Design and Build Basis for Water and Supply Network, Water Storage Tanks and Reverse Osmosis Plant, Allied Works based on Integrated Water Resources Approach in Th. Vilfushi (TES/2016/W-46), and B.Eydhafushi (TES/2016/W-45) Maldives

S. No	Reference	Reference Details	Clarifications
1	Technical Specifications - Section 11200 Water Supply and Treatment Equipment	Within the technical specifications, Ultrafiltration is required as a pre-treatment to the RO system. However, based on the drawings TV-WS-105, there is an indication of sand filter as a pre-treatment to RO system. Based on our experience and supply to Maldives, it is typical that the sand filter is more than sufficient as a pre-treatment to RO. MEE is recommended to consider accepting the use of sand filter for value engineering and reliability of the Sand Filter over UF.	Ultra-filter has been considered for pre-treatment in Design. It is a Design Requirement and it has to be provided as per contract document. Contractor can propose the alternative to UF with the supporting documents for the selection, subject to MEE's approval.
2	Technical Specifications - Section 11200 Water Supply and Treatment Equipment	Please advise the capacity of the UF permeate tank, if required.	UF permeate tank capacity subject to the RO Plant capacity requirement and Manufacturers recommendation and subject to client's approval.
3	Drawing No. TV-WS-116	There is a laboratory within the admin building, will laboratory supplies and consumables be inclusive in the entire package?	Yes, consumables in the Laboratory to be provided by the supplier
4	BOQ - Water Supply for Th. Vilufushi	The quantity of water meters and first flush devices are 686 nos. However, from the drawings, it was counted to have 698 households/connection points. Please advise if the quantity required is 686 or 698 nos.	**7 nos of First flush Devices, 686 nos of Water meters**
5	Drawing No. TV-EL-103	As per the SLD, Please advise if Island main power supply from MLTP / MSB from existing grid supply is available or not.	Island power supply is available from the existing grid. Bidder may make sure the same before participating in the bid.

6	Sub-Clause 6.14 Supply of water	Please advise if there are supply of water during construction period	Drinking water for contractor's personnel is available in the island. Contractor may make arrangements of water for construction purpose by themselves. Contractor is not supposed to use ground water/ well water for the construction purpose due to scarcity of water in the islands.
7	Drawing No: BE-WS-121	Please advise if the pre-treatment of RO is located within the RO plant room. There is no space allocated for this	Pre-treatment of RO is located within the RO plant room. Contractor can propose the alternative size, in case of shortage of space with the supporting documents for the size of RO plant room, subject to client's approval
8	DRAWING TITLE: RO PLANT LAYOUT Tha. VILUFUSHI ISLAND	PHOTOVOLTAIC MODULE COMPLETE WITH SUPPORTS AND WIRING EACH OF 300W TO BE CONNECTED TO SOLAR MOTOR STARTER PANEL COMPLETE WITH AC POWER COLLECTION PANEL WITH AC CABLING. CELL DIMSION IS (1960mm x 985mm x 40mm). We propose the using solar panels of each 315W. This reduces the amount of space requirements and the number of solar panels required to generate the same amount of electricity needed. Panel dimensions are 1956 x 992 x 40 mm (L x W x H).	Contractor's proposal could be accepted subject the complete shop-drawings and materials technical data to be approved by the Consultants/ MEE.
9	DRAWING TITLE: RO PLANT LAYOUT Tha. VILUFUSHI ISLAND TV-WS-105	Technical specifications indicated the need for a Ultra-Filtration (UF) system, whereas the drawings for RO plant layout only indicated the use of sand filters. Please advise on the planned location for the UF system and the process flow of rainwater collection tank to the filtered rain water storage tank.	Both are required as per the contract document • Ultra filter to be provided for pre-treatment of RO system • Sand Filters are required due to raw water from tube wells
10	BOQ Vilufushi (Water Supply - Water	BOQ states: 80mm diameter HDPE Brine Outfall pipe according to ASTM	Follow the Drawings

