



UTTAR PRADESH METRO RAIL CORPORATION LIMITED

Design, Manufacture, Supply, Installation, Testing and Commissioning of retrofit Emission Control system on existing DG sets suitable for 160 KVA & 1010 KVA DG sets at UPMRC Metro stations. (Sachivalaya and KD Singh Stadium), Lucknow (U.P.)

CONTRACT : UPMRC/DG / Emission Control/01

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Section-I
NOTICE INVITING LIMITED TENDER

1.1. General

Uttar Pradesh Metro Rail Corporation Limited (UPMRC) invites sealed tender on single packet system basis for “Design, Manufacture, Supply, Installation, Testing and Commissioning of Emission Control Device on existing DG sets suitable for 160 KVA & 1010 KVA DG sets at Metro stations for 2 stations (1 Elevated & underground) of N-S corridor of Lucknow Metro” on limited tender basis. The detailed scope of the work and site information is provided in Section-II of the tender document.

1.2. Key Details:

Cost of tender Document	: Nil
Completion Period for the work	: 4 Months
Last Date & Time for submission of sealed tender	: 29.09.2020 at 17:30 Hrs
Date & Time for opening of tender	: 30.09.2020 at 11:30 Hrs

1.3. Points to be noted

- 1.3.1. Works envisaged under this contract are required to be completed in all respects within the period of completion mentioned above.
- 1.3.2. The bidder may obtain further information/ clarification, if any, in respect of these tender documents from the Office of Chief Electrical Engineer Project-1, Uttar Pradesh Metro Rail Corporation Limited , Administrative Building, Vipin Khand, Gomti Nagar, Lucknow-226010 (Email:- pawanyashi2006@gmail.com).
- 1.3.3. Tenderer is cautioned that the tender containing any material deviation from the tender document which consists of NIT, Scope of Work, Bill of quantities is liable to be summarily rejected as non-responsive.
- 1.3.4. Late tenders (received after date and time of submission of bid) shall not be accepted under any circumstances.
- 1.3.5. Authorised representative of tenderer may attend opening of tender.
- 1.3.6. UPMRC reserves the right to accept or reject any or all proposals without assigning any reasons. No bidder shall have any cause of action or claim against the UPMRC for rejection of his proposal.

1.4. Instruction for Tenderer

- 1.4.1. Tender shall be prepared and submitted in accordance with the instructions given herein.
- 1.4.2. Relevant address for correspondence relating to this tender and place for submission of tender is given below:
Chief Electrical Engineer Project-1,
Uttar Pradesh Metro Rail Corporation Limited
Administrative Building, Vipin Khand, Gomti Nagar,
Lucknow-226010
Email: pawanyashi2006@gmail.com

- 1.4.3. The following documents will be required to be submitted by the tenderer along with the tender:
Certified copy of the PAN. No. under income Tax Act,
Certified copy of GST Registration Certificate
Cancel Cheque/ Bank A/c details containing the RTGS/NEFT details
One set of duly signed and stamp tender document

1.5. SITE VISIT

- 1.5.1. Any site information given in this tender document is for reference only. The tenderer is advised to visit and examine the Site of Works and its surroundings at his/ their cost and obtain all information that may be necessary for preparing the tender and entering into a contract.
- 1.5.2. The agency shall be deemed to have inspected the Site and its surroundings beforehand and taken into account all relevant factors pertaining to the site in preparation and submission of the Tender.

1.6. CONTENTS OF TENDER DOCUMENTS

- 1.6.1. The tenderer is expected to examine carefully all the contents of the tender documents including instructions, conditions, terms, specifications and take them fully into account before submitting his offer. Failure to comply with the requirements as detailed in these documents shall be at the own risk.

1.7. LANGUAGE OF TENDER

The tender prepared by the tenderer and all correspondence and documents relating to the tender exchanged between the tenderer and the Employer/Engineer shall be in the English language.

1.8. TENDER PRICES

- 1.8.1. The tenderer is required to quote his rates for all the items as per tender documents.
- 1.8.2. The tenderer shall keep the contents of his tender and rates quoted by him confidential.

1.9. CURRENCIES OF TENDER

Tender prices shall be quoted in Indian Rupees only.

1.10. TENDER VALIDITY

Tenders shall be valid for a period of 45 days (both days inclusive i.e. the date of submission of tender and the last date of period of validity of the tender) from the date of submission of Tenders.

