**Section 4**

**-Technical Proposals of Water systems of project islands**

# 4.2Technical Proposal

## 4.2.1 Site Organization

Required in Narrative Format

## 4.2.2 Method Statement

Required in Narrative Format

## 4.2.3 Mobilization Schedule

In Microsoft Project Format

## 4.2.4 Construction Schedule

In Microsoft Project format

## 4.2.5 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** |
| **4.** | **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** |

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 |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## 4.2.6 Equipment

The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section 3 (Evaluation and Qualification Criteria). A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder.

|  |  |  |
| --- | --- | --- |
| **Equipment Information** | **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** | |
|  |  | |
|  |  | |
|  |  | |

## 4.2.7 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 and Services | Proposed Subcontractors/Manufacturers | Nationality |
| 1 |  |  |  |

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

Manufacturer's Authorization

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The Bidder shall include it in its bid, if so indicated in the BDS.]

Date: [insert date (as day, month and year) of Bid Submission]

ICB No.: [insert number of bidding process]

To: [insert complete name of Employer]

WHEREAS

We [***insert complete name of Manufacturer or Manufacturer’s authorized agent***], who are official manufacturers or agent authorized by the manufacturer of [***insert type of goods manufactured***], having factories at [insert full address of Manufacturer’s factories], do hereby authorize [***insert complete name of Bidder***] to submit a bid the purpose of which is to provide the following goods, manufactured by us [***insert name and or brief description of the goods***], and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 27 of the General Conditions of Contract, with respect to the goods offered by the above firm.

Signed: [insert signature(s) of authorized representative(s) of the Manufacturer]

Name: [insert complete name(s) of authorized representative(s) of the Manufacturer]

Title: [insert title]

Duly authorized to sign this Authorization on behalf of: [***insert complete name of Bidder***]

Dated on \_\_\_\_\_\_\_\_\_\_\_\_ day of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_ [***insert date of signing***]

## 4.2.8 Time Schedule

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.

## 4.2.9 Schedule of Performance Guarantees

### Table-I: ENERGY CONSUMPTION FOR REVERSE OSMOSIS PLANT

|  |  |  |
| --- | --- | --- |
| **No.** | **RO Plant** | **KWH** |
| 1 | XXXX |  |
| ….. | XXXX |  |
| ......... | XXXX |  |

Country of Origin Declaration Form

|  |  |  |
| --- | --- | --- |
| Item | Description | Country |
|  |  |  |
|  |  |  |
|  |  |  |

# 4.3 Schedule of Technical Data for water supply Works

General Notes:

The Bidder shall:

1. Complete the schedule for each of the water supply item.

2. Shall provide Manufacturer’s Authorization for each of the item separately.

3. Shall provide technical literature/specifications of each of the item.

4. The following schedules are to be completed by the Contractor for materials and equipment proposed to be supplied in compliance with the technical Specifications

##### ITEM: RO Plant Electricity DIESEL GENERATOR SET

1. RO Plant Stand-By Generator

1.1 Maker’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.2 Type / Reference No. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Operational output of electric generator (KVA) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Number of phases \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.5 Power cable length (m) and gauge \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.6 Generator weight (kg) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(including fuel tank, etc. when empty)

1.7 Fuel tank capacity (litres) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.8 Operating powers source \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.9 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Stand-By Generator Transporting Details

2.1 Trailers details \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.2 Maker’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.3 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Additional Information

Further information which manufacture / supplier considers important and should be considered in assessing this tender but which has not been specifically mentioned above shall be set out below:

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

SIGNATURE OF TENDERER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FOR THE FIRM OF\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Bidder shall provide all the general information i.e. technical literature/specifications and Manufacturer’s Authorization for each of the Pumping Station Electricity Generating Set.

