

RFP for Independent Quality and Safety
Consultant
for the Kochi Metro Rail Limited

RFP No.KMRL/Contract/IQSC/2013-14



Kochi Metro Rail Ltd.

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KMRL may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this RFP.

The issue of this RFP does not imply that KMRL is bound to select an Applicant or to appoint the Selected Applicant, as the case may be, for the Assignment and KMRL reserves the right to reject all or any of the Proposals without assigning any reasons whatsoever.

The Applicant shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by KMRL or any other costs incurred in connection with or relating to its Proposal. All such costs and expenses will remain with the Applicant and KMRL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Applicant in preparation or submission of the Proposal, regardless of the conduct or outcome of the Selection Process.



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1 LETTER INVITING PROPOSALS

Dated: 2013

KMRL/Contract/IQSC/2013-14

Sub: Appointment as Independent Quality and Safety Consultant for Kochi Metro Rail Project

Dear Sir,

Kochi Metro Rail Limited is in the process of selecting an Independent Quality and Safety Consultant (IQSC) for Kochi Metro Rail Project. With this letter we are seeking your Proposal for Appointment as 'IQSC' through the 'Request for Proposal' (RFP) enclosed with this letter.

You are requested to submit your proposals as per the terms and conditions of the enclosed RFP Document latest by September 27, 2013.

Thanking you,

Yours sincerely,

Elias George

Managing Director



2 ABBREVIATIONS & ACRONYMS

AFC	Automatic Fare Collection
Agreement	The Agreement to be executed between KMRL and Successful Applicant, subsequent to the Letter of Award.
Agreement Rate	Rates to be paid by the KMRL to the IQSC as agreed in the Agreement. This rate shall be the mutually agreed amount between the IQSC and KMRL and may vary from the rate quoted in the Financial Proposal.
Agreement Value	The Cost of the Contract calculated on the basis of Total Cost of Assignment as calculated at the Agreement Rate for the indicative period and manmonths prescribed in the Format of Financial Proposal.
Applicant	The eligible firms who will participate in tendering process
BIS	Bureau of Indian Standards
Contractors	The agencies and/or individuals engaged by the Executing Agency (i.e. DMRC) for executing the Project
Owner	Kochi Metro Rail Ltd.
DMRC	Delhi Metro Rail Corporation, Executing Agency
DPR	Detailed Project Report
EA (Executing Agency)	Delhi Metro Rail Corporation, which has an agreement with the KMRL for executing the Project
E&M	Electrical & Mechanical
Financial Proposal	As defined in Clause 9.4 of the RFP Document
GoI	Government of India
GoK	Government of Kerala
IQSC	Selected Applicant engaged by the KMRL as Independent Quality and Safety Consultant for the Project
IS Code	Indian Standards Code
KMRL	Kochi Metro Rail Ltd.
LOA	Letter of Award – Letter from KMRL to Successful Applicant conveying selection and outlining the terms and rates of Assignment
NABL	National Accreditation Board of Laboratories, Government of India
PDD	Proposal Due Date i.e. the last date & time for submission of Application as per this RFP Document
Project	The Kochi Metro Rail Project as defined at Clause 5.2
Proposals	Tenders for being engaged as IQSC as per the terms and conditions of this Document
PSG	Platform Screen Gate
QMP	Quality Monitoring Plan of the IQSC for sample inspections, audits and verifications of the adherence by the Executing Agency and/or its Contractors to the Quality Assurance Plan adopted by them
RFP	Request for Proposal
RS	Rolling Stock
Selected Applicant	Applicant shortlisted for the Assignment after technical evaluation



Technical Proposal	As defined in Clause 9.3 of the RFP Document
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3 INTRODUCTION

3.1 Name of the Assignment

3.1.1 Independent Quality and Safety Consultant for Kochi Metro Rail Project.

3.2 Objective of the RFP

3.2.1. Kochi Metro Rail Ltd. having its Corporate office at Revenue Tower, Kochi (hereinafter referred to as 'KMRL') is a Special Purpose Vehicle (SPV) set up by the Government of Kerala and the Govt. of India as a wholly owned govt. company for execution of the Kochi Metro Rail Project.

3.2.2. KMRL has entered into an agreement with the Delhi Metro Rail Corporation (hereinafter referred to as 'DMRC') for development of the Kochi Metro Rail Project.

3.2.3. Through this Request for Proposal (RFP), KMRL is seeking proposals from interested firms for appointment as an Independent Quality and Safety Consultant (hereinafter referred to as the IQSC) for the 'Project'. The IQSC would be responsible for Third Party Inspection, Quality Audit, Project monitoring, interfacing, review of design & drawing of the Project.

3.2.4. KMRL intends to select the IQSC through the procedure set out herein.

3.3 Time Schedule and Proposal Due Date

3.3.1 Applicants are advised to adhere to the Schedule for submission of the Proposal as given in para 4 at Page 14

3.3.2 Proposal should be submitted before the Proposal Due Date (PDD) at the address of KMRL provided in this RPF Document.

3.3.3 KMRL may, in its sole discretion, extend the Proposal Due Date uniformly for all Applicants by issuing an Addendum.

3.4 Validity

3.4.1 The Proposal should be valid for a period of not less than 180 days from the Proposal Due Date (the 'PDD') or any extension that may be issued as provided in para 3.3.3.

3.5 Due Diligence by Applicants



- 3.5.1. Applicants are advised to read the contents of this RPF Document carefully in its entirety along with all chapters, annexures and appendices.
- 3.5.2. Applicants are encouraged to inform themselves fully about the assignment and the local conditions before submitting the Proposal by paying a visit to KMRL and the Project site, and sending written queries to KMRL.
- 3.5.3. The Applicant shall provide all the information sought under this RFP. KMRL may in its discretion evaluate only those Proposals that are received within the specified time in the specified forms and complete in all respects.

3.6 Correspondence

- 3.6.1 All communications, including the envelopes, should contain the following information, marked at the top in bold letters:

RFP No. KMRL/Contract/IQSC/2013-14 for appointment of Independent Quality and Safety Consultant for Kochi Metro Rail Project

- 3.6.2 All communications including the submission of Tender should be addressed to:

Director Project
Kochi Metro Rail Limited
8th Floor, Revenue Tower, Park Avenue,
Kochi, Kerala, India – 682 011
Phone: 91 484 2380 980
E-mail: kochimetrorail2011@gmail.com

- 3.6.3 The RFP can be obtained from the office of Managing Director/KMRL by paying a non-refundable tender cost of Rs. 25,000 (Rupees twenty five thousand only) in the form of a Demand draft or a Pay Order drawn in favour of KMRL, payable at Kochi.

3.7 Selection Process in Brief

- 3.7.1 KMRL has adopted a two stage selection process (collectively the ‘Selection Process’) in evaluating the Proposals comprising of technical and financial proposals to be submitted in two separate sealed envelopes. In the first stage, a technical evaluation will be carried out. Based on this technical evaluation, a financial evaluation of technically responsive Applicants will be carried out. The detailed evaluation criteria is given in para 3.8.

3.8 Eligibility (Prequalification cum Technical Criteria)

The details of ‘eligibility cum technical criteria’ covered in this tender is detailed below:-



3.8.1.Bidder

The invitation for proposal is open to all entities /bidders who fulfill the prequalification-cum-technical criteria. In case of a consortium/JV, the lead member holding more than 50% share in the consortium must satisfy the Eligibility conditions mentioned below. In case of consortium / JV a maximum of three entities as members are permitted for treating them as a 'bidder'.

3.8.2 Eligible "Assignments"

For the purpose of determining conditions of Eligibility and for evaluating the Tender under this RFP **Consultancy assignments in respect of Design Consultancy/General Consultancy/ Consultancy in supervision of quality and safety works for the following projects shall be deemed as "eligible assignments"**.

- a) The Railway/MRTS projects where the Bidder has received a Consultancy fee of Rs.20 Crore(Rupees twenty Crore) or more in a single work
AND
- (b) The scope of consultancy services provided in the above stated work of Railways/MRTS, the expertise shall inter-alia include Rolling Stock, Signaling, Traction, Track and other related facilities.

3.8.3 The Bidder / lead member of JV should satisfy all of the **qualifying criteria detailed** below:

- (i) The bidder should have been providing consultancy services for "Eligible assignment" for at least five financial years prior to 31st March 2013 and must have executed minimum 5 "eligible assignments" (to the satisfaction of the service recipients)
- (ii) The Bidder must have an average annual turnover of not less than INR 30 crores during the last three financial years ending 31st March 2013. Out of the average turnover per year at least an average of INR 20 Crores or above should be from consultancy services in railways/MRTS Projects relevant to this RFP.
- (iii) Key Personnel Proposal :**The list of the key personnel proposed to be deployed is given below. Applicants must attach CVs of their Key Personnel and undertaking from them as covered in the enclosed format

S.N	Position	Qualification	Experience
1	Team Leader*	Graduate in Civil or Electrical Engineering	20+ years in railway, out of which minimum 10 years in Metro/MRTS. Shall have worked in atleast 1 metro railway project.
2	Rolling Stock	Graduate in Electrical	15+ years in railway industry.



	Expert*	Engineering	Shall have experience of writing RS procurement specifications and managing/reviewing detailed design of RS in atleast one metro railway project.
3.	Power supply and DC third rail traction expert*	Graduate in Electrical engineering	10+ years in railway industry. Shall have experience of design of DC traction system and third rail system in atleast one metro railway or monorail project.
4.	AFC cum PSG Expert	Graduate in Electrical or Electronics engineering	10+ years in railway industry. Shall have experience of writing AFC/PSG procurement specifications and managing/reviewing detailed design of AFC/PSG in atleast one metro railway project.
5.	Signaling Expert*	Graduate in Electrical or Electronics Engineering	10+ years in railway industry. Shall have experience of writing Signaling procurement specifications and managing/reviewing detailed design of Signaling in atleast one metro railway project.
6.	Telecom Expert	Graduate in Communication or Electronics engineering	10+ years in railway industry. Shall have experience of writing Telecom system (including subsystems such as FOTS,PIS, PIDS,CCTV Telephone etc.) procurement specifications and managing/reviewing detailed design of Telecom System in atleast one metro railway project.
7.	Track cum Alignment expert*	Graduate in Civil or any other Engineering discipline	10+ years in railway industry. Shall have experience of detailed design/execution of track work in atleast one metro railway project.
8.	Project Planning and scheduling expert	Graduate in Civil Engineering	15+ years in railway industry. Shall have experience of Project Planning & scheduling in atleast one metro railway project.
9.	Station	Graduate in	10+ years in railway industry.



	/Viaduct Layout Expert (2 No)	Architectural/civil	Shall have an experience of detailed design for elevated station in atleast one metro railway project totaling not less than 10 stations.
10.	Station E&M expert	Graduate in Electrical engineering	10+ years in railway industry. Shall have experience of detailed design of station E&M systems in atleast one metro railway project totaling not less than 10 stations.
11.	Operation cum Manual Expert	Graduate in any engineering discipline	15+ years in railway industry. Shall have experience of planning of operation and maintenance in atleast one metro railway project.
12.	Depot Design cum depot M&P Expert	Graduate in any engineering discipline	15+ years in railway industry. Shall have experience of detailed design of metro depots in atleast one metro railway project
13.	Engineers Quality (Civil) (6 Nos.)	B.E (Civil)	Minimum experience of 10 years in project of similar nature in government/PSU/ Corporation in Quality Assurance
14	Engineers Quality (E&M) 1 No.	B.E.(Electrical)	Minimum experience of 10 years in projects of similar nature in government/PSU/ Corporation in Quality Assurance in E&M
15.	Engineers Safety (Elect.)(1 No.)	B.E. in Elec. and specialization in safety	Minimum experience of 10 years in projects of similar nature in in government/PSU/ Corporation including electrical safety
16.	Engineers (Civil)/Safety (6 No.)	B.E. in Civil and specialization in safety	Minimum experience of 10 years in projects of similar nature in government/PSU/ Corporation including safety monitoring for civil work.
17.	Engineer S&T Quality (1 No.)	B.E(electronics)	Minimum experience of 10 years in projects of similar nature in government/PSU/ Corporation in Quality Assurance system in signaling



18.	Engineer Rolling Stock Quality (1 No.)	B.E (Electrical)	Minimum experience of 10 years in projects of similar nature in government/PSU/ Corporation in Quality Assurance in rolling stock.
19.	Chief Safety & Environment Expert*	Graduate with specialization in Safety	Minimum 10 years experience in Railway/MRTS/Metro

*

Essential Key Positions

Note:- On satisfying technical eligibility condition (i) & (ii) above, the tender committee shall evaluate eligibility condition (iii) in following manner.

- (i) **Out of the 25 Consultants/Engineers 6 positions are classified as “essential key positions”. They are Team leader, 2,3,5,7,19. The weightage markings are 25, 20, 15, 15, 15 & 10 respectively. Minimum 70% marks are needed to be eligible to qualify this eligibility condition. Under the marking system, essential key positions satisfying requirements shall be given full marks and for the same position response from other bidders “short of satisfying requirement” shall be awarded marks proportionately.**

(A) Response Requirements

- i) The Response to the Pre-Qualification-cum-technical Requirements shall be prepared in accordance with the requirements specified in this RFP and in the format prescribed in this document for each of the above mentioned qualifying criteria as proof of having the minimum requirements.
- ii) Proposals must be direct, concise, and complete. Any information not directly relevant to this RFP should be omitted.
- iii) The Pre-Qualification-cum-technical Proposal shall be sealed and super scribed “Response to tender for Pre-Qualification-cum-technical Requirements for “Independent Quality and Safety Consultant”” on the top right hand corner with all the contents of the pre-qualification-cum-technical proposal. The proposal shall be signed by the authorized signatory on all the pages before being put in the envelope and sealed.
- iv) The proposal should contain the copies of references and other documents as specified in the RFP.

