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**Ministry of Finance**

Republic of Maldives

## **TERMS OF REFERNCE (TOR)**

## **for**

## **PROJECT MANAGEMENT CONSULTANCY FOR DESIGN & BUILD OF WATER SUPPLY & SEWERAGE FACILITIES (06 packages)**

**TES/2020/C-008**

Issued by: National Tender

## **SHORT-LISTING OF CONSULTANTS**

## **PROJECT MANAGEMENT CONSULTANCY FOR DESIGN & BUILD OF WATER SUPPLY & SEWERAGE FACILITIES (06 packages)**

## 1. INSTRUCTIONS TO CONSULTANTS

* 1. The projects are packaged into 06 packages as specified in section 4 of this document. The consultant may submit expression of interest for one or more packages.
  2. The scope of services includes project management, contract administration and Construction supervision of water supply and sewerage infrastructure project as listed above. A detailed terms of reference (TOR) is provided under section 04 of this document.

1.3 The consultant shall enclose one (1) original and one (1) copy of the documents in a sealed envelope which shall:

a) bear the name and address of the Consultant.

b) be delivered by hand or through courier/registered mail or email to address mentioned in request for Expression of Interest.

c) be clearly marked “Application for Short-listing for “Project Management Consultancy Services for {Insert project names of focus islands}”

1.4 The Document shall be prepared in English Language.

1.5 Consultants must respond to all mandatory requirements and provide complete information as advised in this document. Any lapses to provide essential information may result in dis-qualification of the consultant

1.6 **Deadline for Submission of Documents**: Documents shall be submitted to the address mentioned in the EOI, no later than the date and time mentioned in the EOI. The Client may, at its discretion, extend the deadline for the submission of documents by amending the Prequalification Document, and in which case all rights and obligations of the Client and consultant subject to the previous deadline shall thereafter be subject to the deadline as extended.

1.7 **Documents to be submitted:** The Consultant must submit the following documents;

1. In case of single entity, articles of incorporation or constitution of the legal entity.
2. In case of JV or association, letter of intent to form JV or association.
3. Authorization to represent the firm or JV/Association.
4. Completion certificates to demonstrate the Consultant’s eligibility under clause 2.2 of this document.

1.8 **Evaluation**: Consultant’s general experience, as demonstrated in the responses in the prescribed forms will be evaluated as per evaluation criteria given in the document. The Client reserves the right to waive minor deviations, if these don’t materially affect the capability of an applicant to perform the contract. In case of Joint Venture, Consortium or Association, collective experience will be considered.

1.9 **Clarification of documents**: To assist in the evaluation of information, the Client may, at its discretion, ask any consultant for a clarification of any information which shall be submitted within a stated reasonable period of time. Any request for clarification shall be in writing. If any consultant does not provide clarifications of the information requested by the date and time set in the Client’s request for clarification then application of the consultant may be rejected.

1.10 **Verification of the documents**: Verification of the information provided by the pre-qualified/ shortlisted consultant in the submissions for prequalification may be made. In case the information is found to be wrong or incorrect in any material way or consultant is found to be lacking in the capability or resources to successfully perform the contract, then it shall not be pre-qualified.

## 2. EVALUATION & QUALIFICATION CRITERIA: BASED ON PASS/FAIL SYSTEM

2.1 The Applicant must be a local firm. Joint Venture or Association with international firms may be formed to enhance the capacity of the applicant. However, the lead party must be a local firm. When submitting EOI, the JV must nominate and authorize the lead party.

2.2 **The Consultant shall not be part of more than one JV/Association which is submitting proposals under this project.**

2.3 The Applicant must demonstrate that it meets the following requirement as a single entity or collectively as a JV or Association.

1. **General Consultancy Experience**

Experience in Engineering Consultancy services. Consultant must have successfully/substantially completed at least 03 Engineering Consultancy Projects in the last 10 years.