Section-II
SCOPE OF WORK

2.1. GENERAL

Uttar Pradesh Metro Rail Corporation (UPMRC) Ltd. is a joint venture company of Govt of India and Govt of U.P. that operates Lucknow Metro Rail in Lucknow. Lucknow Metro Rail is a Mass Rapid Transit System serving the city of Lucknow, capital of Uttar Pradesh. The Lucknow Metro covers a distance of 22.87 km with 21 stations from CCS Airport to Munshi Pulia.

Uttar Pradesh Metro Rail Corporation Ltd (UPMRC) invites sealed tender in single packet on limited tender basis in prescribed Performa, as per description of work.

2.2. OBJECTIVES

To carry out Design, Manufacture, Supply, Installation, Testing and Commissioning of Emission Control Device on existing DG sets suitable for 160 KVA & 1010 KVA DG sets at Metro stations.

2.3. SCOPE OF WORK

2.3.1. The scope of work will cover the following area but not limited to:

2.3.1.1. Location

- a) One elevated Metro stations, K.D. Singh Babu Stadium, Lucknow
- b) One Underground Metro stations, Sachivalaya, Lucknow

2.3.1.2. Design, Manufacture, Supply, Installation, Testing and Commissioning of Emission Control Device on existing DG sets of Lucknow Metro existing stations, suitable for 160 KVA & 1010 KVA DG sets consisting of followings

2.3.1.2.1. Retro fit emission control system for DG set should be type tested and certified from the following CPCB approved labs:-

- i. Automotive Research Association of India, Pune (Maharashtra)
- ii. International Centre of Automotive Technology, Manesar (Haryana)
- iii. Indian Oil Corporation, Research and Development Centre, Faridabad (Haryana)
- iv. Indian Institute of Petroleum, Dehradun (Uttarakhand)
- v. Vehicle Research Development Establishment, Ahmednagar (Maharashtra)

2.3.1.2.2. Retro-fit emission control system should be as per NGT / MoHUA recommendations to achieve minimum specified particulate matter capturing efficiency of at least 70%. The particulate matter shall be tested at site first without the device on DG in as installed condition during a continuous operation of 2 Hours with 50-70 % load. Thereafter it will be measured after installation of retrofit emission control device during a continuous operation of 2 Hours with 50-70 % load. From the test results particulate matter capturing efficiency of at least 70% to be achieved (i.e. if existing Particulate Matter emission value is X then final result should be less then 0.3X). The site Test report to be submitted to UPMRCL.

- 2.3.1.2.3. System should be certified from OEM of DG sets after installation of retrofit system. Prior installation NOC from DG set manufacturers should be obtained that there will no adverse affect on the performance and efficiency of DG sets.
- 2.3.1.2.4. Maintenance manual of system should be provided before installation.
- 2.3.1.2.5. Guaranty / Warranty against material and workmanship of the retrofit emission control device shall be One Year or 1000 Hours of operation from the date of successful testing at site.
- 2.3.1.2.6. Installation period of device / system will be 4(four) months from the date of LOA.
- 2.3.1.2.7. The Contractor to provide on site training to UPMRCL staff for routine maintenance of retrofit emission control device. The cost of the same if any to be included in the quoted price.
- 2.3.1.2.8. All men and material shall be arranged by Contractor. Contractor has to supply the material from manufacturer work shop to Lucknow site. The quoted price shall include the same.
- 2.3.1.2.9. Work may be carry out during non-operational hours in presence of UPMRC staff with prior permission.
- 2.3.1.2.10. Method statement for installation of system to be submitted and got approved from UPMRC before start the work.

2.4. DELIVERABLES, TIME SCHEDULE

S. No.	Deliverables	Completion from the date of issue of LOA
1	Submission of approach of work/ methodology, Drawings and the details of team as per the scope of work	15 Days
2	Type test certificate of retrofit emission control device from CPCB approved lab	45 Days
3	No objection from DG OEM	60 Days
4	Installation , Testing Commissioning at site of retrofit emission control device on existing DG sets	120 Days

2.5. Payment Schedule

100 % payment after successful installation, testing and commissioning at site.

2.6. OTHER CONDITIONS

- a) There will be complete co-ordination between the contractor and UPMRC to review the progress of work done at each stage and UPMRC will review the progress of work at regular intervals
- b) In case of premature termination, no compensation shall be payable.

Section-III

GENERAL TERMS & CONDITIONS OF CONTRACT

1. DEFINITIONS

“Company” means Uttar Pradesh Metro Rail Corporation Ltd., Administrative Building, Dr. Bhimrao Ambedkar Samajik Parivartan Sthal, Vipin Khand Gomti Nagar, Lucknow-226010.

“Officer-in-Charge” means Chief Electrical Engineer Project-1 designated as such by the company and authorized to act for and on its behalf.