3.8.4 Submission of Financial Proposal

3.8.4(A) The Applicant shall prepare the Financial Proposal which must be submitted in a sealed envelope. The envelope shall be super scribed with;

- (i) Name of work



- (ii) Name of Proposal, viz., Financial Proposal
- (iii) Address of KMRL
- (iv) Name and address of Applicant

3.8.4(B) List of documents to be submitted in the sealed cover marked “Financial Proposal”

I. Commercial Proposal

The financial proposal should include all costs associated with the assignment. These normally cover: remuneration for staff (to be positioned in the field and at headquarters), accommodation, transportation (for mobilization and demobilization), and equipment (vehicles, office equipment, furniture and supplies), printing of documents, surveys, submission of report etc. The financial proposal should be prepared using, but not limited to, the formats attached in Appendix –XI.

Note No.1 No tax liability, excluding Service tax will be borne by KMRL. However, any concession/exemption in the taxes, duties and cesses as are extended shall be passed on to KMRL. Further the cost of insurance expenses and professional indemnity Insurance Policy for consultant’s staff for this project will be borne by the consultant. This professional indemnity insurance will be taken by the consultant and shall be in addition to the performance guarantee deposit/bank guarantees.

Note No.2 All costs of the Applicant should be considered and quoted accordingly in the proposal. The proposal should quote costs both for staff/experts and expatriates and other expenses clearly in local currency (in Indian Rupees only).

3.8.5. Submission of Proposal : Requirement of submissions

The Proposal should be submitted in the sealed envelope with the following details.

Cover No.1 : It should contain a Covering Letter and Processing Fee. At the top of the cover, please super scribe “COVER NO.1 containing covering letter and Processing Fee”

- a. Covering Letter must be as per the format provided in Appendix – I
- b. A non-refundable RFP/tender cost of Rs. 50,000 (Rupees fifty thousand only) in the form of a Demand draft or a Pay Order drawn in favour of KMRL, payable at Kochi has to be enclosed.



- d. Copy of Memorandum and Articles of Association, if the Applicant/Consortium Member is a corporate body, and if a partnership then a copy of its partnership deed.
- e.

Cover No.2 : It should contain the details of the Applicant's Organization. At the top of the cover, please super scribe "COVER NO.2 containing details of the organization & Turnover details".

- a. This document must include a general background of the Applicant's organization along with other details of the organization including details of authorized signatory as per the format provided in the RFP (Appendix – II). Enclose the mandatory supporting documents listed in format.
- b. The Applicant must also provide the financial details of the organization. The breakup details of yearly turnover indicating element of consultancy fee must be given. Enclose the mandatory supporting documents listed in RFP.
- c. Copies of Applicant's duly audited balance sheet for the preceding three years (FY 2013-12, 2012-11, 2011-10)

Cover No. 3 : It should contain Relevant Project Experience for similar Projects. At the top of the Cover super scribe "Cover No.3 containing Prequalification cum Technical Criteria – Details of Eligible Assignments". Applicants must provide details (client organization, nature / scope of the project, project value) of similar project experience. The projects details mentioned here should match with the projects covered in RFP in order to satisfy the qualification. Separate sheets can be used to furnish details.

Cover No. 4 : It should contain CVs of the Key Personnels. At the top of the Cover super scribe "Cover No.3 containing Prequalification cum Technical Criteria – Details of CVs of Key Personnels". Applicants must provide detailed CVs of Key Personnels in a format as covered in RFP (appendix VII) . The CVs enclosed should match with the requirements covered in para 3.8.2 of this RFP.

Cover No.5 : It should contain Financial proposal as detailed in para 8 of Article 3 of tender document. At the top of the Cover, please super scribe "COVER NO.4 Financial Proposal".

- a. Applicant must provide details as per directions given in the format – Appendix-XI.

Cover No. 6 : It should contain all covers i.e. Cover No.1, Cover No.2, Cover No.3, Cover No.4 and Cover No. 5. At the top of the Cover super scribe " Cover No.6 containing Bid for the



RFP and contains Cover No.1, Cover No.2, Cover No.3, Cover No.4 and Cover No. 5). Applicant must submit this Cover No.6 on or before the last date of submission of the Proposal.

NOTE : This RFP is posted on KMRL web site . Applicants are at liberty to download RFP document from KMRL web site and submit the same ,duly filled, along with cost of tender fee. RFP submitted without cost of RFP shall be summarily rejected.

4. TIME SCHEDULE

S. No.	Events	Dates	Location
1.	Prebid meeting	September 23, 2013 14. 00 hrs	Office of the KMRL, Revenue Tower, Kochi
2.	Proposal Due Date (PDD): Last date & Time of Submission of Tender	September 27, 2013 14.00 hrs	Office of the KMRL, Revenue Tower, Kochi
3.	Date & Time of Opening of Prequalification cum Technical Proposal	September 27, 2013 15.00 hrs	Office of the KMRL, Revenue Tower, Kochi
4.	Date & Time of Opening of Financial Proposal	To be advised later on	Office of the KMRL, Revenue Tower, Kochi



5 PROJECT DESCRIPTION

5.1 Introduction to the Kochi Metro Rail Project

5.1.1 The Govt. of Kerala (GoK) has resolved to take up Kochi Metro Rail Project. Detailed Project Report (DPR) has been prepared and is available on the official website of the KMRL.

5.1.3 KMRL has entered into an agreement with the Delhi Metro Rail Corporation (hereinafter referred to as DMRC) for execution of work from Aluva to Petta on 'deposit work' basis hereinafter referred to as the 'Project'.

5.2 Project Definition

5.2.1 **'Project'** for the purpose of this document means: Viaduct Works from Aluva to Petta having a total length of 26.612 km, 21 Stations and a depot at Muttom.

5.2.1.2 Works including alignment & formation, station Buildings, Depot, P way, Traction & Power supply including 750VDC, Signalling, rolling stock, ASS, lifts & escalators; R&R including hutments, miscellaneous utilities, road works, other civil works such as median station, signages, environmental protection etc. for the above Project.

5.3 Executing Agency for the 'Project'

5.3.1 KMRL has entered into an agreement with the DMRC for the Project and accordingly, for the purpose of this document, DMRC shall be termed as the 'Executing Agency' for the Project for the purpose of this RFP Document.

5.4 Contractors for the 'Project'

5.4.1 The agencies and/or individuals engaged by the Executing Agency (i.e DMRC) for executing the Project shall be termed as Contractors for the Project for the purpose of this RFP Document.

5.5 Assignment

5.5.1 The Assignment envisages quality, Safety interface monitoring for the 'Project' as detailed in the Scope of Work of this RFP document.



5.6 General Philosophy of Quality & Safety audit

5.6.1 The term “Quality” has been defined as the totality of features and characteristics of a Project and its works that has the ability to satisfy stated or implied needs, which is specified in the contract document. The quality of the project is ensured and maintained by following a documented “Quality Plan” which sets out specific quality practices, including “Quality Control” which includes operational techniques of controlling quality.

5.6.2 The aim of Quality Control is to ensure that the project is executed in accordance with the specifications prescribed.

5.6.3 The onus of construction & quality of work lies on the Executing Agency (EA) and its Contractors in terms of the contract documents. A substandard input or work must be rejected and should not be accepted. Further, a substandard work must be either redone or rectified by the Executing Agency and / or its contractors to conform to prescribed drawings and specifications.

5.6.4 “Quality assurance” includes all these planned actions necessary to provide adequate confidence that the product will meet the requirements. “Quality Assurance Plan” sets out the planned actions required for quality assurance. The continuous monitoring and verification of the status of QA activity to ensure that it is being followed is called “Quality Monitoring/Inspection”.

5.6.5 “Quality Monitoring” is a managerial tool used for reviewing the whole or part of the quality system by a group not connected with the operation of the QA plan.

5.6.6 **Safety Health & Environmental Audit**

The purpose and scope of SHE audit is to assess potential risk, liabilities and the degree of compliance of the construction Safety, Health & Environmental plan and



its supplementary procedures and programs against applicable and current SHE legislation, regulations and requirements of KMRL.

Monthly Audit Rating Score (MARS) will be performed by a team consisting of Contractors, KMRL and IQSC's representatives based on the pre designed score-rating format. The details of the pre-designed monthly audit score rating formats are given in the Project SHE manual.

Monitoring Documentation- IQSC will review the following documents of the Contractor:

- i) SHE policy
- ii) SHE manual
- iii) SHE Rules and Regulation
- iv) SHE organization chart
- v) Annual SHE objectives / programs
- vi) Accident / near miss statistics and analysis
- vii) SHE Training program / records for all personnel
- viii) Operating manuals and maintenance manual of all equipments
- ix) Safe worthiness certificates of all lifting appliances and gears
- x) Medical fitness record for all personnel
- xi) Risk identification, assessment and control details
- xii) Environmental management reports.

5.7 Terms of Reference (ToR)

1. Independent review of Interface Management Plans, submitted by Contractors, for adequacy of such plans to ensure execution of work in accordance with the contract agreement;
2. Independent review of Project Management Plans, submitted by Contractors, for adequacy of such plans to ensure execution of works in accordance with the contract agreement;
3. Independent review of Quality Assurance Plans and Quality Plans, submitted by Contractors, for adequacy of such plans to ensure execution of works in accordance with the contract agreement;
4. Independent review of software Quality Assurance Plans, submitted by Contractors, for adequacy of such plans to ensure execution of works in accordance with the contract agreement;



5. Independent review of Inspection, Tests and Commissioning Plans, submitted by Contractors, for adequacy of such plans to ensure execution of works in accordance with the contract agreement.
6. Independent review of designs, including design calculations, design reports and design drawings submitted by Contractors, for adequacy of such plans to ensure execution of works in accordance with the contract agreement.
7. Independently Perform sample checks and other measures in terms of Quality Assurance Plans and Quality Plans, Safety Assurance Plans and Safety, Health and Environment Manual;
8. Independent review of O&M Manuals and preparation of training module for O&M staff of KMRL;
9. Independent review of Quality & Safety audit as detailed in Chapter 5 & 6 of the tender document.

Independent review is to ensure that the contractors works comply with the specifications/codes/standards/low life cycle consistently and can be operated safely to the satisfaction of Kochi Metro Rail Ltd. IQSC need to submit a detailed report to KMRL periodically.

6 SCOPE OF WORK

The Scope of work shall include Independent Quality, Safety Monitoring Review of Interfacing & Project implementation plans and reporting for the Phase-1 of the Kochi Metro Rail Project as stipulated below.

The following activities shall be conducted by the Independent Quality, and Safety Consultant (IQSC).

6.1 Preparation of Quality and Safety Monitoring Plan (QSMP)

A Plan shall be prepared for ***sample inspections, audits and verifications*** of the adherence to the Quality Assurance Plan and Safety Manual as adopted by the Contractors of Kochi Metro Project appointed by DMRC. This plan of the IQSC shall be named as the '**Quality and Safety Monitoring Plan (QSMP)**'.

A. Quality Monitoring Plan

6.1.1 Reference Documents –IQSC Consultant shall study the following documents:

- a) Scope of works, specifications and contractual obligations as per the contract awarded to the Contractors for the Project



- b) Regulations, Rules, Standards, Codes of practices as applicable in the contractual obligations of the contractors.
- c) Quality Assurance Plans and Manuals as proposed by the Contractors and approved by DMRC/KMRL for the Project including Inspection and Test Plans (ITP), formats, records in line with the provisions already included in the agreed contract documents covering all aspects of ISO-9001

6.1.2 Plan for Monitoring of Scheduled Tests of Contractor- The Plan shall include monitoring of tests being done by the Contractor by way of the following:

- a) Witnessing minimum 20% of the total number of such tests and sampling as scheduled in the approved Quality Plan to be adopted by the Contractors.
- b) Conducting minimum 15% of the total number of such tests and sampling as scheduled in the approved Quality Plan. Such tests may be done at the site laboratory or be got done by the IQSC from external laboratories through the Contractors.

6.1.3 Plan for Super Checks (Additional Tests) - The Plan shall include additional tests and sampling for assessing/auditing the conformance by the Contractors to the Quality Plan.

6.1.4 Essential Components of Quality Monitoring Plan- Based on the above, the Comprehensive Quality Monitoring Plan (QMP) to be adopted by the IQSC shall include plans, procedures, standard test methods, reporting formats, methodologies, frequencies, tolerances, test schedules, random test guidelines and compliance protocol for sampling, tests and physical verifications with respect to the following heads as detailed in subsequent paragraphs:

- Monitoring of Resource Mobilization of Contractor
- Monitoring of Inventory
- Testing
- Physical Verification
- Monitoring of Documentation
- Documentation and Communication
- Compliance Protocol

6.2 Monitoring of Resource Mobilization

6.2.1 Onsite Laboratory: IQSC shall:

- a) Monitor if the Contractor has set up the onsite laboratory in accordance with the conditions of applicable contract.
- b) Verify that the laboratory is equipped with adequate equipment, tools, and consumable and is manned by required skilled staff conforming to the relevant sections and standards of the reference documents.



- c) Monitor if the methods, techniques and documentations being adopted in the onsite laboratory are as specified in the relevant sections of reference documents.
- d) Monitor if the laboratory is delivering results and reports within its scheduled or specified period.