##### ITEM: Raw Water Feed pump

1. Raw Water Feed Pump

1.1 Pump Maker’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.2 Pump Type / Reference No. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Operational Discharge (m3/hr) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Operational Head (m) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.5 Discharge connection diameter \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.6 Power cable length (m) and gauge \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.7 Motor rating (voltage / phase / kW) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.8 Motor speed (at 50 Hz) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.9 Pump weight (kg) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.10 Level control type(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.11 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Additional Information

Further information which manufacture / supplier considers important and should be considered in assessing this tender but which has not been specifically mentioned above shall be set out below:

SIGNATURE OF TENDERER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FOR THE FIRM OF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Bidder shall provide the entire general information i.e. technical schedule, technical literature and manufacturer’s authorization for each of the Raw Water Feed Pump.

##### ITEM: dosing pump

1. Dosing Pump

1.1 Pump Maker’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.2 Pump Type / Reference No. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Operational Discharge (m3/hr) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Operational Head (m) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.5 Discharge connection diameter \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.6 Power cable length (m) and gauge \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.7 Motor rating (voltage / phase / kW) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.8 Motor speed (at 50 Hz) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.9 Pump weight (kg) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.10 Level control type(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.11 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Additional Information

Further information which manufacture / supplier considers important and should be considered in assessing this tender but which has not been specifically mentioned above shall be set out below:

SIGNATURE OF TENDERER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FOR THE FIRM OF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Bidder shall provide the entire general information i.e. technical schedule, technical literature and manufacturer’s authorization for Dosing Pump.

##### ITEM: high pressure pump

1. High Pressure Pump

1.1 Pump Maker’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.2 Pump Type / Reference No. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Operational Discharge (m3/hr) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Operational Head (m) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.5 Discharge connection diameter \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.6 Power cable length (m) and gauge \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.7 Motor rating (voltage / phase / kW) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.8 Motor speed (at 50 Hz) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.9 Pump weight (kg) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.10 Level control type(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.11 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Additional Information

Further information which manufacture / supplier considers important and should be considered in assessing this tender but which has not been specifically mentioned above shall be set out below:

SIGNATURE OF TENDERER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FOR THE FIRM OF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Bidder shall provide the entire general information i.e. technical schedule, technical literature and manufacturer’s authorization for High Pressure Pump.

##### ITEM: Carbon Filter

1. Carbon Filter

1.1 Standard to which manufactured \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Manufacturer’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. PROTECTIVE COATING

2.1 Coating Material Outside \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.2 Coating Material Inside \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Additional Information

Further information which manufacture / supplier considers important and should be considered in assessing this tender but which has not been specifically mentioned above shall be set out below:

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

SIGNATURE OF TENDERER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FOR THE FIRM OF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Bidder shall provide the entire general information i.e. technical schedule, technical literature and manufacturer’s authorization for the Carbon Filter

##### ITEM: Multimedia Filter

1. Carbon Filter

1.1 Standard to which manufactured \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Manufacturer’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. PROTECTIVE COATING

2.1 Coating Material Outside \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.2 Coating Material Inside \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Additional Information

Further information which manufacture / supplier considers important and should be considered in assessing this tender but which has not been specifically mentioned above shall be set out below:

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

SIGNATURE OF TENDERER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FOR THE FIRM OF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Bidder shall provide the entire general information i.e. technical schedule, technical literature and manufacturer’s authorization for the Multimedia Filter

##### ITEM: Micron Filter

1. Micron Filter

1.1 Standard to which manufactured \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Manufacturer’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. PROTECTIVE COATING

2.1 Coating Material Outside \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.2 Coating Material Inside \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Additional Information

Further information which manufacture / supplier considers important and should be considered in assessing this tender but which has not been specifically mentioned above shall be set out below:

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

SIGNATURE OF TENDERER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FOR THE FIRM OF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Bidder shall provide the entire general information i.e. technical schedule, technical literature and manufacturer’s authorization for the Micron Filter

##### ITEM: RO Membrane

1. RO Membrane

1.1 Standard to which manufactured \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Manufacturer’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Additional Information

Further information which manufacture / supplier considers important and should be considered in assessing this tender but which has not been specifically mentioned above shall be set out below:

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

SIGNATURE OF TENDERER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FOR THE FIRM OF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Bidder shall provide the entire general information i.e. technical schedule, technical literature and manufacturer’s authorization for the RO Membrane

##### ITEM: Electrical Pannel

1. Electrical Pannel

1.1 Standard to which manufactured \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Manufacturer’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Additional Information