	Treatment Plant) and Drawings TV-WS-102	standards with sufficient ballast blocks to resist the floatation of pipe in the ocean all as specifed and shown on drawings. (Ref. Spec. 02240, 02260, 02315, 02316, 03100, 03200, 03300). Drawings states: Brine outfall 160mm diameter HDPE pipe (350m) long. Please advice if brine outfall required is 80mm or 160mm HDPE pipe?	
11	BOQ Vilufushi (Water Supply - Flow meters) & Drawings TV-WS-105	Based on drawings, the flow meters are installed downstream of the desalinated water tank and filtered rain water tanks. Please advise on whether these are flow meters or water meters (i.e. does MEE want to measure the flow rate or the amount of the water entering the product water tank?) Also, please confirm if the transfer method from the desalinated water and filtered rain water tanks are by overflow into the product water tank.	• These are Flow meters • Yes it is by over flow as per MEE guidelines
12		Since the design of the schemes have been done in detail, please clarify if all spaces for the construction of the lift pumping stations has been enmarked and available for construction. Please confirm.	All the locations of Lifting stations as shown in the tender drawings are approved by the Ministry and are available for the contractor to start construction work.
13		The details of the borewell in terms of its depth, anticipated discharge, pumping machinery and borewell diameter needs to be provided.	Typical Details Provided in Design Drawings
14		The capacity of the RO plant in each island is given as 2 x 60 m3/day. This needs clarification and confirmation.	The Capacities are different as per the Design , check the BOQ for each island
15		What would be the source of electricity to run the scheme components – bore well, lifting stations, the RO Unit etc.	The main source will be from the Island Electricity power supply. Emergency generators are available for support during electricity breakdowns

16		The concept of rain water collection and storage at a common tank and subsequent treatment at RO plant is not understood. This needs clarity.	Design is as per MEE,and EPA requirements
17		Kindly provide the details of local taxes proposed to be paid on the said project.	Goods and Services Tax will be applicable for the project at the present rate of 6% of contract amount. Bidder may Liaise with MIRA to get the tax related clarificaations
18		In case some material is imported, would some tax concessions be provided for such an imports.	Import tax will be exempted for all the water and sanitation projects
19		can we quote in US dollar as we are foreign company(India based company) and we procure most of the material from India.	**Please quote the price in both MVR and USD**
20		Do we need to consider GST for supply items also(item that supply from India or other country)	**GST will be applicable for all the goods and services provided under the project. Customs duty and GST for items supplied will be based on MIRA regulations.**
21		Pre bid meeting is compulsory to attend?	**Pre-bid meeting is not compulsory.**
22	Section II ITB 15.1, Bidding data sheet, page 30- The currency(ies) of the bid and the payment currency(ies) shall be in Maldivian Rufiyaa	We request you to clarify that for supply of those materials which are made from outside Maldives, payment may also be made in US Dollars for foreign bidders.	Yes. Payment can be made in USD.
23	**Section VIII** Particular Conditions, Part A - Contract Data of contract, page 449 **Plant and Materials,** 14.5(b)(i) - If Sub-	We note that as per Price Schedule furnished by you with tender documents, we have to fill a combined Unit Price for "Supply & Erection". Please clarify how do you propose to break this Unit Price into Supply and Erection for payment purposes.	1. Bidders are requested to quote only one rate for each items specified in the BOQ. The breakup of unit rate quoted by the bidder depends on the items and no specific breakup percentage is required for this purpose and shall be quoted with the logic of each bidder.

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	Clause 14.5 applies: Plant and Materials for payment Free on Board 60% 14.5(c)(i) - Plant and Materials for payment when delivered to the Site 80%	We suggest that the same should be broken as 80% for Supply and 20% for Erection/Services. Please review and confirm. For supply of items we propose that 60% of supply amount shall be paid of dispatch of materials as FOB and 20% to be paid on receipt and verification of materials at site. This is for material procure from outside of Maldives. Please specify the terms of payment for Erection, Testing and Commissioning also.	2. Kindly note that the payment of all items specified in the BOQ will be towards the progress of that particular items through interim progress bills as a proportionate percentage of the amount quoted by the bidder. No separate payments will be made for erection, testing, commissioning etc but the item will be paid after checking the actual progress during construction phase. 3. Kindly note that the Clause 14.5(b)(i) is **CANCELLED.** 4. Payment for materials mentioned in Clause 14.5(c) (i) will be released only after the material is delivered to site. No advances will be paid upon dispatch of materials from the source.
24	**General Technical Points** -BOQ and Technical Specification **Pipe Specifications**	In BOQ pipe material is specified HDPE whereas the same is specified as UPVC in technical specifications. Please clarify.	HDPE pipe shall be used as per MEE guidelines
25	**General Technical Points** -BOQ and Technical Specification **Valve standard**	Valves are specified to be supplied conforming to American Standards. Please clarify that valves conforming to equivalent Indian standard shall be acceptable to you.	Contractor can propose the alternative with the supporting documents for the selection, subject to MEE's approval.
26	**General Technical Points** -BOQ and Technical Specification **GRP Tank**	Please clarify that in place of GRP tanks we can provide RCC tank with epoxy lining, since transportation of GRP tank will not be suitable financially.	GRP tank allows flexibility for future expansion, where RCC doesn't. so GRP tank to be provided.