6.2.2 External Laboratory - Some tests are to be done through external laboratories and in this context the IQSC shall:

- a) Verify if the external laboratories selected by the Contractor have the requisite capabilities and are accredited with the NABL.
- b) Shortlist NABL accredited laboratories and academic/government institutes capable of conducting tests as per the QMP
- c) Monitor if the laboratory is delivering results and reports within its scheduled or specified period.
- d) Ensure that the confidentiality of test result is maintained by the testing lab

6.2.3 Monitoring of Resources - Monitoring whether the equipment, plant, machinery, tools, manpower etc. being utilized by the Contractor are in conformity with the conditions laid out in the contract so as to ensure implementation of the work with due quality and safety and adhering to the prescribed time schedule.

6.3 Monitoring of Inventory

6.3.1 Sourcing and Receipt: The IQSC shall monitor if the process of sourcing of material is being followed as specified in the contract especially with respect to the following:

- a) if the materials used in the works of specified quality are being procured from approved sources and suppliers.
- b) if the sourced materials comply strictly with the prescribed standards as specified in the reference documents.
- c) Conformance of material before leaving the manufacturers' premises, quarry or resource, wherever possible.
- d) Whether the manufacturers' or suppliers' (as the case may be) certificates of test, test reports from outside laboratories, proof sheets etc. as specified in the reference documents are being obtained.

6.3.2 Storage Procedures

6.3.2.1 The IQSC shall monitor if the storage of materials is in accordance with IS4082 and/or other applicable codes and the QMP. This would include but not be limited to storing on racks, supports, bins, under cover etc. to prevent deterioration and damage.

6.3.2.2 The IQSC shall monitor if the 'control samples' provided for retention are being labeled properly in boxes suitable for storage and are being stored in accordance with the specified standards.

6.3.3 Removal - IQSC shall also monitor if the non-conforming and rejected materials are being removed from the site promptly



6.4 Testing

6.4.1 Testing of Materials: IQSM Consultant shall

- a) Monitor if the samples required for testing onsite as well as in external laboratories are being collected by the Contractor as per the schedule, procedures and quantities outlined in the QMP.
- b) Witness and/or conduct sampling, inspections and tests on input materials (including natural, processed, designed and manufactured materials) as per the provisions of the QMP.
- c) Monitor if the materials being used in the Project are corresponding in character and quality with approved samples.

6.4.2 Testing of Workmanship

The IQSC shall conduct quality control tests and inspections on construction/works in progress' as per the provisions of the QMP. The Quality of the 'Completed Works' shall be checked for their conformance to specifications through specified test methods and standards.

6.5 Physical Verification

IQSC shall conduct inspections for physical verification of all features including but not limited to:

- a) Alignment and layout of the Project as per the specified plans and drawings.
- b) All civil works for viaducts, stations and depot as per specified plans and specifications.
- c) Track, 3rd rail and other Electrical Works.
- d) Aesthetics and heritage features as per approved plans.

6.6 Monitoring Documentation: The IQSC shall:

- a) Monitor if the Contractors are recording and maintaining sampling data, test results, equipment calibration data & related correspondence in specified formats of the QAP, as adopted by the Contractors
- b) Bring the non-conforming works and materials as determined by the IQSC to the notice of KMRL.

6.7 Documentation and Communication

The IQSC shall:

- a) Prepare and maintain rigorous documentation of non-conforming test results, workmanship inspection reports, compliance reports etc. as per the QMP.
- b) Submit monthly progress reports in the agreed standard formats, both in printed as well as electronic format so as to maintain uniformity and traceability of records even after the physical completion of the project.
- c) Submit a monthly schedule of activities to the KMRL latest by 25th of each month during the period of the Assignment.



- d) Undertake all communication with the Contractors through the KMRL unless otherwise authorized by the KMRL or in case of exigencies.

6.8 Compliance Protocol

6.8.1 Reporting

- a) **Reporting of conforming tests** - To be conveyed via email to KMRL within 24 hrs of the receipt of test reports.
- b) **Reporting of non-conforming tests**- To be immediately conveyed to KMRL in writing/printed format, under acknowledgment, not later than 24 hrs of the receipt of such reports.

6.8.2 Remedial Measures

The IQSC shall:

- a) Suggest remedial measures to improve the quality system if any of the component is found non-conforming to specified norms. However, KMRL will get these suggestions implemented through the Contractor.
- b) Monitor if procedures are being followed by the Contractor for corrective action and rejection with respect to non-conformances as determined in house by the Contractors or as reported by the IQSC.

For this purpose, a monthly review of non-conformance reports for each Contractor shall be undertaken with reference to the corrective action taken by the respective Contractors.

B. Safety Monitoring Plan

6.10 Reference Documents: Every contractor appointed by DMRC for the Kochi Metro Rail Project is required to undertake works in accordance with the applicable international guidelines, standards and specifications on SHE and shall aim to achieve ISO certifications listed below during the currency of the contract:

- a) OHSAS 18001-1999: Occupational Health and Safety Management System.
- b) ISO14001-2004: Environmental Management Systems.

6.10.1 Plan for Monitoring of SHE aspects of Construction Contractors

- a) The Contractor as per the contract shall formulate a SHE policy and get it approved by DMRC/KMRL and display it at conspicuous places at work sites in English and the local language understood by the majority of construction workers. The IQSC will ensure compliance of this.
- b) Within prescribed period of the notification of acceptance of the proposal, the IQSC shall submit a detailed and comprehensive SHE Plan to KMRL. The SHE Plan shall include



detailed policies, procedures and regulations which, when implemented, will ensure compliance of the contract provisions. The SHE Plan shall include the following but not be restricted to:

- I) A statement of the IQSC's policy, and arrangements for SHE
- ii) The name(s) and experience of person(s) who shall be responsible for coordinating and monitoring the Contractor's SHE performance;
- iii) SHE staff who shall be employed on the Works, their responsibilities, authority and line of communication.
- iv) A statement of the IQSC's policy and procedures for identifying and estimating hazards, and the measures for addressing the same;
- v) A list of SHE hazards anticipated for this Contract and sufficient information to demonstrate the Contractor's proposals for achieving effective and efficient health and safety procedures;
- vi) A description of the SHE training courses and emergency drills, which shall be provided by the Contractor, with an outline of the syllabus to be followed;
- vii) Details of the safety equipment which shall be provided by the Construct Contractor, including personal protective equipment;
- viii) A statement of the Contractor's policy and procedures for ensuring that Contractor's Equipment used on the Project Site are maintained in a safe condition and are operated in a safe manner;
- ix) A statement of the Contractor's policy and procedures for ensuring that sub-contractors comply with the Contractor's safety plan;
- x) A statement of the Contractor's disciplinary procedures with respect to SHE related matters, and
- xi) A statement of the Contractor's procedure for reporting and investigating accidents, dangerous occurrences or occupational illnesses.

6.10.2 The IQSC shall:

- i) Review KMRL's safety policies and practices
- ii) Monitor the adequacy of the Contractor's site SHE plan and ensure its implementation.
- iii) Review the Contractor's monthly SHE report.
- iv) Identify probable causes of accident and unsafe practices in building or other construction work and suggest remedial measures.
- v) Stimulate interest of KMRL and Contractors' workers in safety by assisting them in organizing safety competition, talks and film-shows on safety, preparing posters or taking similar other measures as and when required or as necessary.
- vi) Go round the construction site with a view to check unsafe practices and detect unsafe conditions and to suggest remedial measures for their rectifications including first-aid, medical and welfare facilities.



- vii) Bring to the notice of KMRL the hazards associated with use, handling and maintenance of the equipment used during the course of building and other construction work.
- viii) Suggest measures for improving welfare amenities in the construction site and other miscellaneous aspects of safety, health and welfare in building or other construction work.
- ix) Look into the health hazards associated with handling different types of explosives, chemicals and other construction materials and to suggest remedial measures including personal protective equipment.
- xii) Review the last safety committee meeting minutes and to recommend action against persons/sub-contractors for non-compliance, if any.

6.10.3: MONITOR PROGRESS, QUALITY AND SAFETY OF THE WORKS THROUGH REGULAR INSPECTION AND REPORT TO KMRL.

The RFP requires the IQSC to take a proactive role in keeping the Project on schedule and maintaining the quality standards.

The IQSC is required to:

- Inspect the Project regularly and report to the KMRL on compliance with the approved design and progress.
- Monitor the implementation of Quality Management Plan and report to KMRL.
- Within a week of the inspection the IQSC will issue an Inspection Report to KMRL.
- Attend and convene meetings on quality and progress.
- Review Testing and commissioning Plan prepared by Contractors and review material and test reports.
- Inspect workshops and manufacturing facilities supplying the works.
- Audit compliance in addressing progress and quality issues to achieve the Project objectives.

a) Monitor Compliance with Approved Design.

The IQSC will inspect the Works during construction and shall monitor the Contractor(s) compliance with the Approved Design, in particular the IQSC will:

- Ensure that facilities are provided as required by the design.
- Materials, including architectural finishes, meet design requirements.
- Tests required by the contract are executed and records properly maintained and
- Equipment meets specifications and is fully tested to prove compliance.

The IQSC shall list any serious non-compliance and deficiencies identified during inspection in particular any non-conformances that threaten the performance of the system. A register of the status of these items will be maintained and included in the IQSC's Monthly Report.



b) Monitor Progress

The IQSC will review progress of all aspects of the implementation of the Works – design, procurement, construction, installation and testing – and compare actual progress with the approved Programme.

Any deviations will be noted and flagged for action in the IQSC Inspection Report. The IQSC will pay particular attention to achievement of Milestones and progress towards achieving Milestones and to procurement of long-lead time equipment.

In addition to the regular scheduled Monthly Inspections, the IQSC will conduct ad-hoc site visits and inspections of design activities to determine that activities remain in schedule. Furthermore, the IQSM will be always alert to events that may in future delay the Project procurement of equipment, delays in design; for example. KMRL will be kept fully informed of any actual or forecast delays. The IQSC will work closely with all parties to develop mitigation measures, or work-around to avoid or minimize the impact of delays on the overall Project schedule.

The IQSC's Team leader and Project Planning & Scheduling Expert (PPSE) will be responsible for monitoring the progress of the works. The PPSE will make use of computerized scheduling software to test the impact that a delay to any one activity (or group of activities) will have on the achievement of Milestones and commissioning of the Project.

c) Monitor Quality

During the inspections the IQSC will inspect the contractors' quality records, including materials test results and equipment test, to check that the quality management plans are being implemented.

The quality records to be inspected / reviewed are:

- Material delivery dockets and accompanying QC documentation.
- Inspection and Test Procedure (ITP) records.
- Materials test results (concrete, rebar etc.).
- Site Diaries.
 - Activity records
 - Equipment and manpower records
 - Weather records
 - Safety Register
 - Environmental register
- Equipment test results and reports.



- Non-conformance Report Register.

The IQSC will arrange inspection visits to in-country facilities responsible for the manufacture, supply or storage of materials and equipment to be incorporated into the Works. At these visits the IQSM will request and inspect such quality documentation as may be required by the Contract and shall identify any non-conformances to be addressed.

Corrective Action Requests (CAR) will be issued where quality non-conformances are identified and the IQSC will track all CAR's through to closure. The IQSC will maintain a CAR register for Quality Management, which will be presented in the IQSC's Monthly Report.

- Audit reports shall be sent to KMRL.
- All reports shall be sent to KMRL.
- All comments on quality and CAR's will be recorded in the IQSC's Inspection Report. Follow up actions to CAR's will be recorded in the IQSC's Monthly Report in which a full list of CAR's will be maintained so that all parties are kept informed.

d) Monitor Compliance with Environmental Management Plan (EMP)

The IQSC will review the requirements of the Project Environmental Management Plan and will draw up check-lists to be used by IQSC staff who will be responsible for auditing the Contractors' compliance with the EMP. The IQSC Safety and Environmental Expert will be responsible for this aspect of the services.

The IQSC would conduct EMP audits as well as the scheduled Inspections.

The results of the EMP audits will be presented in the monthly inspections Reports and summarized in the IQSC's Monthly Report. The IQSC will maintain a CAR Register dedicated to the EMP.

e) Monitor Compliance with the Safety Management Plan (SMP)

The IQSC will review the requirements of the various Safety Management Plans and will draw up checklists to be used by IQSC staff who will be responsible for auditing the Contractors' compliance with the EMP. The IQSC Safety and Environmental Expert will be responsible for this aspect of the IQSC services.

As with quality, non-conformances, any SMP non-conformances will be identified and recorded and the Contractor will be advised through issue of a Corrective Action Request (CAR) through DMRC. Such CAR's will be followed up by the IQSC through to closure.

The IQSC shall conduct SMP audits as well as the scheduled Inspection.



The results of the SMP audits will be presented in the monthly Inspection Reports and summarized in the IQSC's Monthly Report to KMRL. The IQSC will maintain a CAR Register dedicated to Health & Safety.

f) REVIEW QUALITY ASSURANCE PROGRAMME (QAP) AND SAFETY MANAGEMENT PLAN (SMP) PREPARED BY CONTRACTORS

Quality Assurance Programme

The Contractor will prepare the Project Quality Assurance Programme (QAP), which will be reviewed and commented by the IQSC and KMRL.

Project Contractors and suppliers will prepare their own QAP's, which shall comply with the Project QAP and shall be submitted to DMRC for review and approval and to the IQSC for review and comment.

The IQSC Quality Manager will be responsible for this aspect of the IQSC's services.

These quality plans should reflect the requirements of an ISO 9001 compliant system, which are:

1. Identifying the processes of the Quality Management System to be implemented on the Metro and their application throughout the Project.
2. Determine the sequence and interaction of these processes.
3. Determine the criteria and methods necessary to ensure both operation and control of these processes are effective.
4. Ensure the availability of resources and information to support the operation and monitoring of these processes.
5. Monitor, Measure and analyze these processes.
6. Implement actions to achieve the planned results and to continually improve the processes.