Further information which manufacture / supplier considers important and should be considered in assessing this tender but which has not been specifically mentioned above shall be set out below:

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

SIGNATURE OF TENDERER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FOR THE FIRM OF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Bidder shall provide the entire general information i.e. technical schedule, technical literature and manufacturer’s authorization for the Electrical Panel

##### ITEM: Plumbing and Fixtures

1. PIPES

1.1 Type of Material \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.2 Standard to which manufactured \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Nominal sizes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Maximum effective pipe length (m \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.5 Manufacture’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.6 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.7 SDR \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.8 Joint Type \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

##### 2. FITTINGS

2.1 Type of Material \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.2 Standard to which manufactured \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.3 Nominal sizes (mm OD) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.5 Manufacture’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.6 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.7 SDR \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Additional Information

Further information which manufacture / supplier considers important and should be considered in assessing this tender but which has not been specifically mentioned above shall be set out below:

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

SIGNATURE OF TENDERER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FOR THE FIRM OF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Bidder shall provide the entire general information i.e. technical schedule, technical literature and manufacturer’s authorization for Plumbing and Fixtures.

##### ITEM: Skid for RO Plant

1. Skid

1.1 Standard to which manufactured \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Manufacturer’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Additional Information

Further information which manufacture / supplier considers important and should be considered in assessing this tender but which has not been specifically mentioned above shall be set out below:

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

SIGNATURE OF TENDERER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FOR THE FIRM OF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Bidder shall provide the entire general information i.e. technical schedule, technical literature and manufacturer’s authorization for Skid of RO Plant

##### ITEM: PRESSURE PIPES for water taP-bay

1. PRESSURE PIPES FOR WATER TAP-BAY

1.1 Type of Material HDPE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.2 Standard to which manufactured/ Grade Refer to Employer’s Requirements\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Nominal sizes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Maximum effective pipe length (m) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.5 Manufacture’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.6 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.7 Pressure Rating / Class \_6 bars\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.8 Joint Type \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. FITTINGS

2.1 Type of Material HDPE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.2 Standard to which manufactured/ Grade \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.3 Nominal sizes (mm OD) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.5 Manufacture’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.6 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.7 Pressure Rating / Class 6 Bars\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Additional Information

Further information which manufacture / supplier considers important and should be considered in assessing this tender but which has not been specifically mentioned above shall be set out below:

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

SIGNATURE OF TENDERER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FOR THE FIRM OF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Bidder shall provide the entire general information i.e. technical schedule, technical literature and manufacturer’s authorization for Pressure Water Distribution Network.

##### ITEM: PRESSURE PIPES for Pumping mains

1. PRESSURE PIPES FOR PUMPING MAIN

1.1 Type of Material HDPE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.2 Standard to which manufactured/ Grade \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Nominal sizes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Maximum effective pipe length (m) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.5 Manufacture’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.6 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.7 Pressure Rating / Class \_6 bars\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.8 Joint Type \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. FITTINGS

2.1 Type of Material HDPE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.2 Standard to which manufactured/ Grade \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.3 Nominal sizes (mm OD) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.5 Manufacture’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.6 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.7 Pressure Rating / Class 6 Bars\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Additional Information

Further information which manufacture / supplier considers important and should be considered in assessing this tender but which has not been specifically mentioned above shall be set out below:

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

SIGNATURE OF TENDERER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FOR THE FIRM OF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Bidder shall provide the entire general information i.e. technical schedule, technical literature and manufacturer’s authorization for Pressure Pipes for Pumping Main

##### ITEM: PRESSURE PIPES for brine disposal

1. PRESSURE PIPES FOR BRINE DISPOSAL

1.1 Type of Material HDPE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.2 Standard to which manufactured/ Grade Refer to Employer’s Requirements\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 Nominal sizes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.4 Maximum effective pipe length (m) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.5 Manufacture’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.6 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.7 Pressure Rating / Class \_16 bars\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.8 Joint Type \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. FITTINGS

2.1 Type of Material HDPE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.2 Standard to which manufactured/ Grade \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.3 Nominal sizes (mm OD) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.5 Manufacture’s Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.6 Country of Origin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.7 Pressure Rating / Class 16 Bars\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Additional Information

Further information which manufacture / supplier considers important and should be considered in assessing this tender but which has not been specifically mentioned above shall be set out below:

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

SIGNATURE OF TENDERER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

FOR THE FIRM OF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The Bidder shall provide the entire general information i.e. technical schedule, technical literature and manufacturer’s authorization for Pressure Pipe for Brine Disposal.