2. Site: At following locations

S. No.	Location
1	Sachivalaya Metro station , Lucknow (U.P.)
2	KD Singh Babu Stadium Metro station , Lucknow (U.P.)

3. CONTRACTOR'S OBLIGATIONS

3.1 The Contractor shall arrange on the advice of the Officer-in-Charge, to issue identity cards bearing photographs of the employees for gate entry and shall exhibit prominently during working hours. The Contractor shall ensure that only authorized employees enter the premises of UPMRC, wearing and carrying proper I-card supplied by the Contractor.

3.2 SITE VISIT

a. The agency shall be deemed to have inspected the site and its surroundings before and taken into account all relevant factors pertaining to the Site in the preparation and submission of the Tender.

3.3 CLARIFICATION ON TENDER DOCUMENTS

While all efforts have been made to avoid errors in the drafting of the Tender documents, the Tenderer is advised to check the same carefully. No claim on account of any errors detected in the Tender documents shall be entertained.

4. CONTRACTOR'S TAX LIABILITY

Unless otherwise stated in the special conditions of the contract the price quoted shall be all inclusive (including all taxes, royalties, levies etc.) except GST.

5. SAFETY AT SITE

Contractor is wholly responsible for safety of work site, man power engaged in all manners during site works.

6. COMPLETION PERIOD

All the work related to Design, Manufacture, Supply, Installation, Testing and Commissioning of Emission Control Device on existing DG sets at 2 stations (1 Elevated & 1 Underground) of N-S corridor of Lucknow Metro shall be completed within 4 months after issue of LOA.

In the event of any dispute arising out of the clauses mentioned above, the same shall be referred to Chief Electrical Engineer Project-1 UPMRC, Lucknow. Chief Electrical Engineer Project-1 may appoint any officer for decisions and his decision shall be final and binding on both the parties.

Section-IV

SPECIAL CONDITIONS OF CONTRACT

1.0 Work completion certificate

The works shall be taken over by the Employer when the Contractor has finished the work in accordance with the contract wherever applicable as per contract and have handed over the works to UPMRC to their full satisfaction and accordingly a work Completion Certificate shall be issued for the works.

2.0 The Contract Price Inclusions/ Exclusions

The rates quoted by the Tenderer for all items shall be inclusive of Transportation charges, all Taxes and duties etc. except GST and the entire incidental charges required to fulfill the Tender conditions including statutory deduction viz TDS towards income tax, works contract tax etc.

3.0 Price Variations

No price variation is applicable in this work.

Section-V
Bill of Quantities

Design, Manufacture, Supply, Installation, Testing and Commissioning of Emission Control Device on existing DG sets suitable for 160 KVA & 1010 KVA DG sets at UPMRC Metro stations Lucknow (U.P.)					
Sr. No.	Description of works	Unit	Qty.	Unit Rate (INR)	Amount (INR)
1	Design, Manufacture, Supply, Installation, Testing and Commissioning of Retrofit emission control system suitable for DG set with following requirements as given below:				
A	Retro-fit emission control system should be as per Statutory Authorities recommendations to achieve minimum specified particulate matter capturing efficiency of at least 70% .				
B	The emission control system shall be type tested and approved from CPCB approved laboratories any one from the followings as per guideline of NGT and MoHUA i. Automotive Research Association of India, Pune (Maharashtra) ii. International Centre of Automotive Technology, Manesar (Haryana) iii. Indian Oil Corporation, Research and Development Centre, Faridabad (Haryana) iv. Indian Institute of Petroleum, Dehradun (Uttarakhand) v. Vehicle Research Development Establishment, Ahmednagar (Maharashtra)				
C	Retro-Fit emission control system of suitable rating or sizes shall be installed or retrofitted in existing exhaust pipe with required modifications and suitable design compatible for respective model of diesel engine prime mover of DG sets and have safety precautions to ensure no damage to the engine operations under any circumstances.				

Sr. No.	Description of works	Unit	Qty.	Unit Rate (INR)	Amount (INR)
d	Safety system provided to engine from higher back pressure, engine vibration, and high temperature operations to avoid any malfunction, it should be within the limits as recommended by DG OEM. The retrofit system manufacturer to coordinate and take certificate from DG OEM.				
e	The emission reduction will be verified after the installation of unit at site by any of the air pollution labs approved by CPCB or UP state PCB.				
1.01	DG 160 KVA (make sterling Generator)	No.	1		
1.02	DG 1010 KVA (make sterling Generator)	No.	2		
	Total without GST				
	GST @..... extra				
	Total With GST				

Total (In Words):.....