The Quality Assurance Plan should:

- Describe the Project, the KMRL's vision, and the contractor's objectives in implementing the Project.
- Identify the Project participants, including Organization Charts and directory of key persons.
- Identify and describe the Project Documentation.
- Establish the Quality Plan Elements.
- Establish Procedures to be followed by the all the Project participants, including designers, contractors and suppliers.
- Define processes for reviewing performance and improving processes.



The Procedures section of the Quality Assurance Plan should include sections on the following elements:

- Office and Staff Management
- Document Control
- Procurement
- Design Management (Design, Design Checking, Design Reviews)
- Construction Management
- Contract Management
- Commissioning and Testing
- Maintenance of records and quality documentation.

The IQSC responsibility will be:

- To review these documents after review by DMRC and provide comments to KMRL.
- Monitor implementation of the plans through regular inspections and audits.

g) Testing and Commissioning Plan

The Contractor will prepare a Testing and Commissioning Plan covering:

- Factory Acceptance Tests
- Function Tests
- System Acceptance Tests
- Integrated testing and Commissioning Tests
- Oscillation Trials

This Plan will be submitted to the IQSC for review and approval. It is in the best interest of the Project to involve the Commissioner for Metro Rail Safety (CMRS) in the preparation of the Testing and Commissioning Programme to ensure that all the Authority's requirements are covered. IQSC would therefore assist KMRL in their discussions and liaison with the CMRS and our review of the programme would include ensuring that the CMRS requirements are incorporated.

The conditions precedent to moving from System Acceptance Tests to Integrated System Testing being:

- That all System Acceptance Tests are successfully concluded and any outstanding 'punch list items' are of only a minor nature that does not interfere with the proper functioning of equipment and systems.
- That test results for each system and sub-system are collated and submitted in a rational report format to the IQSC for review.



IQSC shall witness all proving and commissioning tests of equipment and plant and a selection of other tests sufficient to satisfy the IQSC team that the works are implemented in accordance with the Contractor agreement and the various construction/supply contracts.

h) WITNESS TESTS AND PRE-COMMISSIONING TRIALS

DMRC is responsible for monitoring interfaces and managing function and commissioning tests to verify that the system functions safely and efficiently and complies with all contract requirements.

The IQSC is responsible for witnessing tests and trials executed prior to commissioning the metro for public operations.

The IQSC shall:

- Witness all tests carried out on equipment & systems by the Project Contractor(s) and suppliers.
- Review and comment on the programme of Integrated System Testing (IST).
- Witness the IST and review IST test reports.
- Review and comment upon the Trial Running programme with particular emphasis on scenario exercises for emergency situations.
- Witness Trial Running and review related test reports.

i) REVIEW AND APPROVE SAFETY AND OPERATIONS PLAN

The IQSC shall review and approve the safety and Operational Plan prepared by the DMRC.

This plan must comply with the contractor's requirements and be in accordance with 'best industry practice'.

The review of the Safety and Operational Plans is an extremely important task that will involve the IQSC System Group and SHE Expert. The IQSC's effort will be led by the Metro Systems Operations Expert. The Plans are large documents and their development and review will both be time-consuming. It is important to note that the operational philosophy is a driver of the design of the metro and as such must be established early in the Project cycle. Therefore, upon mobilization, the IQSC will liaise closely with KMRL to develop a programme for preparation and review of the document so that it is developed according to design needs.

- j) The Safety and Operations Plan elements is expected to be a part of the performance requirements incorporated into the Contractor's Agreement, typically these would be as follows.

1. Safety Plan



- a. Safety Criteria
 - b. Component / Equipment Failures
 - c. Safety Criteria for Operations
 - d. Fire Safety
 - e. Electrical Safety
 - f. Vehicle Operation Safety
 - g. Emergency Evacuation from KMRL Station/Work site Premises.
2. Operations Manuals
- a. Rule Book
 - i. General Rules
 - ii. Legal Requirements
 - iii. Corporate and Individual Responsibilities
 - iv. Adherence to Rules and Orders
 - v. Staff Standards
 - b. Normal Operations Plan (OCC, Station, Depot)
 - i. Traffic Levels
 - ii. Frequency of Service
 - iii. Timetable Concept
 - iv. Special Occasions
 - v. Dispatching of Trains
 - vi. Station Operations
 - vii. Passenger Information
 - viii. Public Address Announcements
 - ix. Station Security
 - x. Fare Collection.
 - c. Degraded Operations Plan (OCC, Station, Depot)
 - i. Power Supply Failures
 - ii. Control Centre Failure
 - iii. Signaling Failures
 - iv. Telecommunications Failures
 - v. Rolling Stock Failures
 - vi. Track Failures
 - vii. Recovery Actions
 - viii. Blocked Line
 - ix. Station Related Failures
 - x. Trespassers on Track.
 - d. Emergency Operating Plans (OCC, Station, Depot)
 - i. Passenger Safety
 - ii. Liaison with External and Internal Emergency Services
 - iii. Incident Manager
 - iv. Line Blockage



- v. Controlled Evacuation
 - vi. Passenger Declared Emergency
 - vii. Fire on Train
 - viii. Bomb and Terrorist Threat
 - ix. Station Evacuation.
3. Organization and Staffing
- a. Organizational Structure
 - b. Job Descriptions
 - c. Personnel Requirements
 - d. Recruitment
 - e. Training Plan
 - f. Training Implementation
 - g. Quality and Certification of Staff
 - h. Staff Discipline.

The IQSC will require KMRL to submit these plans in stages as they are developed, with the first submission being the document outline. This outline will be immediately reviewed by the IQSC to ensure that all requirements are covered.

k) REVIEW OPERATIONS AND MAINTENANCE MANUALS AND DISASTER MANAGEMENT MANUAL

Operations and Maintenance Manuals (for Rolling Stock, Equipment and Systems)

Availability

Operations and Maintenance Manuals for installed equipment and systems must be available at the start of Integrated System Testing and preferably at the commencement of Function Testing. They are also required for staff training. The IQSC is required to review and approves all such manuals and will also ensure that KMRL/DMRC/contractors' programmes are consistent with this timing requirement.

Responsibility for Preparation

These manuals shall be prepared by the Contractors and approved by DMRC before being passed to the IQSC review and approval.

IQSC Review

The equipment O&M Manuals comprise of two parts – (i) operation manual and (ii) maintenance manual – and they must cover all aspects of the Project: civil/structural/architecture, building services, M&E, Rolling Stock (including Driver's Manual) and Depot. The IQSC shall review the documents:

Key components of the O&M Manual are:



- Asset List
- Spare Parts Lists and recommended spare parts holdings.

The IQSC will compare the recommended spares holdings with the spares requirements suggested by the RAMS Statements and with the reliability and maintainability data yielded by the Trial Running.

6.11 Essential Component of Safety Monitoring Plan

The IQSC shall evolve and administer a system of conducting SHE inspections and other risk management analysis on a periodical basis.

The purpose of SHE inspection is to identify any variation in construction activities and operations, machineries, plant and equipment and processes against the SHE Plan and its supplementary procedures and programs.

Following SHE inspections program shall be adopted by IQSC Consultant:

- i) Planned General Inspection
- ii) Routine Inspection
- iii) Specific Inspection
- iv) Other Inspection.

6.11.1 Specific Inspection

Specific inspections will be performed on activities without a predetermined date. Safety Engineer will perform inspections for ensuring whether the activities are executed in accordance with a general set of rules; method statement submitted or developed procedures.

The following are examples of what will be commonly performed as required on the construction site:

- i) Inspection performed before a heavy lifting operation.
- ii) Inspection performed before and after the entry of person into a confined space,
- iii) Inspection performed before and after a welding and gas cutting operation,
- iv) Inspection of formwork before concreting by formwork erector.

The list mentioned above is not exhaustive. The IQSC & Contractor shall ensure that a competent supervisor inspects all high-risk processes and activities.

6.11.2 Other Inspection

Other inspections include the following:

- i) Mandatory Inspections by Labour Department of Government.
- ii) Contractor's site SHE management team.

6.12 Monitoring of resources for SHE implementation

The IQSC will check that the persons deployed by the Contractor are adequate and qualified as specified in approved SHE manual.



6.12.1 Monitoring of Resources - The IQSC will ensure that the following PPEs are provided by the Contractor to workmen to protect against safety and/or health hazards. Primarily PPEs are:

- i) Head Protection (Safety helmets)
- ii) Foot Protection (Safety footwear, Gumboot, etc.)
- iii) Body Protection (High visibility clothing (waistcoat/jacket), Apron, etc.)
- iv) Personal fall protection (Full body harness, Rope-grip fall arrester, etc.)
- v) Eye Protection (Goggles, Welders glasses, etc.)
- vi) Hand Protection (Gloves, Finger coats, etc.)
- vii) Respiratory Protection. (Nose mask, Scabs', etc.)
- viii) Hearing Protection (Ear plugs, Ear muffs, etc.)

6.13 Documentation and Communication

IQSC will prepare an audit report and directly send it to KMRL within 7 days of conducting the audit. The Audit Report will contain:

- a) Executing summary - Based on the finalized checklists as written and the findings to KMRL by the audit team members. The audit leader will compile a concise and accurate summary of observations and findings.
- b) Introduction - This will contain basic information regarding the facilities of the organization audited, the specific audit dates (inclusive of those for preparation and post-audit activities).
- c) Principal positive findings - This will contain the summary of positive aspects as observed by the auditors. It will also contain highlights of those issue, which may warrant dissemination as best practice regarding methodology used or achievement.
- d) Audit Findings - All audit findings as detailed in the audit checklists shall be grouped together as priority 1 and 2 as detailed below in a separate listing.

Priority 1: Actions to rectify gaps or weakness should generally be implemented within a maximum of two weeks, if risk potential is high or unacceptable.

Priority 2: Actions should be generally implemented or rectified within a maximum of 3 – 4 weeks, which if not rectified would create a likelihood of minor injury or business loss.

6.14 Remedial Measures

- a) The IQSC shall inspect the site immediately after 14 days of conducting initial audit for checking the adequacy of implementation of items mentioned under priority 1 by the Contractor and shall submit a conformity / non-conformity report to KMRL.
- b) The auditor shall again inspect after 28 days of conducting initial audit for checking the adequacy of implementation of items mentioned under priority 2 by the Contractor and shall submit a conformity / non-conformity report to KMRL.
- c) In case of non-conformity of items mentioned by auditor, KMRL shall take necessary steps including stoppage of work and or imposing any penalty in order to ensure the item mentioned is implemented.



6.15 METHODOLOGY

6.15.1 Work Schedule

The IQSC services are required to be rendered for a period of atleast 3 years. This period may be extended by mutual agreement.

6.15.2 Deployment of Key Personnel

- a) Key Personnel shall be deployed on need basis and the work on the Assignment shall commence within 15 days of the Letter of Award of the Assignment.
- b) Formulation of QSMP - The QSMP shall be prepared and adopted within 21 days of Commencement of the Assignment.
- c) Even prior to the preparation and approval of the QSMP activities as envisaged shall commence concurrent to the work schedule of the Contractors within 21 days of the Letter of Award of the Assignment.

6.15.3 Monitoring Schedule

- d) The Schedule shall be detailed in the QSMP to be prepared by the IQSC, as envisaged in this RFP and as approved by KMRL. However, at all times during the duration of the assignment, the Work Schedule of the IQSC shall run concurrent to the respective activities being undertaken by the Contractors.
- e) The IQSC shall keep itself abreast of the midterm corrections and modifications in the activity schedules of the Contractors and adjust its monitoring schedule accordingly.



7 METHODOLOGY

7.1 Work Schedule

7.1.1 Deployment

7.1.1.1 Key Personnel shall be deployed as per RFP document and the work shall commence on the Assignment within 15 days of the Letter of Award of the Assignment.

7.1.2 **Formulation of QMP** – The QMP shall be prepared and adopted within 21 days of Commencement of the Assignment.

7.1.3 Monitoring Schedule

7.1.3.1 The Schedule shall be detailed in the QMP to be prepared by the IQSC, as envisaged in this RFP and as approved by KMRL. However, at all times during the duration of the assignment, the Work Schedule of the IQSC shall run concurrent to the respective activities being undertaken by the Executing Agency and/or Contractor.

7.1.3.2 IQSC shall keep itself abreast of the midterm corrections and modifications in the activity schedule of the EA and adjust its monitoring schedule accordingly.

7.2 Logistics

7.2.1 KMRL will provide free of cost furnished air-conditioned office space minimum area 1500 ft² (along with basic furniture, UPS and internet facilities) to the Key Personnel of the IQSC. The expenditure towards electricity, maintenance, safety & security including services of support staff are to be borne by IQSC.

7.2.2 KMRL will facilitate cooperation and assistance to IQSC by the Contractors including free access for the purpose of sampling of materials, works and/or for inspections of relevant drawings, works, laboratories, materials, goods, documentations, tools and tackles etc. for smooth execution of the duties of the IQSC.

7.2.3 KMRL through the Contractors /DMRC will provide all the contract agreement, drawings, manuals and any other document required for functioning of IQSC .