# 4.4 Technical Schedules

## 4.4 Technical schedules

The particulars are to be provided by the Bidder. This shall be used for the bid evaluation.

|  |  |  |
| --- | --- | --- |
| No. | Description | Particulars of Works Components |
| 1 | Tubewells details | Yes/No |
| 2 | Ro Plant Process/Flow Diagram | Yes/No |
| 3 | RO Plant House showing layout of RO Plant and Allied Structures in and outside |  |
| 4 | RO Plant with Brine Disposal arrangements |  |
| 4. | Plan showing water distribution network, Borehole, Storage Tanks and Rainwater Harvesting Details | Yes / No |
| 5 | Water Harvesting Concept layout | Yes/No |
| 6 | Preliminary concept design calculations of all components of water supply system in support of costing of the Bid. |  |
| 7 | Electrical Single line Diagram of RO Plant | Yes/No |
| 8 | Atomization details of RO Plant | Yes/No |
| 9 | Conceptual Drawing of Pumping Sump with Float Switches Details |  |

## 4.4.1 Technical schedule-TS1

Electrical Equipment (Refer to Employer’s Requirement)

|  |  |  |  |
| --- | --- | --- | --- |
| Sl. No. | Description | Unit | Particulars |
|  | RO Plant and Pump House of Bore Hole |  |  |
| 1 | Motor Control Units |  |  |
| 3 | Cables and C Cables |  |  |
| 4 | Pumps |  |  |
|  | Motors |  |  |
| 5 | Starters |  |  |
| 6 | Sensors |  |  |
| 7 | Bidder or Sub Contractor may like add more items |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## 4.4.3 Technical schedule-TS2

Motor Schedule

| Sl. No. | Description | Motor rating (kW) | Full load efficiency (%) | Power factor |
| --- | --- | --- | --- | --- |
|  | Borehole Pump House |  |  |  |
|  | RO Plant |  |  |  |
|  | RO and Rainwater Harvesting Distribution arrangement |  |  |  |

## 4.4.4 Technical schedule-TS3

Statement of Power Consumption for RO Plant and Borehole Pumps Operation.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Description | No. Provided | KW Rating | Total Installed KW | Operational KW | Hrs. of Operation/day | Energy Consumption (KWh/day) |
| A | Raw Water Pumping |  |  |  |  |  |  |
| B | RO Plant |  |  |  |  |  |  |
| 1 | Dosing Pump |  |  |  |  |  |  |
| 3 | High Pressure Pump |  |  |  |  |  |  |
| 4 | Miscellaneous energy consumption | - | - | - | - | - |  |
| C | Sea outfall Pumping for Brine Disposal |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | - | - | - | - | - |  |

**Note**: 1) As per Clause 36.4 Section 1 of the Bid Document, the above information is relevant for Bid Evaluation.

Signature

(Authorised Signatory)

## 4.4.5 Technical schedule-TS4

Brief Description on the Water Supply System of the Island considering Integrated Water Resources Management Approach.

## 4.4.6 Technical schedule-TS5

RO Plant Process Description and Brine Disposal Details

## Technical schedule-TS6

RO Plant Electrical Single Diagram, Atomization details, with brief Description on its operation

## 4.4. 16 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)

Schedule 4.5.1 - Sub Contractor’s Qualification

1.Design and Construction of Water Supply System

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.

## 4.5.3 Technical schedule – Employer’s Requirement Compliance declaration by the Sub contractor

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 MEE, Government of Maldives and that this project has duly been approved by Government of Maldives. The Project is funded by Global Environment Fund (GEF) and Government of Maldives (GoM) and being implemented by the Ministry of Environment and Energy, , 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)