## 3. FORMS

**FORM 1- Company Profile**

All individual firms and each partner of a joint venture applying for prequalification are requested to complete the information in this form.

|  |  |
| --- | --- |
| 1 | Name of firm (legal):  (In case of Joint Venture (JV), legal name of each member |
| 2 | Head Office address: |
| 3 | Telephone  Fax  Email address |
| 4 | Place of Incorporation/Registration:  Year of Incorporation/Registration: |
| 5 | Applicant’s authorized representative:  Name:  Telephone:  Email: |

*The following documents must be submitted:*

1. *In case of single entity, articles of incorporation or constitution of the legal entity named above.*
2. *In case of JV or association, letter of intent to form JV or association.*
3. *Authorization to represent the firm or JV/Association.*

*{Using the format below, provide information on assignments which your firm, associate or JV Partner, has successfully/substantially completed, to demonstrate eligibility under general and particular experience, as set under section II of this document}*

**FORM 2- Consultant’s Experience**

|  |  |
| --- | --- |
| Assignment name: | Approx. value of the contract (in MVR): |
| Country:  Location within country: | Duration of assignment (months): |
| Name of Client: | Total No of staff-months of the assignment: |
| Address of the Client: | Approx. value of the services provided by your firm under the contract (in MVR): |
| Start date (month/year):  Completion date (month/year): | No of professional staff-months provided by associated Consultants: |
| Name of associated Consultants, if any: | Name of senior professional staff of your firm involved and functions performed (indicate most significant profiles such as Project Director/Coordinator, Team Leader): |
| Narrative description of Project: | |
| Description of actual services provided by your staff within the assignment: | |

Firm’s Name:

## TERMS OF REFERNCE (TOR)

**Project Management Consultancy Services for Water Supply** **and Sewerage Projects, Maldives**

# 4.1 INTRODUCTION

The Ministry of Finance, on behalf of the Ministry of National Planning, Housing and Infrastructure (MNPHI) (hereinafter called “the Client”) is seeking the assistance of a qualified and competent consulting firm and intends to apply part of the proceeds from the Government PSIP Budget for the following services: **Project Management Consultancy for Water Supply and Sewerage Facilities Projects - Package 1 to 6, Maldives**

# BACKGROUND

The Maldives consist of 1190 low-lying coral islands spread over an area of 90,000 km2 in the Indian Ocean. Nearly 200 islands are inhabited, around 90 islands are resorts, and the rest are uninhabited. There are 26 geographical atolls which are grouped into 20 administrative atolls.

The project entails construction of water supply and/or sewerage facilities in 35 islands of Maldives, as listed under section 03 of this TOR. To execute the works, Design and Build basis contracts have been awarded to contractors during the year 2019. A total of 08 Contractors are engaged across 35 contracts. At the time of issuing this TOR, Detailed Design of the all the projects has been completed and works are underway in some project sites. The components of the water supply project include water distribution network, rainwater collection and conveyance network, boreholes, Reverse Osmosis (RO) plants with pretreatment and post treatment, RO/Admin Building, Solar PV on the rooftop of RO/Admin building. rainwater treatment plant, storage tanks, brine outfall and ancillary works. The components of sewerage projects include gravity sewer network, sewage pumping stations, pressure/pumping main, sea outfall and ancillary works.

# FOCUS ISLANDS

**Package 1**

|  |  |
| --- | --- |
| 1 | Design and Build for Water Supply and Sewerage Facilities in B. Hithaadhoo |
| 2 | Design and Build for Water Supply and Sewerage Facilities in R. Rasgatheem |
| 3 | Design and Build for Water Supply in R. Alifushi |
| 4 | Design and Build for Water Supply in Sh. Kanditheemu |
| 5 | Design and Build for Sewerage Facilities in Sh. Foakaidhoo |
| 6 | Design and Build for Water Supply and Sewerage Facilities in Th. Vandhoo |