7.3 Key Personnel

7.3.1 The IQSC Team shall consist of the following key personnel (the 'Key Personnel') who shall discharge their respective responsibilities as specified below:

S.N	Position	Qualification	Experience
1	Team Leader*	Graduate in Civil or Electrical Engineering	20+ years in railway, out of which minimum 10 years in Metro/MRTS. Shall have worked in atleast 1 metro railway project.
2	Rolling Stock	Graduate in Electrical	15+ years in railway industry. Shall have



	Expert*	or Mechanical Engineering	experience of writing RS procurement specifications and managing/reviewing detailed design of RS in atleast one metro railway project.
3.	Power supply and DC third rail traction expert*	Graduate in Electrical engineering	10+ years in railway industry. Shall have experience of design of dc traction system and third rail system in atleast one metro railway or monorail project.
4.	AFC cum PSG Expert	Graduate in Electrical or Electronics engineering	10+ years in railway industry. Shall have experience of writing AFC/PSG procurement specifications and managing/reviewing detailed design of AFC/PSG in atleast one metro railway project.
5.	Signaling Expert*	Graduate in Electrical or Electronics Engineering	10+ years in railway industry. Shall have experience of writing Signaling procurement specifications and managing/reviewing detailed design of Signaling in atleast one metro railway project.
6.	Telecom Expert	Graduate in Communication or Electronics engineering	10+ years in railway industry. Shall have experience of writing Telecom system (including subsystems such as FOTS,PIS, PIDS,CCTV Telephone etc.) procurement specifications and managing/reviewing detailed design of Telecom System in atleast one metro railway project.
7.	Track cum Alignment expert*	Graduate in Civil or any other Engineering discipline	10+ years in railway industry. Shall have experience of detailed design/execution of track work in atleast one metro railway project.
8.	Project Planning and scheduling expert	Graduate in Civil Engineering	15+ years in railway industry. Shall have experience of Project Planning & scheduling in atleast one metro railway project.
9.	Station/viaduct layout Expert (2N0)	Graduate in Architectural/Civil	10+ years in railway industry. Shall have an experience of detailed design of elevated station in atleast one metro railway project totaling not less than 10 stations.
10.	Station E&M	Graduate in Electrical	10+ years in railway industry. Shall have



	expert	engineering	experience of detailed design of station E&M systems in atleast one metro railway projects totaling not less than 10 stations.
11.	Operation cum Manual Expert	Graduate in any engineering discipline	15+ years in railway industry. Shall have experience of planning of operation and maintenance in atleast one metro railway project.
12.	Depot Design cum depot M&P Expert	Graduate in any engineering discipline	15+ years in railway industry. Shall have experience of detailed design of metro depots in atleast one metro railway projects
13.	Engineers Quality (Civil) (6 Nos.)	B.E (Civil)	Minimum experience of 10 years in project of similar nature and in Quality Assurance
14	Engineers Quality (E&M) 1 No.	B.E.(Electrical)	Minimum experience of 10 years in projects of similar nature and in Quality Assurance in E&M
15.	Engineers Safety (Elect.) (1 No.)	B.E. in Elec. and specialization in safety	Minimum experience of 10 years in projects of similar nature including electrical safety
16.	Engineers (Civil)/Safety (6 No.)	B.E. in Civil and specialization in safety	Minimum experience of 10 years in projects of similar nature and safety monitoring for civil work.
17.	Engineer S&T Quality (1 No.)	B.E(electronics)	Minimum experience of 10 years in projects of similar nature and in Quality Assurance system in signaling
18.	Engineer Rolling Stock Quality (1 No.)	B.E (Electrical)	Minimum experience of 10 years in projects of similar nature and in Quality Assurance system in rolling stock.
19.	Chief Safety & Environment Expert*	Graduate with specialization in Safety	Minimum 10 years experience in Railway/MRTS/Metro

* Essential Key Positions:

Note :1 Indicative number and Indicative Man-months of Key Personnel, as stated in the RFP document are for the purpose of calculation of the Proposed Total Cost of the Assignment in the Financial Proposal.



Note :2 The number of 'Engineers' i.e Civil/Electrical/Mechanical shall be increased or reduced by the IQSC on advice of KMRL as per the demands of the Project with a notice of one month, notwithstanding the Indicative number and Indicative Man-months as given in Annexure-XI.

Note :3 KMRL reserves the right to reduce/increase the continuation of Experts at Kochi, including intermittent stay at Cochin.

- 7.3.2 The above team of Key Personnel of the IQSC shall conduct activities envisaged in the Scope of Work & project description covered in chapter 5 & 6 of this document and as per the mutually agreed QMP. The Key Personnel shall be based in Kochi at all times during the Assignment.
- 7.3.3 Wherever needed, the site office personnel of the IQSC shall be supported by the Head Office of IQSC for back office works at no additional cost to KMRL.
- 7.4 Substitution of Key Personnel
 - 7.4.1 Substitution of the Team Leader and essential key staff will not normally be considered except under compelling circumstances. In such a case substitution shall be allowed subject to equally or better qualified and experienced personnel being deployed to the satisfaction of KMRL. However, such substitution shall be permitted subject to reduction of .5% (half percent) of the Agreement Value each for team leader / essential key staff. In case of a second substitution, further .5% (half percent) deduction on the Agreement Value shall be made.
 - 7.4.2 With respect to other Key Personnel of the IQSC, substitution shall be allowed subject to equally or better qualified and experienced personnel being deployed to the satisfaction of KMRL.
 - 7.4.3 Also, should the performance of a Personnel be considered below par by KMRL, KMRL may direct the IQSC to for a replace the personnel to the satisfaction of KMRL.
 - 7.4.4 The reasons for any substitution as above shall be clearly recorded and conveyed to KMRL and such substitution shall essentially be to the satisfaction of KMRL.
- 7.5 Obligations of KMRL
 - KMRL will have the following Obligations:
 - 7.5.1 To fulfill the requirement with respect to Logistics as per Clause 7.2
 - 7.5.2 To intimate EA about the deployment of IQSC and validity of their operations.
 - 7.5.3 To approve one list of external laboratories and academic institutions for tests.
 - 7.5.4 To nominate a coordinator for the projects for interactions between IQSC, KMRL & the EA.
 - 7.5.5 Communication to IQSC regarding approval of any deviations/concessions/waivers from the contractual documents.
 - 7.5.6 IQSC (HQ team) may generally follow 6 day week schedule. However, site quality/safety team shall adjust weekly off in such a manner that atleast 50% staff is always available during those days.



8. TERMS OF PAYMENT

8.1. Total Cost of Assignment

- 8.1.1. **Cost of Key Personnel** – Man months for the purpose of calculation of the Cost of Key Personnel in the Financial Proposal is available in Appendix XI
- 8.1.2. **Overheads** – The Overheads in the Financial Proposal shall include all expenses incurred by the IQSC towards the Assignment, including, but not limited to, remunerations of support staff, office overheads, travel costs, insurance, *taxes (Other than service tax)* or any other expenses incurred by it in course of the assignment under this RFP.
- 8.1.3. **Total Cost of Assignment** - The Total Cost of Assignment as quoted in the Financial Proposal shall be the sum total of the above. This will only be for evaluation purpose, and the actual payment shall be made as per actual deployment as detailed in Article 8 para 3
- 8.1.4. **Service Tax** – Service Tax as applicable shall be paid extra by KMRL and shall not form a part of the Financial Proposal.

8.2 Mobilisation Advance

- 8.2.1. If sought by the IQSC, KMRL will pay against a 110% Bank Guarantee from a scheduled bank in India, which shall be adjusted at a rate of 10% of the said advance in subsequent monthly bills raised by the IQSC.

8.3 PAYMENT TERMS

- 8.3.1 The IQSC shall submit bills to KMRL on monthly basis.
- 8.3.2 The Manmonths for the purpose of billing shall be calculated on the basis of actual deployment of personnel, whether full or partial, within the billing period. Further, the payable for Overheads shall be calculated for the actual months of deployment within the billing period at the Agreement rate. For periods less than a month, calculation for fraction of a manmonth shall be done for actual days worked and payments shall be made on pro-rata basis accordingly.
- 8.3.3. Payments shall be released by KMRL after verification of the bills.
- 8.3.4. Payments shall be made on pro-rata basis for the actual period of the Assignment allowing for early completion, suspended period as well as extensions as and when applicable as detailed in the RFP Document.
- 8.3.5. All payments shall be made in Indian Rupees and shall be subject to applicable Indian laws deducting taxes at sources, if any as per tax laws.



8.3.6 KMRL will not be liable to pay any amount to the IQSC over and above the Agreed Rate of Assignment on this account. Further, no escalation shall be payable on the Agreement Rate.

8.3.7 KMRL may, by written notice, of suspension to the IQSC, suspend all payments to the IQSC hereunder if the IQSC shall be in breach of the Agreement or shall fail to perform any of its obligations under this Document, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the breach or failure, and (ii) shall provide an opportunity to the IQSC to remedy such breach or failure within a period not exceeding thirty (30) days after receipt by the IQSC of such notice of suspension.

8.4. Costs to be borne by KMRL

8.4.1. Costs of tests as per bill of the approved external laboratories for additional super-checks requested by KMRL. The expenditure towards transport/hotel stay, in case of witnessing of test outside Kochi, shall be governed by KMRL's Policy.

8.4.2 All the costs incidental and related to tests from onsite laboratories, whether scheduled tests, random tests or additional super-check tests shall be borne by the EA directly or through its Contractor



9. BIDDING PROCESS

9.1 Language

9.1.1 The Proposal with all accompanying documents and all communications in relation to or concerning the Selection Process shall be in English Language and strictly on the forms provided in this RFP. No supporting document or printed literature shall be submitted with the Proposal unless specifically asked for and in case any of these documents is in another language, it must be accompanied by an accurate translation of the relevant passages in English, in which case, for all purposes of interpretation of the Proposal, the translation in English shall prevail.

9.2 Submission of Tender

9.2.1 The Proposals in envelopes as indicted at Clause No.3.8.5 will be sealed in an outer envelope which will bear the address of KMRL, RFP Notice number, and the name and address of the Applicant. KMRL assumes no responsibility for the misplacement or premature opening of the contents of the Proposal submitted if it does not bear on top, the following,

“Do not open, except in presence of the Authorised Person of the Corporation”

9.2.2 The Applicant shall submit the Technical Proposal and Financial Proposal in separately sealed envelopes as indicated at Clause No. 3.8.5.

9.2.3. The aforesaid outer envelope will contain five separate sealed envelopes clearly marked the contents of each envelop as detailed in para 3.8.5 together with originals/copies of Documents required to be submitted along with this RFP.

9.2.4. The Proposal shall be typed or written in indelible ink and signed by the authorized signatory of the Applicant who shall initial each page, in blue ink. In case of printed and published Documents also, each page shall be initialed. All the alterations, omissions, additions, or any other amendments made to the Proposal shall be initialed by the authorized person(s) signing the Proposal.

9.2.5 Applicants should note and adhere to the Proposal Due Date, as specified in the RFP. No supplementary material will be entertained by KMRL, and the evaluation will be carried out only on the basis of Documents received by the closing time of Proposal Due Date. Applicants will ordinarily not be asked to provide additional material information or documents subsequent to the date of submission, and unsolicited material if submitted will be summarily rejected. However, KMRL reserves the right to seek clarifications.



9.3 Technical Proposal

9.3.1 Applicants shall submit the technical proposal in separate Covers marked as : “Cover No.2, Cover No. 3 and Cover No.4 “ as detailed in para 3.8.5 of this RFP. The details contained in these three cover forms “Technical Proposal”.

9.3.2 The Technical Proposal shall not include any financial information relating to the Financial Proposal.

9.4 Financial Proposal

9.4.1 Applicants shall submit the financial proposal in Cover No.5 as detailed in para 3.8.5 in the format of Financial Proposal (appendix XI) clearly indicating the total cost of the Assignment in both figures and words, in Indian Rupees, and signed by the Applicant’s authorized signatory.

9.4.2 While submitting the Financial Proposal, the Applicant shall ensure the following;

9.4.2.1 All the costs associated with the assignment shall be included in the Financial Proposal.

9.4.2.2 The total cost of the Assignment indicated in the Financial Proposal shall be without any condition attached or subject to any assumption, and shall be final and binding. In case any assumption or condition is indicated in the Financial Proposal, it shall be considered non-responsive and liable to be rejected.

9.4.2.3 The Financial Proposal shall take into account all expenses and tax liabilities (except service tax). For the avoidance of doubt, it is clarified that all taxes shall be deemed to be included in the costs shown under different items of the Financial Proposal. Further, all payments shall be subject to deduction of taxes at source as per applicable laws.

9.4.2.4 The service tax would be paid by KMRL over and above the Total Cost of Assignment at an applicable rates.

9.4.2.5 Costs shall be expressed in Indian Rupees.

10 EVALUATION PROCESS

10.1.1 Opening of Cover No.1

The tender opening committee shall open Cover No.1 to ascertain if the applicant has submitted requisite Cost of Tender/RFP and Bid Security amount. On confirmation of correctness of above two aspect, technical proposal Covers (cover No.2, Cover No.3 and Cover No.4) shall be opened.



10.1.2 Opening of Technical Proposal Covers (cover No.2, Cover No.3 and Cover No.4)

10.1.3 At the time specified in the Chapter Time Schedule, KMRL will open the Technical Proposal in the presence of Applicants' representatives who choose to attend the Following Location:

Office of the Managing Director,
Kochi Metro Rail Limited
8th Floor, Revenue Tower,
Park Avenue Road, Opp. Boat Jetty,
Kochi – 682011, Phone: 0484 2380980
E-mail: kochimetrorail2011@gmail.com

10.1.4. The Applicants' representatives who are present shall sign a register evidencing their attendance. Financial Proposals will remain unopened and will be held in the custody of KMRL until the time of opening of the Financial Proposals. The time and date and location of the opening of the Financial Proposals will be intimated in writing or by fax by KMRL to the technically qualified Applicants.

