**Section 4**

**BIDDING FORMS**

**PART C – TECHNICAL PROPOSAL**

# 4.2Technical Proposal

The requirements of this section has been set as a combined requirement for the Contracts (lots) specified under Invitation to Bid bearing reference (IUL)13-K/13/2020/52. The bidder may disregard the requirements which is not relevant to the Lot(s) for which the bidder is submitting Bids.

## 4.2.1 INITIAL CONCEPTUAL DESIGN

*The bidder should submit a concept design which indicates the basis of their financial proposals. The Concept design report should include the following;*

1. *Brief description of the island including the demographic data.*
2. *Estimated water demand for current, 15 years, and 35 years, including domestic and institutional/commercial demand*
3. *Sizing of RO plant and storage tanks*
4. *Estimated rainwater network length (collected from public buildings)*
5. *Estimated water distribution network length*
6. *Process flow diagram indicating the complete treatment process of RO and Rain water treatment*
7. *Layout of proposed RO/Administration Building*
8. *Estimated number of Sewage Pumping stations.*
9. *Estimated length of gravity sewerage network*

## 4.2.2 Method Statement

*The method statement should outline how the bidder intends to execute the works, clearly indicating the* ***method of execution*** *and* ***allocation of key experts, support staffs, laborers, sub-contractors/suppliers and equipment/machineries*** *for each activity. The following key components of the scope of works should be covered in the method statement.*

1. *Preliminary surveys*
2. *Concept design*
3. *Topographic and Bathymetric Surveys*
4. *Environmental Impact Assessment (EIA)*
5. *Detailed Design*
6. *Gravity Sewer network pipe laying and testing*
7. *Construction of Sewage Pumping Stations*
8. *Construction of Sea outfall*
9. *Water distribution network pipe laying and pressure testing*
10. *Supply and Installation of RO plants and rainwater treatment plants.*
11. *Training of Operators*
12. *Final Testing and Commissioning of the facilities*
13. *Documentations upon handover*
14. *Arrangements to be undertaken during defects liability period*

## **4.2.3 DESIGN SCHEDULE (SURVEY, EIA & DETAILED DESIGN)**

*[Required in Microsoft Project Format]*

*The section 1 of the project, Survey, EIA and design should be completed within* ***4 months of commencement****. The design schedule should indicate duration of each deliverable as specified under employer’s requirement- Survey and design requirements. Additionally, submission date of each key document (land allocation, concept design, EIA and detailed design) along with review period for the employer should be incorporated into the schedule.*

## **4.2.4 CONSTRUCTION SCHEDULE**

*[Required in Microsoft Project Format]*

*The section 2 of the project, should be completed within the durations stipulated below, from the date of taking-over of the section 1 by the Employer.*

***Duration:***

*Water and Sewerage projects: Within 18 Months including Survey, EIA and Detailed Design period*

*Water Project(s): Within 14 Months including Survey, EIA and Detailed Design period*

*Sewerage Project(s): Within 15 Months including Survey, EIA and Detailed Design period*

## 4.2.5 RESOURCE ALLOCATION PLAN

*Detailed resource allocation plan in the sample format given below*

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Resources** | M1 | M2 | M3 | M4 | M5 | M6 | M7 | M8 | M9 | M10 | … |
| Key Experts and Labor |  |  |  |  |  |  |  |  |  |  |  |
| Project Manager |  |  |  |  |  |  |  |  |  |  |  |
| Design Engineer |  |  |  |  |  |  |  |  |  |  |  |
| Electro-Mechanical Engineer |  |  |  |  |  |  |  |  |  |  |  |
| EIA specialist |  |  |  |  |  |  |  |  |  |  |  |
| Surveyor |  |  |  |  |  |  |  |  |  |  |  |
| Site Engineer |  |  |  |  |  |  |  |  |  |  |  |
| … |  |  |  |  |  |  |  |  |  |  |  |
| Laborers (skilled/unskilled) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Total** |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Equipments** |  |  |  |  |  |  |  |  |  |  |  |
| Equipment 1 |  |  |  |  |  |  |  |  |  |  |  |
| .. |  |  |  |  |  |  |  |  |  |  |  |
| .. |  |  |  |  |  |  |  |  |  |  |  |
| .. |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

## 4.2.6 Personnel

Bidders should provide the names of suitably qualified personnel to meet the requirements specified in Section 3 (Evaluation and Qualification Criteria). The data on their experience should be supplied using the Form below for each candidate.

Form PER – 1: Proposed Personnel

|  |  |
| --- | --- |
| 1. | **Title of position\*** |
|  | **Name** |
| **2.** | **Title of position\*** |
|  | **Name** |
| **3.** | **Title of position\*** |
|  | **Name** |
| **3.** | **Title of position\*** |
|  | **Name** |
| **4.** | **Title of position\*** |
|  | **Name** |
| **5.** | **Title of position\*** |
|  | **Name** |

\*As listed in Section 3 (Evaluation and Qualification Criteria).