27	**General Technical Points** -BOQ and Technical Specification **Photovoltaic equipment**	Please furnish ratings of Photovoltaic equipment along with back up battery sizing conditions.	Cells ratings are given. The selected system specialist has to do the necessary battery sizing as the same differ from one manufacturer to another.
28	**General Technical Points** -BOQ and Technical Specification- **Main cable**	Please provide the main electric cable length from main grid to plant site.	Location of the main grid can be defined by the contractor/client as per the site condition.
29	**General Technical Points** - BOQ and Technical Specification- **Cable Conductor**	Cable conductor is specified as copper, whereas according to cable sizes, aluminium conductor shall also be suitable. Please clarify if we can provide cable with aluminium conductor.	This shall depend on the cable length, if the cable voltage drop is within the permissible standard percentage, Copper or Aluminium conductor can be selected subject to V.D. Calculation to be submitted by the contractor and the same to be evaluated/approved by the engineer.
30	**General Technical Points** -BOQ and Technical Specification- **Sewage Disposal**	Please clarify the scope of work for Sewage Disposal system, if any, included in our scope of work.	Sewage disposal system is not part of the contractor under this project.
31		Please clarify the rain water collection points	Rain water collection point are public buildings as mentioned in Detailed Design Report
32		DRW No-BE-WS 102, Shows - only 33 rain water collection points,but in BOQ (Water distribution network section) there are 591 first flush devices.Please Clarify the exact numbers	33 – First flush devices and 591 – water meters In each house holds
33		In the BOQ (Water Supply System clause B), it has mentioned about a overhead tank, but it hasn't shown in drawings. please clarify this	There is no overhead tanks. All tanks are floor mounted GRP only

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34		Material that use for water distribution network is mentioned as uPVC in the technical specification, section 02510, but in the BOQ (Water Distribution Network section) is it mentioned as HDPE. Please clarify this.	All pipe materials are HDPE as per MEE guildelines
35		Size, quantity & requirement of the branch pipes (Household connections) are not mentioned in the drawings or BOQ.	Minimum pipe size for house hold is 20 mm ND(Nominal Dia)
36		There is no note in the BOQ about the brine outfall pumping station	Outfall pumps shall be included in the BOQ. outfall pipe items already mentioned in BOQ
37		Quantity of valve chambers are different in the BOQ (Water Supply System- Clause F) & drawings (DRW No BE-WS- 101 Sheet 01 & 02). In the drawings- 25, in BOQ- 23.	23 valve chambers. Refer to the complete layout for correct numbers.
38		UF system arrangement is not shown in layout drawing, DRW No. BE-WS-105	UF on the layouts is for indicative purpose only. Contractor shall do the proper UF Selection subject to the RO Plant capacity requirement and Manufacturers product Catalog
39		It is shown a Sand filter in the drawing, DRW No. BE-WS-105. But there is no note about Sand filter in the BOQ & Technical specification. Also is it necessary to use the sand filter? (Because we can send the rain water through UF & there may not need an additional sand filter)	Since we use common sand Filter for both Raw water and Rain water from the respective tank, Sand Filter is necessary in addition to UF
40		Please clarify the necessity of Energy Recovery unit of RO Plant (Since the volume of reject water can be relatively small)	It is a Design Requirement of MEE and it has to be provided as per contract document
41		Capacity of the booster pump is not provided	Refer to the Detailed Design Report for Pump Capacities
42		Given capacity (16.8 m^3/hr, 2 nos, both working) of the brine outfall pump seems to be too high (Ref:- DRW No. BE-EL-102) comparing with reject volumes	Contractor shall size the pump as per the RO Plant capacity requirement and Manufacturers product Catalog with the supporting documents for the selection, subject to MEE's approval.

43		Size of the brine outfall pipe mentioned as 80mm in drawing, DRW No BE-WS-103 /Sheet No. 02. DRW No BE-WS-102, it is mentioned as 160mm (According to the reject volume, 160mm pipe line seems to be too large).	The brine outfall pipe size shall be as per the RO Plant capacity requirement and Manufacturers product Catalog with the supporting documents for the selection, subject to MEE's approval.
44		Please provide the CAD files of the drawings.	CAD drawings will be provided to successful Bidders upon award of contract.
45		Please provide working file (excel file) of BOQ.	Excel file of BOQ will be given to all bidders. Bidders may not change the amounts mentioned in 'DAYWORKS' sheet of BOQ and the same may be carried over to 'General Summary' page without any change.
46		1. GRP storage water tanks - Drawing and BOQ showed 6000mm height GRP tanks but most of the manufactures having the standard height maximum up to 5000mm. 2. RO Plant admin building – -Plumping item not included in the BOQ -Split A/C and furniture details not included in the BOQ 3. Brine outfall diameter -Diameter in BOQ differ from drawing	1. GRP tanks can be selected as per the required volume subjected to the approval from the client 2. Bidder may include the Quantity/ Rate for any items not mentioned in the detailed BOQ towards the Additions/ Omissions of Tenderer's Adjustments Sheet of BOQ 3. Follow the drawings

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