10.2 Preliminary Examination of Technical Proposals

10.2.1 KMRL will examine the technical Proposals to determine whether they are complete, whether the documents have been properly signed, whether the required Bid Security is enclosed, and whether the Proposals are generally in order. Any Proposals found to be non-responsive for any reason or not meeting the minimum levels of the performance or other criteria specified in the RFP Document will be rejected by KMRL and will not be included for further consideration.

10.3 Evaluation of Technical Proposals

10.3.1 KMRL will carry out a detailed evaluation of the Proposals in order to determine whether the Applicants are qualified and whether the technical aspects are substantially responsive to the requirements set forth in the RFP document. In order to reach such a determination, KMRL will examine the information supplied by the Applicants and other requirements in the RFP Document, taking into account the Work Plans, CVs and other details in the Technical Proposal of the Applicant.

10.3.2 KMRL may conduct clarification meetings with each or any Applicant to discuss any matters, technical or otherwise. The Applicant may be required to make presentations



on his methodology for carrying out the tasks. If considered necessary KMRL may like to visit projects being handled by the Applicant.

- 10.3.3 Evaluation of the Technical Proposals should enable KMRL to shortlist Technically Qualified Applicants

10.4 Invitation to Attend Opening of Financial Proposals

- 10.4.1 Technically Qualified Applicants shall be invited to attend the meeting for opening of the Financial Proposals.

10.5 Opening of Financial Proposals

- 10.5.1 The Invited Applicants' representatives who are present shall sign a register evidencing their attendance
- 10.5.2 The Applicants' names, the Proposal Prices, the total amount of each Proposal, and such other details as KMRL may consider appropriate, will be announced and recorded by KMRL at the opening.

10.6 Correction of Errors

- 10.6.1 Price Proposals determined to be substantially responsive will be checked by KMRL for any errors. In the event of any difference between figures and words, the amount indicated in words shall be taken into account.
- 10.6.2 In the event of a difference between the arithmetic total and the total shown in the Financial Proposal, the arithmetical total shall be taken into account.
- 10.6.3 If there is a discrepancy between the unit rate and the total cost that is obtained by multiplying the unit rate and quantity, the unit rate multiplied by quantity shall prevail and the total cost will be corrected unless in the opinion of KMRL there is an obvious misplacement of the decimal point in the unit rate, in which case the total cost as quoted will govern and the unit rate will be corrected.
- 10.6.4 The amount stated in the Form of Financial Proposal will be adjusted by KMRL in accordance with the above-mentioned point for the correction of errors if any, and shall be considered as binding upon the Applicant. If the Applicant does not accept the corrected amount of Proposal, its Proposal will be rejected, and the Bid Security shall be forfeited.

10.7 Evaluation of Financial Proposals



10.7.1 The Technically Qualified Applicant bidding the lowest Total Cost for the Assignment shall be selected (the 'Selected Applicant').



11. BID SECURITY

11.1 Amount

11.1.1 The Applicant shall furnish as part of its Proposal, a Bid Security of Rs 50 lakh (Rs. Fifty lakh)

11.2Format

11.2.1 The Bid Security may be deposited in the form of a Demand Draft payable at Kochi or Bank Guarantee issued by one of the Nationalized/Scheduled Banks in India in favour of the Kochi Metro Rail Ltd.

11.2.2 The Format of the Bank Guarantee for Bid Security is as given in Appendix – VIII Format of Bank Guarantee for Bid Security

11.3Refund of Bid Security

11.3.1 The Bank Guarantee shall be valid for a period of 180 days from the PDD. The Bid Security against DD shall be returnable not later than 120 days from PDD except in case of the shortlisted Applicant

11.3.2 Bid Security of the Selected Applicant will be released once the Applicant signs the Agreement and furnishes the 'Performance Guarantee'. Alternatively, the Bid Security of the Selected Applicant may be adjusted in the Performance Security by depositing the difference amount of Performance Guarantee.

11.4Interest on Bid Security

11.4.1 KMRL will not pay any interest on the Bid Security and the same shall be interest free.

11.5Forfeiture of Bid Security

11.5.1 The Applicant, by submitting its Application pursuant to this RFP, shall be deemed to have acknowledged that without prejudice to KML's any other right or remedy hereunder or in law or otherwise, the Bid Security shall be forfeited and appropriated by KMRL as the mutually agreed pre-estimated compensation and damage payable to KMRL for, inter alia, time, cost and effort KMRL in regard to the RFP including the consideration and evaluation of the Proposal under any or all of the following conditions:

11.5.1.1 If an Applicant engages in any of the wrong Practices specified in this RFP;



- 11.5.1.2 If an Applicant withdraws its Proposal during the period of its validity as specified in this RFP and as extended by the Applicant from time to time;
- 11.5.1.3 If, in the case of a Selected Applicant, the Applicant fails to sign the Agreement or commence the assignment as specified in the Chapter 13 Award of Assignment.
- 11.5.1.4 If the Selected Applicant fails to furnish the Performance Guarantee in time.
- 11.5.1.5 If the Applicant is found to have a Conflict of Interest.

11.6 **Arbitration** : Any dispute arising out of or in connection with this contract, including any question regarding its existence, validity or termination, shall be referred to and finally resolved by arbitration under the Indian Arbitration and Conciliation Act 1996 and its Rules. The seat of arbitration shall be Kochi. The governing law of the contract law shall be the laws of India.



12. DISQUALIFICATION

12.1 Disqualification of Applicants

KMRL may in its sole discretion and at any time during the processing of the Proposal disqualify the Applicant, if it has –

- 12.1.1 Failed to sign each page of the document as an undertaking to abide by the contents without any reservations whatsoever.
- 12.1.2 Submitted the Proposal after the date & time specified as the Proposal Due Date.
- 12.1.3 Submitted the Proposal without validity for at least 180 days
- 12.1.4 Submitted Proposal which is not accompanied by required documentation and Bid Security amount is a non-responsive.
- 12.1.5 Submitted more than one bid.
- 12.1.6 Failed to provide clarifications related thereto, when sought.
- 12.1.7 Made misleading or false representations in the forms, statements and attachments submitted in proof of the eligibility requirements.
- 12.1.8 Been found to have been convicted by a Court of Law or indicted or adverse orders passed by a regulatory Corporation which would cast a doubt on their ability to undertake the Consultancy.
- 12.1.9 Been found to have a record of poor performance such as abandoning works, not properly completing the contract, inordinately delaying completion, being involved in litigation or financial failures, etc.



12.1.10 Is found to have canvassed, influenced or attempted to influence in any manner the qualification or selection process, including without limitation, by offering bribes, illegal gratification, exercising threats and direct or indirect canvassing etc.

12.2 Disqualification of Selected Applicant /IQSC

KMRL may in its sole discretion and at any time during the course of the Agreement disqualify the Selected Applicant if the Applicant –

12.2.1 Is determined to have indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice directly or through its personnel.

12.2.2 Is found to have a Conflict of Interest with the KMRL.

12.2.3 Has substituted the Team Leader without the consent of KMRL, or has failed to satisfy KMRL on substitution of other key personnel.

12.2.4 Confidentiality

IQSC has to maintain utmost confidentiality as desired by KMRL. Any violation of confidentiality may attract disqualification by KMRL.



13. AWARD OF ASSIGNMENT

13.1 Letter of Award

13.1.1. Letter of Award –After selection, a Letter of Award (the “LOA”) shall be issued, in duplicate, by KMRL to the Selected Applicant and the Selected Applicant shall, within seven (7) days of the receipt of the LOA, sign and return the duplicate copy of the LOA in acknowledgement thereof. In the event the duplicate copy of the LOA duly signed by the Selected Applicant is not received by the stipulated date, KMRL may, unless it consents to extension of time for submission thereof, forfeit and appropriate the Bid Security of such Applicant for loss and damage suffered by it on account of failure of the Selected Applicant to acknowledge the LOA, and the next eligible applicant may be considered. The bid security of the selected applicant will be forfeited.

13.2 Execution of Agreement

13.2.1. After acknowledgement of the Letter of Award (LOA) as aforesaid by the Selected Applicant, it shall execute an Agreement **within fifteen (15) days of the LOA**, accepting the terms and conditions as contained in the RFP Document along with subsequent addenda and modifications issued by KMRL, on the format given in this RFP Document. The Selected Applicant shall not be entitled to seek any deviation in the Agreement.

13.3 Commencement of Assignment

13.3.1. The IQSC shall commence the Services **within fifteen (15) days of issue of LOA**. If the IQSC fails to either sign the Agreement as specified or commence the assignment as specified herein, KMRL may invite the next lowest bidding Applicant for negotiations. In such an even, the Bid Security of the ‘Selected Applicant’ shall be forfeited and appropriated in accordance with the provisions of Clause 11.5 of the RFP Document.

13.4 Modification of Agreement

13.4.1. No variation in or modification of the terms of the Agreement shall be made except by written amendment signed by both the parties i.e. KMRL and the IQSC.

13.5 Duration of Assignment

13.5.1. Stipulated Duration- The duration of the Assignment shall be approximately 3 Yr from the date of issue of LOA.



13.5.2. Extension- In case the Project as implemented by the EA extends beyond the stipulated duration the Assignment shall be extended at a mutually agreed rate.

13.5.3. Early Completion- In case the Project as implemented by the EA is completed before the stipulated duration , the Assignment of the IQSC too shall be termed completed.

13.6 Suspension of Assignment

13.6.1. If, for any reason whatsoever, the Project is temporarily suspended by the EA and/or KMRL, KMRL will convey temporary suspension of the Assignment in writing to the IQSC for which period, the IQSC shall fully or partially withdraw its deployment as advised by KMRL.

13.6.2. In case of Force Majeure or Suspension of work related to Project for a particular period, if the presence of the IQSC is not required and consequently the schedule gets extended, the referred period of the assignment shall be treated to be under suspension. Due to the period under suspension if the project exceeds its team, the assignment period shall be continued under the original terms and conditions of the Agreement.

13.7 Termination of Agreement

13.7.1. KMRL may, by not less than thirty (30) days' written notice of termination to the IQSM, terminate this Agreement if:

13.7.1.1 The IQSC fails to remedy any breach hereof or any failure in the performance of its obligations as specified in the Scope of Work, and fails to deliver the Deliverables as per the prescribed Time Schedule to the satisfaction of KMRL, as specified in the notice, within thirty (30) days of receipt of such notice of breach or within such further period as KMRL may subsequently grant in writing:

13.7.1.2 The IQSC becomes insolvent or bankrupt or enters into any agreement with its creditors for relief of debt or takes advantage of any law for the benefit of debtors or goes into liquidation or receivership whether compulsory or voluntary;

13.7.1.3 The IQSC submits to KMRL a statement which has a material effect on the rights, obligations or interests of KMRL and which the IQSC knows to be false:

13.7.1.4 any document, information, data or statement submitted by the IQSC in its Proposals, based on which the IQSC was considered eligible or successful, is found to be false, incorrect or misleading:

13.7.1.5 KMRL, in its sole discretion and for any reason whatsoever, decides to terminate this Agreement.



14.PERFORMANCE SECURITY AND LIQUIDITY DAMAGES

14.1 Performance Security

- 14.1.1.** The IQSC shall carry out the services in conformity with generally accepted professional and technically accepted norms relevant to such assignments that are required for the project and which are to the entire satisfaction of KMRL.
- 14.1.2.** KMRL will retain by way of performance security (the 'Performance Security'), 10% (ten percent) of all the amounts due and payable to the IQSC, to be appropriated against breach of the Agreement or for recovery of liquidated damages as specified herein.
- 14.1.3.** The IQSC may, in lieu of retention of the amounts as referred to above furnish or deposit either of the following;
- 14.1.3.1** A Bank Guarantee valid for 39 months from the Date of Agreement, substantially in the form specified at Appendix-IX- Format of Bank Guarantee for Performance Security, or
 - 14.1.3.2** A Demand Draft or Bankers' Cheque in favour of Kochi Metro Rail Ltd.' Payable at Kochi, India
- 14.1.4** The Bid Security deposited at the time of submission of Proposal may be adjusted towards Performance Security amount or alternatively the Applicant, may before taking the Bid Security back, deposit a fresh Performance Security. The Performance Security, amount shall in no case be less than the Bid Security.
- 14.1.5** In the event of any deficiency in services, the IQSC shall promptly take necessary action to resolve it, at no additional fees to KMRL.
- 14.1.6** No interest shall be paid by KMRL on the Performance Security deposit.
- 14.1.7** Failure of the IQSC to comply with the requirements of the Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the Performance Security.

14.2 Liquidated Damages

- 14.2.1. Liquidated Damages for delay** - In case of delay in execution of activities as defined in the QMP, liquidated damages not exceeding an amount equal to 1% of the bill of the month payable for the period under consideration shall be deducted for every day of delay. This shall be recovered from the IQSC by way of liquidated damages and shall be recovered by appropriation from the monthly payable or Performance Security or



otherwise. However, in case of delay due to reasons beyond the control of the IQSC, prior extension of time shall be sought from KMRL and the same may be granted.

14.2.2. Liquidated Damages for error/variation - in case any error or variation is detected in the reports submitted by the IQSC and such error or variation is the result of negligence or lack of due diligence on the part of the IQSC, the consequential damages thereof shall be quantified by KMRL in a reasonable manner and recovered from the IQSC by way of liquidated damages and shall be recovered by appropriation from the Performance Security or otherwise.

14.2.3. Total Liquidated Damages - The total liquidated damages on account of the above shall be subject to a maximum of 10% (ten percent) of the Agreement Value.

