rates and terms and in the manner set forth in the Contract Documents.

Clause 4 – Value of Services and Completion Time:

The Employer agrees to pay for the total cost of the Works and the Consultant agrees to accept the sums mentioned below in the following currencies, to be the total cost for the Service carried out by them as part of their obligations, responsibilities and liabilities under and according to the provisions and obligations imposed on him by the Contract.

Fixed Lump Sum Price of:

Rupees (in words)

.....

Rupees (in figures)

.....

Tender No - DMRC-ELECT-PCA-LINE-2
subject to adjustment in accordance with the provisions of GCC.

The above amounts include all taxes, royalties, duties, fees, cess, octroi, other levies etc. and any tax to be deducted at source excluding Service Tax.

The Consultant shall complete the Works within days / weeks from the Date of commencement.

Clause 5 – Notices:

All notices called for by the terms of the Contract Documents shall be in writing in the English language and shall be delivered by hand or by registered mail, acknowledgement due, to the parties' addresses given below. All notices shall be deemed to be duly made when received by the party to whom it is addressed at the following addresses or such other addresses as such party may subsequently notify to the other:

Employer Delhi Metro Rail Corporation Limited
Metro Bhawan, Fire Brigade Lane, Barakhamba Road,
New Delhi 110001, India.

Consultant
.....
.....

Clause 6 – Integration

The Employer and the Consultant agree that this Contract Agreement, together with the other Contract Documents, expresses all of the agreements, understandings, promises, and covenants of the parties, and that it integrates, combines, and supersedes all prior and contemporaneous negotiations, understandings, and agreements, whether written or oral and that no modification or alteration of the Contract Documents shall be valid or binding on either party, unless expressed in writing and executed with the same formality as this Contract Agreement, except as may otherwise be specifically provided in the Contract Documents.

Clause 7 – Governing Law

This Contract is enforceable and construed under the laws of the Republic of India.

Clause 8 – Language

This Contract Agreement and the other Contract Documents are made in the English language.

Clause 9 – Jurisdiction of Court

The Courts at Delhi/ New Delhi shall have the exclusive jurisdiction to try all disputes arising out of this agreement between the parties.

DMRC, the Employer

Delhi Metro Rail Corporation Limited

[Note 6]....., **The Consultant**

(a)

.....

(.....)

WITNESS

(b)

.....

(.....)

(.....)

(c)

.....

(.....)

WITNESS

(.....)

Notes: (for preparation of but not for inclusion in the engrossment of the Contract Agreement)

1. If the Consultant comprises a partnership, consortium or joint venture, liability will be joint and several, and each member thereof must be identified.
2. In the case that the Consultant comprises a single company, this line should be deleted entirely, as also should be paragraphs (b) and (c) above.
3. In the case that the Consultant comprises a single company, the word “collectively” should be deleted from this line.
4. Enter the appropriate nature of the Consultant; company, partnership, consortium or joint venture as the case may be.
5. Enter the date of the appropriate resolution.
6. If the Consultant comprises a partnership, consortium or joint venture, each member thereof must execute.