Form PER – 2: Resume of Proposed Personnel

|  |  |  |
| --- | --- | --- |
| **Position** | | |
| **Personnel information** | **Name** | **Date of birth** |
|  | **Professional qualifications** | |
| **Present employment** | **Name of employer** | |
|  | **Address of employer** | |
|  | **Telephone** | **Contact (manager / personnel officer)** |
|  | **Fax** | **E-mail** |
|  | **Job title** | **Years with present employer** |
|  | **Signature of the Personnel** |  |

Summarize professional experience in reverse chronological order. Indicate particular **technical and managerial experience relevant** to the project.

|  |  |  |
| --- | --- | --- |
| **From** | **To** | Company / Project / Position / Relevant technical and management experience |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## 4.2.7 Equipment

The Bidder shall provide adequate information to demonstrate clearly that it has the capability to provide the required equipment to undertake the works as specified under Employers requirements. A separate Form shall be prepared for each item of equipment proposed.

|  |  |  |
| --- | --- | --- |
| **Equipment Information** | **Name of the Equipment** | |
| **Name of manufacturer** | **Model and power rating** |
|  | **Capacity** | **Year of manufacture** |
| **Current Status** | **Current location** | |
|  | **Details of current commitments** | |
|  |  | |
| **Source** | **Indicate source of the equipment**  **o Owned o Rented o Leased o Specially manufactured** | |

Omit the following information for equipment owned by the Bidder.

|  |  |  |
| --- | --- | --- |
| **Owner** | **Name of owner** | |
|  | **Address of owner** | |
|  |  | |
|  | **Telephone** | **Contact name and title** |
|  | **Fax** | **Telex** |
| **Agreements** | **Details of rental / lease / manufacture agreements specific to the project** | |
|  |  | |
|  |  | |
|  |  | |

## 4.2.8 Proposed Subcontractors/Manufacturers for Major Items of Plant and Services

The following Subcontractors and/or manufacturers are proposed for carrying out the item of the facilities indicated. Bidders are free to propose more than one for each item

|  |  |  |  |
| --- | --- | --- | --- |
| S. No. | Major Items of Plant/works | Proposed Subcontractors/Manufacturers | Nationality |
| 1 |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| 6 |  |  |  |
| 7 |  |  |  |
| 8 |  |  |  |
| 9 |  |  |  |
| 10 |  |  |  |
| 11 |  |  |  |
| 12 |  |  |  |
| 13 |  |  |  |
| 14 |  |  |  |
| 15 |  |  |  |
| 16 |  |  |  |

## 4.2.9 Time Schedule (DELETED)

To be used by Bidder when alternative Time for Completion is invited in ITB 13.2.

**Schedule of Technical Deviations**

Technical deviation in specifications, Design parameters, Capacities etc. shall be clearly brought out in this schedule with justifications.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | Clause Reference and section of bid document | As proposed in Bid document | As proposed  by Bidder | Justification for change |

We hereby undertake that the bid is strictly in conformity with the bid document except for the deviations mentioned above. Deviations, if any, found elsewhere in our bid, may be considered withdrawn without any implications.

# 4.3 Technical Schedules

## 4.3.1 Technical schedule-TS16 – Employer’s Requirement Compliance declaration by the Bidder

Declaration of Specifications

We undertake to make suitable modifications to the design and specifications of the plant and equipment required to fulfil the bid document specifications during the review of the detailed design submission (after award of work) as per the stipulations.

It is also confirmed that there is no deviations and variance (Specifications, Drawings, Terms and Conditions etc.) from the bid document. We confirm that our Bid is strictly as per Bid Document.

Signature

(Authorised Signatory)

## TECHNICAL Schedule 4.3.2 - Sub Contractor’s Qualification (DelETED)

1. Design and Construction of Water Supply and Sewerage Facilities under Contractor Finance

The Sub Contractor shall provide all the information/data as required in Clause 3.6 – Qualification Criteria for Sub Contractors/Manufacturers of Section 3 by using all the similar forms/schedules as listed above used by the Bidder.

## 4.3.4 Technical schedule – Employer’s Requirement Compliance declaration by the Sub contractor (DELETED)

Declaration of Specifications

We undertake to make suitable modifications to the design and specifications of the RO plant and equipment required to fulfil the bid document specifications during the review of the detailed design submission (after award of work) as per the stipulations.

It is also confirmed that there is no deviations and variance (Specifications, Drawings, Terms and Conditions etc.) from the bid document. We confirm that our submittals are strictly as per Bid Document.

Signature

(Authorised Signatory)

Essentiality Certificate

Government of Maldives

XXXXXXX

TO WHOM IT MAY CONCERN

This is to certify that the work of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Package No. & Name of work) \_\_\_\_\_\_\_\_\_ has been awarded to \_\_\_\_\_\_\_\_\_\_\_\_(Name of Contractor)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_amount to MRF.\_\_\_\_\_\_\_\_\_\_\_\_(Amount of Contract Agreement)\_\_\_\_\_\_\_\_\_\_\_\_\_\_only by Ministry of National Planning and Infrastructure, Government of Maldives and that this project has duly been approved by Government of Maldives and funded by the same.. The Project is being implemented by the Ministry National Planning and Infrastructure, Government of Maldives from XXXXXX to XXXXXXX.

It is certified that M/S\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Name of Contractor) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for the above project requires to purchase \_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Quantity of Material and name of material) \_\_\_\_\_\_\_\_\_\_\_under work \_\_\_\_\_\_\_\_\_\_\_\_ (Package No. & Name of work) \_\_\_\_\_\_\_\_\_\_\_.

It is further certified that the aforesaid material is required for the execution of the said project.

The validity of this certificate is from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_\_ (Construction Duration as per Agreement).

(Name)