If any amount is appropriated towards LD from the Performance Security, the Performance security amount so reduced will be made good by the IQSC to meet the requirements of the RFP.

14.3 Penalty for deficiency in Services

14.3.1. In addition to the liquidated damages not amounting to penalty, as specified in Clause 14.2 warning may be issued to the IQSC for minor deficiencies on its part. In case of significant deficiencies in Services causing adverse effect on the Project or on the reputation of KMRL, other penal action including debarring for a specified period may also be initiated as per policy of KMRL/Govt. of India.

14.4 Encashment and Appropriation of Performance Security

14.4.1. KMRL will have the right to invoke and appropriate the proceeds of the Performance Security, in whole or in part, without notice to the IQSC in the event of a finding by KMRL of a breach of this Agreement or for recovery of liquidated damage as specified in this Clause 14.2 or Penalty as specified in Clause 14.3.

14.5 Release of Performance Security

14.5.1. The balance remaining out of the Performance Security shall be returned to the IQSC at the end of three months after the expiry of the Agreement.



15.GENERAL TERMS AND CONDITIONS

15.1 General

- 15.1.1.** While submitting the Technical Proposal, the Applicant shall, in particular, ensure that the Proposal is complete in all respects as per the requirements of this RFP Document.
- 15.1.2** On submission of the Proposal, entire contents of this RFP Document shall be deemed to be read and understood by the Applicant.
- 15.1.3** The Applicant shall sign on each page of this document while submitting the proposal in acceptance of the terms and conditions of this RFP document along with its addenda and corrigenda; and by signing so he shall undertake to abide by the contents therein without any reservations whatsoever.
- 15.1.4** Any condition imposed by the Applicant during the course of the selection process and later, through any form of correspondence or communication shall not be applicable, unless otherwise agreed to by KMRL.
- 15.1.5** KMRL, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to
- 15.1.5.1** Suspend and/or cancel the Selection Process and/or amend and/or supplement the Selection Process or modify the dates or any other terms and condition relating thereto;
 - 15.1.5.2** consult with any Applicant in order to receive clarification or further information.
 - 15.1.5.3** Retain any information and/or evidence submitted to KMRL, on behalf of and/or in relation to any Applicant;
 - 15.1.5.4** Independently verify, disqualify reject and/or accept any and all submissions or other information and/or evidence submitted by or on behalf of any Applicant.
- 15.1.6** It shall be deemed that by submitting the Proposal, the Applicant agrees and releases KMRL, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/or performance of any obligations hereunder, pursuant hereto and/or in connection herewith and waives any



and all rights and/or claims it may have in this respect, whether actual or contingent, whether present or future.

- 15.1.7** KMRL reserves the right to accept or reject in part or full any or all the Proposals without assigning any reasons whatsoever. KMRL reserves the right to accept any Proposal, and to annul the RFP process and reject all Proposal at any time prior to award of Assignment, without assigning reasons & without thereby incurring any liability to the affected Applicants on the grounds of KMRL's action.
- 15.1.8** No discussions or interface will be held with the Applicants whose Proposals have not been accepted.
- 15.1.9** The table of contents, headings or sub-headings in this Document are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Document.
- 15.1.10** Any Change in the constitution of the Applicant's company, etc. shall be notified forth with by the Applicant in writing to KMRL and such change shall not relieve any former member of the Applicants firm, etc., from any liability under the contract.
- 15.1.11** Payment shall be made in Indian Rupees only.
- 15.1.12** The applicant at no stage, especially if selected as the IQSC for this Assignment shall have a Conflict of Interest with KMRL and any breach hereof shall constitute a breach of the Agreement thereby.
- 15.1.13** KMRL reserves the right to verify all statements, information and documents, submitted by the Applicant in response to the RFP. Failure of KMRL to undertake such verification shall not relieve the Applicant of its obligations or liabilities hereunder nor will it affect any rights of KMRL thereunder.

15.2 Damages and Losses

- 15.2.1.** The IQSC shall be liable for ensuring at its own cost the insurance towards its personnel, equipment and other resources employed by it in execution of the Assignment.
- 15.2.2** KMRL will not be responsible for liability arising out of any accidents, casualties, damages, thefts, fires and other incidental mishaps suffered by the IQSC in execution of this Assignment.
- 15.2.3** The IQSC shall be responsible for assessing and monitoring the fitness of its personnel, equipment and other resources employed by it in execution of the Assignment.

15.3 Proprietary data



15.3.1. All documents and other information provided by KMRL or submitted by an Applicant to KMRL shall remain the property of KMRL. Applicants and the IQSC, as the case may be, are to treat all information as strictly confidential. KMRL will not return any Proposal or any information related thereto. All information collected, analyzed, processed or in whatever manner provided by the IQSC to KMRL in relation to the Assignment shall be the property of KMRL.

15.3.2 The IQSC shall be vicariously liable to indemnify KMRL in case of any misuse of data/information by the Applicant, deliberate or otherwise, which comes into the knowledge of KMRL during the performance or currency of the Agreement.

15.4 Location

15.4.1. The Services shall be performed at the site of the Project in accordance with the provisions of RFP and at such locations as are incidental thereto, including the offices of the IQSC.

15.5 Governing law and jurisdiction

15.5.1. The Selection Process and the Assignment/ Agreement shall be governed by, and construed in accordance with the laws of India and the Courts at Ernakulam, Kerala shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the Selection Process.

15.6 Force Majeure

15.6.1. For the purposes of this Document, “Force Majeure” means an event which is beyond the reasonable control of a Party, and which makes a Party’s performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent). Further, for the purpose of this document, Force majeure shall not include:

15.6.1.1 any event which is caused by the negligence or intentional action of a IQSC or such IQSC Sub Contractors, or agents or employees,



- 15.6.1.2** any event which a diligent IQSC could reasonably have been expected to both (A) take into account at the time of the conclusion of this Agreement and (B) avoid or overcome in the carrying out of its obligations hereunder.
- 15.6.1.3** insufficiency of funds or failure to make any payment required hereunder.
- 15.6.2** The failure of a Party to fulfill any of its obligations hereunder shall not be considered to be a breach of, or default under this Agreement in so far as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of duly carrying out the terms and conditions of this Agreement.
- 15.6.3** A Party affected by an event of Force Majeure shall take all reasonable measures to remove such Party's inability to fulfill its obligations hereunder with a minimum of delay. Further, the Parties shall take all reasonable measures to minimize the consequences of any event of Force Majeure.
- 15.6.4** A Party affected by an event of Force Majeure shall promptly notify the other Party of such event as soon as possible, and in any event not later than fourteen (14) days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give notice of the restoration of normal conditions as soon as possible (within 7 days).
- 15.6.5.** Notwithstanding the provisions of contract, the Applicant shall not be liable for forfeiture of its bid security, performance security, or disqualification, or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure.



16.FORMATS FOR TECHNICAL PROPOSAL

TECHNICAL PROPOSAL

(APPENDIX – 1 TO APPEND-X)



Appendix – 1 Letter of Proposal

(On Applicant's letter head)

(Date and Reference)

To,

The Managing Director
Kochi Metro Rail Limited
8th Floor, Revenue Tower,
Park Avenue Road,
Opp. Boat Jetty, Kochi – 682011

Sub: Appointment of Independent Quality and Safety Consultant

Dear Sir,

With reference to your RFP Document dated....., I/We, having examined all relevant documents and understood their contents, hereby submit our Proposal for selection as Independent Quality and Safety Consultants for Kochi Metro Rail Project. The proposal is unconditional and unqualified.

1. All information provided in the Proposal and in the Appendices is true and correct and all documents accompanying such Proposal are true copies of their respective originals.
2. This statement is made for the express purpose of appointment as the Consultant for the aforesaid Project.
3. I/We shall make available to KMRL any additional information it may deem necessary or require for supplementing or authenticating the Proposal.
4. I/We agree to the terms and conditions of the above referred RFP Document, including any Addenda and Corrigenda unequivocally without any reservations on any account whatsoever.
5. I/We certify that in the last three years, we have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial tribunal or a judicial pronouncement or arbitration award against the Applicant, nor been expelled from any project or contract nor have had any contract terminated for breach on our part.
6. The non refundable tender/RFP fee Rs. 50000(Rupees fifty thousand) in the form of a Demand Draft/Pay Order as per the prescribed format, is attached in accordance with the RFP document.
7. The Financial Proposal is being submitted in a separate cover. This Technical Proposal read with the Financial Proposal shall constitute the proposal which shall be binding on us.

In witness thereof, I/We submit this Proposal under and in accordance with the terms of the RFP Document.

Yours faithfully,

(Signature, name and designation of the Authorized Signatory)

(Name and seal of the Applicant)



Appendix –II Form for Particulars of the Applicant

(To be filled on the letter head of the Applicant, duly signed with official Seal of the Applicant)

Title of Assignment: Independent Quality and Safety Consultant for Kochi Metro Rail Project

COMPANY DETAILS	
Name of the Company or Firm	
Legal Status of Incorporation	
Registered Address	
Year of Incorporation	Year of Commencement of Business
Principal Place of Business	
Brief description of the Company including details of its main lines of business	
DETAIL OF AUTHORISED SIGNATORY	
Name	
Designation	
Address	
Phone No.	Mobile No.
Fax No.	
E-mail:	

(Signature, name and designation of the Authorized Signatory)

For and on behalf of _____

Note: Enclose certificate of incorporation and Memorandum & Articles of Association



Appendix-III Power of Attorney

Know all men by these presents, we,(name of firm and address of the registered office) do hereby constitute, nominate, appoint and authorize Mr/Ms.....son/daughter/wife and presently residing at....., who is presently employed with us and holding position ofas our true and lawful attorney (hereinafter referred to as the “Authorized Representative”) to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Proposal for and selection as the Independent Quality, Safety and Interface Consultant for Kochi Metro Rail Project, proposed to be developed by the Kochi Metro Rail Ltd. Including but not limited to signing and submission of all applications, proposals and other documents and writings, participating in pre-bid and other conferences and providing information/responses to KMRL, representing us in all matters before KMRL, signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with KMRL in all matters in connection with or relating to or arising out of our Proposal for the said Project and/or upon award thereof to us till the entering into of the Agreement with KMRL.

AND, we do hereby agree to ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Authorized Representative pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Authorized Representative in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THISDAY OF, 20**

For.....

(Signature, name, designation and address)

Witness:

1.

2. Notarized

Accepted



.....

(Signature, name, designation and address of the Attorney)

Notes:

The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure. The Power of Attorney should be executed on a non-Judicial stamp paper in accordance with the Stamp Act and duly notarized by a notary public.

Wherever required, the Applicant should submit for verification the extract of the charter documents and other documents such as a resolution/power of attorney in favour of the person executing this power of Attorney for the delegation of power hereunder on behalf of the Applicant.

For a Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney is being issued. However, Applicants from countries that have signed the Hague Legislation Convention 1961 need not get their Power of Attorney legalized by the Indian Embassy if it carries a conforming Apostille certificate.



Appendix – IV Form for Proposed Methodology and Work Plan

1. Applicant Company Name

2. Understanding the Work¹

Please attach additional sheets

3. The proposed methodology and work plan shall be described as follows

Please attach additional sheets, if needed as per details required below²:

a)	Steps for Preparation of QMP, SHE and Interface
b)	Proposed Development of Key Personnel and Resources (including Key Personnel, Support Personnel and logistics) and methodology for operating the “Scope of work” by each key personnel

¹ The Applicant shall clearly state its understanding of the consultancy Work and also highlight its important aspects. The Applicant shall supplement various requirements of the Work and also make precise suggestions that it considers would bring more clarity and assist in achieving the Objectives laid down in the RFP document.

² Lengthy and out of context responses may be avoided.



Appendix-V- Form for Company Experience

- 1 Applicant Company Name
- 2 Summary of Projects of Similar Nature (add additional sheets if needed)

S. No.	Name of Project	Year and Date of Completion	Estimated capital cost of Project (in Rs. Cr.)	Estimated Consultant fee Received (in Rs. Cr.)



Appendix-VI- Form for Summary of Key Personnel Proposed to be deployed for IQSC in KMRL

1. Applicant Company Name
2. Summary of Particulars of Key Personnel

Sl. No	Designation of Key Personnel	Name	Educational Qualification	Length of Professional Experience	Present Employment		No. of Eligible Assignments	Experience in Metro related Rail Projects/Industry	Remarks
					Name of Firm	Employed Since			
1									
2									
3									
4									
5									
6									



Appendix-VII Form for Curriculum Vitae (CV) of Key Personnel

1. Name of Applicant Company
2. Proposed Role in the Assignment
3. Personal Details of Personnel

Name of Personnel:	
Date of Birth:	
Nationality:	
Educational Qualifications:	
Employment Record	Current Assignment (Role and Period since working)
	Previous Assignment (List in reverse order every employment held)



4. Project Related Experience of Personnel

S. No.	Name of Project	Estimated capital cost of project (in Rs Cr./US\$ million)	Name of firm for which the Key Personnel worked	Designation of the Key Personnel on the project	Date of completion of project assignment	Mandays spent
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

5. Certification:

- i. I am willing to work on the Project and I will be available for entire duration / listed man months of the Project assignment as required.
- ii. I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications and my experience.

(Signature and name of the Professional)

Place.....

(Signature and name of the Authorised Signatory of the Applicant)

Each page of the CV shall be signed in ink by both the Personnel concerned and by the Authorised Representative of the Applicant firm along with the seal of the firm.



Appendix – VIII Format of Bank Guarantee for Bid Security

Bank Guarantee for Bid Security

B.G.No.