**Package 2**

|  |  |
| --- | --- |
| 1 | Design and Build for Water Supply and Sewerage Facilities in R. Vaadhoo |
| 2 | Design and Build for Water Supply and Sewerage Facilities in R. Angolhitheemu |
| 3 | Design and Build for Water Supply and Sewerage Facilities in Hdh. Kurinbi |
| 4 | Design and Build for Water Supply in Hdh. Nolhivaram |
| 5 | Design and Build for Water Supply and Sewerage Facilities in Sh. Komandoo |
| 6 | Design and Build for Water Supply and Sewerage Facilities in Th. Kandoodhoo |

**Package 3**

|  |  |
| --- | --- |
| 1 | Design and Build for Water Supply and Sewerage Facilities in R. Inguraidhoo |
| 2 | Design and Build for Water Supply in L. Maavah |
| 3 | Design and Build for Water Supply and Sewerage Facilities in F. Magoodhoo |
| 4 | Design and Build for Water Supply and Sewerage Facilities in K. Gulhi |
| 5 | Design and Build for Sewerage Facilities in Sh. Funadhoo newly developed area |
| 6 | Design and Build for Water Supply and Sewerage Facilities in Th. Gaadhiffushi |

**Package 4**

|  |  |
| --- | --- |
| 1 | Design and Build Basis for Water and Sewerage Facilities in N. Maalhendhoo |
| 2 | Design and Build for Water Supply and Sewerage Facilities in N.Kudafari |
| 3 | Design and Build for Water Supply and Sewerage Facilities in B. Goidhoo |
| 4 | Design and Build for Water Supply and Sewerage Facilities in R. Kinolhas |
| 5 | Design and Build for Water Supply in Adh. Hanyaameedhoo |

**Package 5**

|  |  |
| --- | --- |
| 1 | Design and Build for Water Supply and Sewerage Facilities in Hdh. Finey |
| 2 | Design and Build for Water Supply in Hdh. Naivaadhoo |
| 3 | Design and Build for Water Supply and Sewerage Facilities in Ha. Filladhoo |
| 4 | Design and Build for Water Supply and Sewerage Facilities in Ha. Uligamu |
| 5 | Design and Build for Water Supply and Sewerage Facilities in Sh. Maroshi |
| 6 | Design and Build for Water Supply and Sewerage Facilities in Sh. Narudhoo |

**Package 6**

|  |  |
| --- | --- |
| 1 | Design and Build for Water Supply and Sewerage Facilities in N. Lhohi |
| 2 | Design and Build for Water Supply and Sewerage Facilities in N. Kendhikulhudhoo |
| 3 | Design and Build for Water Supply in N. Holhudhoo |
| 4 | Design and Build for Water Supply and Sewerage Facilities in Th. Kinbidhoo |
| 5 | Design and Build for Water Supply and Sewerage Facilities in Ga. Kanduhulhudoo |
| 6 | Design and Build for Water Supply and Sewerage Facilities in Sh. Maaungoodhoo |

# SCOPE OF WORKS

**4.4.1 General Scope**

The consultant shall undertake full administration of the Contract(s) and supervise the works, also covering the Defects Liability Period (DLP) of contractors, assuming the role of the “Engineer” as defined in the FIDIC Conditions of Contract for Plant and Design-Build Contract First Edition (1999 Yellow Book). This shall include supervision of Contractors works for compliance with specifications and detailed design, review and approval of Contractor’s submittals, tracking actual progress against the required progress, certification of Contractor’s payments among the others.

* + 1. **Specific Scope**

1. Review and approval of Contractor’s key staff and labor proposals including replacements.
2. Review and approval of Contractor’s work schedule including updated schedules.
3. Material Approval: Materials required for the works shall be checked, compared against technical specifications and design requirements and approved by the Consultant.
4. Approval of Shop drawings: The consultants will review and approve shop drawings prepared by the contractor before execution of works.
5. Day to Day supervision: The consultant will monitor day to day work progress of Contractor and ensure compliance with detailed design drawings, technical specifications and best engineering practices. The consultant should check if all the necessary approvals and permits to carry out the works are obtained and maintained by the contractor.
6. Coordination Meetings: The Consultant will organize and hold regular meeting with project stakeholders including site meeting with island Councils and progress meetings with the Contractor and Client.
7. Daily records: The Consultant will maintain daily progress records, records of weather, Contractor’s staff on site, equipment, machineries and material inventory.
8. Preparation of payment certificates – The consultant will establish a work measurement mechanism and prepare payment certificates.
9. Supervision of field surveys: The Consultants will supervise all the field surveys carried out by the contractor.
10. A Quality Control and Quality Assurance Plan will be developed by the Consultants to ensure that the structures are built and equipment installed in conformity with the Contractual Specifications, approved drawings, standards, good engineering practices.
11. Review and approve Health, Safety and Environmental Management plan prepared by the contractor and monitor contractor’s compliance with the requirements. Any safety and security incident at site shall be reported to the client.
12. Evaluation of contractual claims including variations, time extension claims and assisting and advising the Client on all matters pertaining to the contract including initial disputes with contractors.
13. Issue instructions to the Contractor in matters relating to execution of the project, including instructions to rectify defects, non-conformance reports etc and monitor and record compliance status of the contractor.

***Works commissioning***

The Consultants will implement Works commissioning including:

1. Supervising the testing and commissioning of the works and preparing the Taking over Certificate.
2. Preparing the Completion Report which will be based on the record maintained during work supervision phase. It will include the environmental completion report which will be submitted to MNPHI/PMU for compliance with initial recommendations.
3. Implement Shop Inspection of Electromechanical Equipment: The Consultants will check the manufacturing of equipment and will attend tests of main items for acceptance as and when necessary. These tests concern mechanical tests and chemical analyses, routing tests and standard tests, dimensional checks and Non-destructive tests.
4. During construction stage the contractor will provide on-the-job training to the selected counterpart staff from the beginning of construction works. The consultant shall work with contractor to formulate a training curriculum and obtain approval from the client. The records of trainees should be kept and reported to the client.
5. Review of ‘As-Built Drawings’. The Consultants will review and approve the ‘As-Built Drawings’ prepared by the Contractor.
6. Review of Operation and Maintenance Manual: The consultant will review the operation and maintenance manual when prepared by the contractor.

***Defects Liability Period of Contractors***

1. The Consultant will carry out quarterly inspections during the one-year defects liability period and instruct accordingly the contractors with regard to outstanding works and defects. After this period and satisfactory inspections, the Performance Certificate will be issued.

# PROJECT TEAM & INDICATIVE STAFFING REQUIREMENTS

**4.5.1 Key Staffs**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | **Post** | **Qualification** | **Professional Experience** | **Specific Experience** |
| 1 | Project Manager  (Team leader) | Minimum Bachelor’s Degree in Civil/Environmental Engineering, Project management or related field. | 7 years | At least 07 years’ experience in Contract Administration and Project Management of Construction projects with substantial supervisory and management responsibility.  Experience Managing water and Sewerage Infrastructure projects will be an added advantage  Professional qualification /training in Construction law/Claim Management will be an added advantage. |
| 2 | Sewerage/Water Engineer | Minimum Bachelor’s Degree in Civil/Environmental Engineering. | 5 years | At least 05 years’ experience in designing water and/or sewerage infrastructure projects. |
| 3 | Project Engineer | Minimum Bachelor’s Degree in Civil/Environmental Engineering or related field. | 3 years | Experience in Project Management of Construction projects.  Experience working in Water and/or sewerage infrastructure projects will be an added advantage. |
| 3 | Electro-Mechanical Engineer | Minimum Bachelor’s Degree in Electrical /Mechanical/Electro-Mechanical Engineering. | 5 years | Experience in designing electromechanical components of water and sewerage infrastructure projects will be an added advantage |
| 4 | Field Engineer | Minimum Bachelor’s Degree in Civil/Environmental Engineering | 5 years | At least 03 years’ Experience in site supervision/design of water and/or sewerage infrastructure projects.  Experience working in Maldives will be an added advantage. |

**4.5.2 Indicative Staffing Requirement of Key staffs**

|  |  |  |  |
| --- | --- | --- | --- |
| # | **Post** | **Total No** | **Indicative input (man-months)** |
| 1 | Project Manager  (Team leader) | 1 for each Package | 16 man-months for each package |
| 2 | Sewerage/Water Engineer | 1 for each Package | 08 man-months for each package |
| 3 | Project Engineer | 1 for each package | 16 man-months for each package |
| 4 | Electro-Mechanical Engineer | 1 for each Package | 04 man-months for each package |
| 5 | Resident Engineer | 1 for each Island | Package 1 - 96 man-months  Package 2 - 96 man-months  Package 3 - 96 man-months  Package 4 – 80 man-months  Package 5 – 96 man-months  Package 6 – 96 man-months |

* The above key staffs should be based in Male’ except Field Engineers who will be based in the project island.
* If the Consultant is submitting proposal for more than 1 package, the consultant may propose same person for the posts Project Manager, Sewerage/Water Engineer and Electro-Mechanical Engineer. The Client reserves the right to finalize this requirement before award of contract, and the consultant will be requested to propose additional staff for the aforementioned positions, where required.
* Project Engineer cannot be repeated across any package.
* Field Engineer cannot be repeated across any island.

**4.5.3 Non-Key Staffs**

In addition to the above-mentioned key staffs, the consultant may propose Non-Key staffs such as quantity surveyors, Contract Management Specialist etc. The Consultant should also indicate the number of man-months for each proposed non-key staff.

# EXPERIENCE OF THE FIRM

To be eligible for this assignment, the Consultant must have successfully/substantially completed at least 03 Engineering Consultancy Projects in the last 10 years.

Specific Experience in Design of Water and/or Sewerage Infrastructure projects will be an added advantage.

Specific Experience in Construction Supervision of Infrastructure projects will be an added advantage.

# 4.7 EQUIPMENT, LOGISTICS AND FACILITIES

The Consultants shall establish and maintain a site office at project site(s) and ensure that the staffs are adequately supported and equipped in order to carry out their obligations under the contract. The Consultant shall meet the full costs for the supply of the teams including all travels, remuneration, insurance, emergency medical aid, facilities and all else necessary for the competent operation of their teams.

# PAYMENT

Payments will be in accordance with the schedule specified below;

|  |  |  |
| --- | --- | --- |
| **DESCRIPTION** | **ALLOCATION** | **REQUIREMENT** |
| **Construction Supervision Phase** | As per invoice | Submission of Monthly Report |
| Submission of Invoice and supporting documents (time sheets, receipts of reimbursable expenditures etc.) in the specified format |
|  | | |
| **DLP Phase** | As per invoice | Upon submission of quarterly inspection report for defects notification during defects liability period. |

# REPORTING REQUIREMENTS

The consultants shall complete the following deliverables and submit the following reports;

|  |  |  |
| --- | --- | --- |
| **#** | **Deliverable** | **Submission Deadline** |
| 1 | Weekly progress reports | At the end of every week, after the contractor is mobilized on site |
| 2 | Monthly Progress reports | 10th of the following Month |
| 3 | Quarterly inspection Report | At the end of each quarter of the Defects Liability Period. |
| 4 | Testing and Commissioning Report | At the end of testing and commissioning of the respective project |
| 5 | Final Project Completion Report | At the end of Defects Liability Period. |

# DURATION OF THE ASSIGNMENT

The period of total engagement will be 16 months for Construction supervision phase and 12 months DLP phase.