Dated:

(to be stamped in accordance with Stamp Act)

To

The Managing Director
Kochi Metro Rail Limited
8th Floor, Revenue Tower,
Park Avenue Road,
Opp. Boat Jetty, Kochi – 682011

1. In consideration of you, (KOCHI METRO RAIL LTD), having office at 8th Floor, Revenue Tower, Park Avenue Road, Opp. Boat Jetty, Kochi – 682011, Kerala, India, (hereinafter referred to as 'KMRL', which expression shall unless it be repugnant to the subject or context thereof include its administrators, successors and assigns having agreed to receive the Proposal of _____(Firm registered under the _____Act, _____) and having its registered office at _____(hereinafter referred to as the 'Applicant' which expression shall unless it be repugnant to the subject or context thereof include its/their executors, administrators, successors and assigns, for the IQSC for the Kochi Metro Rail Project (hereinafter referred to as the 'Project') pursuant to the RFP Document datedissued in respect of the Project, we (Name of the Bank _____) having our registered office at _____ and one of its branches at _____(hereinafter referred to as the 'Bank'), at the request of the Applicant, do hereby in terms of relevant clause of the RFP Document, irrevocable, unconditionally and without reservation guarantee the due and faithful fulfillment and compliance of the terms and conditions of the RFP Documents by the said Applicant and unconditionally and irrevocably undertake to pay forthwith to KMRL an amount of(hereinafter referred to as 'Guarantee') as our primary obligation without any demur, reservation, recourse, contest or protest and without reference to the Applicant if the Applicant shall fail to fulfill or comply with all or any of the terms and conditions contained in the said RFP Documents.
2. Any written demand made by KMRL stating that the Applicant is in default of the due and faithful fulfillment and compliance with the terms and conditions contained in the RFP Documents shall be final, conclusive and binding on the Bank.
3. We, the Bank, do hereby unconditionally undertake to pay the amounts due and payable under this Guarantee without any demur, reservation, recourse, contest and protest and without any reference to the Applicant or any other person and irrespective of whether the

Signature of the Applicant

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claim of KMRL is disputed by the Applicant or not, merely on the first demand from KMRL stating that the amount claimed is due to KMRL by reason of failure of the Applicant to fulfill and comply with the terms and conditions contained in the RFP Documents including failure of the said Applicant to keep its proposal open during the proposal validity period as set forth in the said RFP Documents for any reason whatsoever. Any such demand made on the Bank shall be conclusive as regards amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs.....(Rupeesonly)

4. This Guarantee shall be irrevocable and remain in full force for a period of 180 (one hundred and eighty) days from the Proposal Due Date of the referred RFP or for such extended period as may be mutually agreed between KMRL and the Applicant, and agreed to by the Bank, and shall continue to be enforceable till all amounts under this Guarantee have been paid.
5. We, the Bank, further agree that KMRL shall be the sole judge to decide as to whether the Applicant is in default of due and faithful fulfillment and compliance with the terms and conditions contained in the RFP Documents including, inter alia, the failure of the Applicant to keep its Proposal open during the Proposal validity period set forth in the said RFP Documents, and the decision of KMRL that the Applicant is in default as aforesaid shall be final and binding on us, notwithstanding any differences between KMRL and the Applicant or any dispute pending before any court, tribunal, arbitrator or any other.
6. The Guarantee shall not be affected by any change in the constitution or winding up of the applicant or the Bank or any absorption, merger or amalgamation of the Applicant or the Bank with any other person.
7. In order to give full effect to this Guarantee, KMRL shall be entitled to treat the Bank as the Principal debtor. KMRL shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee from time to time to vary any of the terms and conditions contained in the said RFP Documents or to extend time for submission of the Proposal or the Proposal validity period or the period for conveying acceptance of letter of award by the Applicant or the period for fulfillment and compliance.
8. Any notice by way of request, demand or otherwise hereunder shall be sufficiently given or made if addressed to the Bank and sent by courier or by registered mail to the Bank at the address set forth herein.
9. We undertake to make the payment on receipt of your notice of claim on us addressed to [name of Bank along with branch address] and delivered at our above branch which shall be deemed to have been duly authorized to receive the said notice of claim.
10. It shall not be necessary for KMRL to proceed against the said Applicant before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank, notwithstanding any other security which KMRL may have obtained from the said Applicant



or any other person and which shall, at the time when proceedings are taken against the Bank hereunder, be outstanding or unrealized.

11. We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of KMRL in writing.

12. The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorized and has full power to execute this Guarantee for and on behalf of the Bank.

13. For the avoidance of doubt, the Bank's liability under this Guarantee shall be restricted to Rs.50,00,000 (Rupees fifty lac only). The Bank shall be liable to pay the said amount or any part thereof only if KMRL serves a written claim on the Bank in accordance with paragraph 9 hereof, on or before [----- (indicate date falling 180 days after the proposal Due Date)].

Dated this----- day of ----- 2013, at-----

Signed and delivered by ----- Bank

By the hand of Mr/Ms.-----, its----- and authorized official

Authorized Official

(Signature of the Authorized Signatory)

(Official Seal)

(with Bank Stamp)

The stamp papers of appropriate value shall be purchased in the name of bank which issues the 'Bank Guarantee'.

The bank guarantee shall be from a Nationalized / Scheduled Indian Bank acceptable to KMRL. Bank guarantee furnished by Applicant shall be confirmed by any Nationalized / Scheduled Bank in India at the cost of the Applicant.



Apendix-IX-Format of Bank Guarantee for Performance Security

B.G.No.

Dated:

(to be stamped in accordance with Stamp Act)

Bank Guarantee for Performance security

The Managing Director,
Kochi Metro Rail Limited
8th Floor, Revenue Tower, Park Avenue,
Kochi, Kerala, India – 682 011
Phone: 91 484 2380 980
E-mail:kochimetrorail2011@gmail.com

In consideration of Managing Director, Kochi Metro Rail Ltd, acting on behalf of the Kochi Metro Rail Ltd (hereafter referred as 'KMRL', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) having awarded to M/s....., having its office at.....(hereinafter referred as the 'IQSC' which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns), vide KMRL's Agreement no..... dated valued at Rs..... (Rupees.....), (hereinafter referred to as the 'Agreement') an Assignment for Kochi Metro Rail Project, and the IQSC having agreed to furnish a Bank Guarantee amounting to Rs..... (Rupees.....)to KMRL for the due performance of the said Agreement.

We, (hereinafter referred to as the 'Bank') at the request of the IQSC do hereby undertake to pay to KMRL an amount not exceeding Rs..... (Rupees.....)against any loss or damage caused to or suffered or would be caused to or suffered by KMRL by reason of any breach by the said IQSC of any of the terms or conditions contained in the said Agreement.

1. We,(indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on a demand from the KMRL stating that the amount/claimed is due by way of loss of damage caused to or would be caused to or suffered by KMRL by reason or breach by the said IQSC of any of the terms or conditions contained in the said Agreement or by reason of the IQSC's failure to perform the said Agreement.
2. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs..... (Rupees.....).
3. We undertake to pay to KMRL, any money so demanded notwithstanding any dispute or disputes raised by the IQSC in any suit or proceeding pending before any court or tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for



payment thereunder and the IQSC shall have no claim against us for making such payment.

4. We---- (indicate the name of Bank) further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues to KMRL under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till KMRL certifies that the terms and conditions of the said agreement have been fully and properly carried out by the said IQSC and accordingly discharges this Guarantee. Unless a demand or claim under this Guarantee is made on us in writing on or before a period of one year from the date of this Guarantee, we shall be discharged from all liability under this Guarantee thereafter.
5. We, (indicate the name of Bank) further agree with KMRL that KMRL shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said IQSC from time to time or to postpone for any time or from time to time any of the powers exercisable by KMRL against the said IQSC and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being guaranteed to the said IQSC or for any forbearance, act or omission on the part of KMRL or any indulgence by KMRL to the said IQSC or any such matter or thing whatsoever which under the law relating to sureties would, but for this provision have the effect of so relieving us.
6. This Guarantee will not be discharged due to any change in the constitution of the Bank or the IQSC(s).
7. We,----- (indicate the name of Bank) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of KMRL in writing.
8. For the avoidance of doubt, the Bank's liability under this Guarantee shall be restricted to Rs.----- (Rupees-----) only. The Bank shall be liable to pay the said amount or any part thereof only if KMRL serves a written claim on the Bank in accordance with paragraph 2 hereof, on or before----- (indicate date falling 18 months after the date of this Guarantee).

Date, the ---- day of ----- 20

For-----

(name of Bank)

(Signature, Name and Designation of the Authorized Signatory)

Seal of the Bank:

NOTES:

The Stamp papers of appropriate value shall be purchased in the name of bank which issues the 'Bank Guarantee'.



The bank guarantee shall be from a Nationalized / Scheduled Indian Bank or reputed Foreign Commercial Bank acceptable to KMRL for Foreign Applicant. Bank guarantee furnished by Applicant shall be confirmed by any Nationalized /Scheduled Bank of India.

The Bank Guarantee should contain the name, designation and code number of the officer(s) signing the Guarantee.

The address, telephone no. and other details of the Head Office of the Bank as well as of issuing Branch should be mentioned on the covering letter of issuing Branch.



Appendix-X-Format of Agreement

(to be stamped in accordance with Stamp Act)

This AGREEMENT (hereinafter called the “agreement”) is made on the ----- day of month of ----- 2013, between, on the one hand, KOCHI METRO RAIL LTD. (hereinafter called the “KMRL”) and, on the other hand,----- (hereinafter called the “IQSC”).

WHEREAS

- (A) KMRL requires Quality Monitoring Services as defined in the RFP document attached to this Agreement (hereinafter called the “Services”).
- (B) The IQSC, having represented to KMRL that they have the required professional skills, personnel and technical resources have been selected to provide the Services on the terms and conditions set forth in this Agreement.

NOW THEREFORE the parties hereby agree as follows:

1. The following documents hereto shall be deemed to form an integral part of this Agreement:
 - (i) The RFP Document in its entirety along with all its Appendices etc.
 - (ii) Addenda and / or Corrigenda to the RFP Document, if any issued by KMRL.
 - (iii) The Letter of Award issued by KMRL in favour of the IQSC.
 2. The mutual rights and obligations of KMRL and the IQSC shall be as set forth in the above documents, and in particular:
 - a) The IQSC shall provide the services as per the scope of work as specified in the RFP document and shall fulfill its obligations towards KMRL specified therein in conformity with the time schedule stated therein. Further, that the IQSC shall perform the Services and carry out its obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe and effective equipment, machinery, materials and methods. The IQSC shall always act, in respect of any matter relating to this Agreement or to the Services, as a faithful adviser to KMRL, and shall at all times support and safeguard KMRL legitimate interests in any dealings with Third Parties.
 - b) KMRL will make payments to the IQSC in accordance with the Letter of Award.
- IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be signed in their respective names as of the day and year first above written.

Authorized Signatory
For Kochi Metro Rail Ltd.

For----- (IQSM)

Authorized Signatory

Witness:

- a) Name and Address
- b) Name and Address



17.FORMATS FOR FINANCIAL PROPOSAL

FINANCIAL PROPOSAL (APPENDIX-XI)



Appendix – XI Format for Financial Proposal

Applicant Company : _____

Financial Proposal :

Item No.	Description*	Man Month Rate to be filled by the Applicant In INR	No. of personnel	Local/ Expatriate	Total Man months	Total Amount for duration In INR
A	COST OF KEY PERSONNEL					
1.	Team Leader		1	Local	36	
2.	Rolling stock expert		1	Expatriate	24	
3.	Power supply & dc 3 rd rail expert		1	Local	24	
4.	Signaling expert		1	Expatriate	24	
5.	AFC cum PSG Expert		1	Local	12	
6.	Telecom Expert		1	Local	24	
7.	Track cum Alignment Expert		1	Local	30	
8.	Construction monitoring & Project Planning expert		1	Local	36	
9.	Station/Viaduct design expert		2**	Local	40	
10.	Station E & M expert			Local	20	
11.	Operation cum Manual expert		1	Local	15	
12.	Depot design cum depot M&P expert		1	Local	24	
13.	Civil Engineers : Quality		6	Local	144	
14.	E&M Quality Engineer		1	Local	24	
15.	Electrical Safety Engineer		1	Local	24	
16.	Civil Safety Engineer		6	Local	144	



17.	S&T Quality Engineer		1	Local	24	
18.	Rolling Stock Quality Engineer		1	Local	24	
19.	Chief Safety & Environment Expert		1	Expatriate	24	
B. TOTAL COST OF KEY PERSONNEL (IN INR) = P						
C.	OVERHEADS FOR 36 MONTHS					
TOTAL OVERHEADS (IN INR) = Q						
C	TOTAL COST OF ASSIGNMENT (IN INR)= P + Q					
	IN FIGURES					
	IN WORDS					

** one design expert and one architect expert

Overheads - The Overheads in the Financial Proposal shall include all expenses incurred by the IQSC towards the Assignment, including, but not limited to, remunerations of support staff, office overheads, travel costs, insurance, taxes (other than service tax) or any other expenses incurred by it in course of the assignment under this RFP.

Total Cost of Assignment - The Total Cost of Assignment as quoted in the Financial Proposal shall be the sum total of the above. This will only be for evaluation purpose, and the actual payment shall be made as detailed in the Clause 8.3

Service Tax- Service Tax as applicable shall be paid extra by KMRL, and shall not form a part of the Proposal.

We agree to abide by all the terms and conditions mentioned in the RFP Document, all pages of which have been read, understood and hence signed by us in token of acceptance of the Terms and Conditions mentioned therein.

Date:

Signature of Applicant

Company Seal: