



AMENDMENT 1

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No:	TES/2016/W-115		
Project:	Provision of water supply facilities in Th.Guraidhoo, Dh.Kudahuvadhoo & Ga.Villingili		
Issued Date	10th October 2016		
No. of Pages: -17	Boq: -04	Drawings: -09	

Please include this amendment when submitting the bid. **بموجب هذا التعديل يجب ان يتضمن المزايد هذا التعديل عند تقديم المزايدة.**

Please find attached answers to the queries raised for the subjected project

- Please find the attached Excel file of BOQ
- Please find the attached Drawings
- Letter of Bid (Word Format)
- Floor Meter Chamber Layout
- Fire Alarm Details
- Water Profile

Please be informed that the bid submission for the project has been postponed and now will be held on **25th October 2016 at 1130hrs local time.**

اسم: **Aminath Juweriya**


Signature:



Provision of Water Supply Facilities in Th. Guraidhoo, Dh. Kudahuvadhoo and Ga. Vilingili

Clarifications

1	<u>RO-Plant:</u> Sea water analysis to be used for membrane projection? Only temperature of 30°C is informed, please submit data for sea water.	Provided as addendum																												
2	Required water quality for product water (permeate), please inform.	<p>The expected Quality of Permeate water is given below.</p> <p>Expected product Flow rate is given in the section 6-B-2. Bidder has to propose rated flow and corresponding Heads required for pumps in order to achieve required quality and product flow rate. (Calculation sheets obtained from Hydraulic Membrane Solution Design Software or similar software should be attached)</p> <table><tr><th>Ion</th><th>Permeate(mg/l)</th></tr><tr><td>Ca</td><td>1.99</td></tr><tr><td>Mg</td><td>7.47</td></tr><tr><td>Na</td><td>128.57</td></tr><tr><td>K</td><td>5.28</td></tr><tr><td>NH4</td><td>0.00</td></tr><tr><td>Ba</td><td>0.00</td></tr><tr><td>Sr</td><td>0.0323</td></tr><tr><td>Co3</td><td>0.000</td></tr><tr><td>Hco3</td><td>2.05</td></tr><tr><td>So4</td><td>3.957</td></tr><tr><td>Cl</td><td>224.14</td></tr><tr><td>F</td><td>0.016</td></tr><tr><td>No3</td><td>0.000</td></tr></table>	Ion	Permeate(mg/l)	Ca	1.99	Mg	7.47	Na	128.57	K	5.28	NH4	0.00	Ba	0.00	Sr	0.0323	Co3	0.000	Hco3	2.05	So4	3.957	Cl	224.14	F	0.016	No3	0.000
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		<table><tr><td>B</td><td>1.251</td></tr><tr><td>SiO2</td><td>0.01</td></tr><tr><td>Co2</td><td>0.50</td></tr><tr><td>TDS</td><td>374.8</td></tr><tr><td>PH</td><td>6.82</td></tr></table>	B	1.251	SiO2	0.01	Co2	0.50	TDS	374.8	PH	6.82	
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3	Required recovery is 55% +10%/-5%, this recovery and high temperature might result in a two pass system in order to reach drinking water standard for Maldives.	Temperature and recovery rate is not so high. So Single Pass Ro System enough											
4	Power requirements? Is the RO plants to be equipped with energy recovery device for low energy consumption?	Bidder has to propose the capacity of the Power Plant, relevant to their Pumps and instruments with necessary calculations. Specified water quality and quantity to be met											
5	One or two RO plants for each site? P&I diagram shows one RO plant, RO building drawings shows two plants, BOQ show 1 item?	Two RO plants. Two drains. PI diagram is identical.											
6	Steel type for wetted parts is mentioned for SUS304? This steel type is not suitable for sea water at 30°C, should be minimum 904L or S32205 please confirm.	Please follow the specifications. MSEP/ SUS304 is Suitable for Preventing Corrosion											
7	Filter for concentrate shown on P&I “Reject Filter”? Normally no filter is needed for concentrate	Filters are not required for concentrate reject											



	reject? Specifications	
8	Sea water well, included in scope? Specifications	Two Tube Wells for each Site Shown in Drawings
9	Intermedia tank for sea water and feed pumps could be canceled to save power. Well pump can feed filters direct.	Please follow the design drawings and specifications. As a Temporarily Storage tank, intermediate sea Water tank should be provided
10	Concentrate is pumped back to sea? How? Specifications.	Yes. Brine Pump Details are Show in Drawings. In Sea Outfall, Diameter 110mm, Maximum Pressure 16 Bar
11	Remineralization of permeate is missing for drinking water usage!	Please follow the designs and specifications
12	Rain water harvest? Including in scope? Specifications? How to secure drinking water quality?	Rain Water harvesting System is included to scope. To secure the quality rain water is send through Cartridge filters to the Main Storage Tank as shown in the P&I Diagram
13	As we are an overseas construction company, do we stand eligible to Bid for this Project?	This is an International competitive bidding. Therefore except the overseas construction companies which the country of origin are boycotted by OFID can bid to this tender.
14	What are the documents we need to produce at the time of obtaining this Tender Document?	Documents to be submitted are stipulated in the bid document.
15	Preliminaries bill is missing – Could you please include it with mobilization & project management cost item.	Provided as addendum
16	GRP water tank & foundation drawing. Could you	Please follow the dimensions provided in the tender drawings earlier. The tank

	<p>please confirm the dimensions mentioned in the drawing. Also please specify whether it's a raft foundation or strip foundation. It would be very helpful if the designer can provide a plan view of the foundation.</p>	<p>type is now changed to RTP. Foundation drawing is provided as addendum. The Tank is rest on the Reinforced Concrete Base as shown in the Drawing</p>
17	<p>150cmb fuel tank – What is the type of tank? Does it have a foundation & bund wall. It would be very helpful if the designer can provide design drawing.</p>	<p>The Generator set/Power plant is now removed from the scope. Therefore, this is not applicable now.</p>
18	<p>Currency of Bid (ITB 15.1) is stated as USD and MVR. Whereas BOQ allows for quoting in only 1 currency. Please advise which currency to be used for quoting.</p>	<p>The individual items shall be costed in MRV and the final value is converted to USD (refer the BoQ grand summary)</p>
19	<p>Specification Section 01500: Construction facilities and temporary controls</p> <ul style="list-style-type: none"> o 1.04 Site offices – States that contractor has to provide separate site office (furnished & equipped) for the Engineer and site supervision staffs. Could you please confirm if this is mandatory to be provided by the contractor at his own cost as specified until issue of Defects liability period. o If it is required, will it be acceptable for 	<p>Addendum BoQ is provided for General items</p>

	Engineer to share a site office with Contractor as it is some time very difficult to get separate facilities in Islands.	
20	Is it in the Contractors scope to provide accommodation for the Engineer?	Yes. BoQ addendum provided
21	Is it in the Contractors scope to provide transportation arrangements for the Engineer from Island to Male?	Please refer the BoQ addendum provided
22	Cement for the works; What is the type of cement to be used for substructures and super structures?	Use Sulfate Resisting Cement in all substructures and Ordinary Portland Cement in all superstructures.
23	What is the size of the land where water production facilities are to be built.	As per the dimensions provided in yard Pipe Drawing.
24	It is to note that RO building and Admin building are typical for all 3 Islands. However there are miss matches in the BOQ of both islands when compared (miss match in the items as well as quantities). Could you please advise on this.	Please refer the Amended BoQ provided as addendum
25	What is the capacity of the water tanks? Is it acceptable to quote for steel bolted tanks instead of RCC tanks as a design and build basis component?	Please refer the addendum. Tank type is revised as RTP tank
26	• Kudahuvadhoo	Please refer the Amended BoQ provided as addendum

	<ul style="list-style-type: none"> • Bill nr 3 (Clear water sump) and Bill nr 6 (Rain Water Sump) bill stated in summary is not found in detailed Bills. • A detailed bill is found without a heading. As such we are not able to understand where to transfer the cost in summary bill. 	Please refer the Amended BoQ provided as addendum
27	<input type="checkbox"/> Guraidhoo <ul style="list-style-type: none"> • Bill nr 3 (Clear water sump) and Bill nr 6 (Rain Water Sump) bill stated in summary is not found in detailed Bills. • A detailed bill is found without a heading. As such we are not able to understand where to transfer the cost in summary bill. 	<p>Please refer the Amended BoQ provided as addendum</p> <p>Please refer the Amended BoQ provided as addendum</p>
28	<ul style="list-style-type: none"> • Villingili • Bill nr 3 (Clear water sump) and Bill nr 6 (Rain Water Sump) bill stated in summary is not found in detailed Bills. • A detailed bill is found without a heading. As such we are not able to understand where to transfer the cost in summary bill. 	

29	Status of the new revised drawing sets and BOQ	Please refer the Amended BoQ provided as addendum
30	Please provide Rated Flow and corresponding Head values required for the pumps specified in the design drawings for both the islands	Expected product Flow rate is given in the section 6-B-2. Bidder has to propose rated flow and corresponding Heads required for pumps in order to achieve required quality and product flow rate. (Calculation sheets obtained from Hydraulic Membrane Solution Design Software or similar software should be attached
31	Please provide specification of dosing pumps including flow rate , strokes etc	Rated capacity 3-17 l/hr Rated head 5 m TDH mi/stroke 0.1 - 0.8 Stroke/Minute 180-240
32	What is the total water demand for the island? m ³ /day	Please refer section 6-B-1 and 6-B-2
33	What is the RO plant capacity? Total & each: m ³ /day m ³ /hr hrs/day	Please refer section 6-B-1 and 6-B-2
34	How many plants needed? a m ³ /day x b plants = ab m ³ /day	2 RO plants needed
35	Is there a provision for trial bore holes to be drilled? Is yes, how many needed to be drilled?	A provisional sum is provided. Engineer shall instruct bore holes or any other tests as and if required
36	Please clarify how the rainwater is to be collected and then transported to the plant location? Should it be gravity or pumping system? What are the storage capacities proposed at each collection point?	Contractor has to connect Rain water collection system to existing Tanks. Normally Tanks located minimum 1.5 m elevation. Water goes under gravity to the rainwater Collection Sump.
37	What is the capacity for pre-treatment of collected rainwater? m ³ /hr	Villingilli- 3.125 m ³ /hr Kudahuvadhoo- 2.68 m ³ /hr Guraidhoo – 1.83 m ³ /hr
38	What is the distance from the island power house to	Please measure from the yard Pipe Drawing



	the proposed plant building? This is need to size and cost the main feeder cable.	
39	What is the capacity of the proposed power plant for the project? Please provide specifications.	The Generator set/Power plant is now removed from the scope. Therefore, this is not applicable now.
40	Should we consider solar PV/ DG hybrid power plant? If yes, please provide specifications for the solar PV systems.	No. Provisions to be provided for future expansion
41	Should the power plant have ATS panel?	The Generator set/Power plant is now removed from the scope. Therefore, this is not applicable now.
42	Size, quantity & requirement of the branch pipes (Household connections) are not mentioned in the drawings or BOQ.	Refer BoQ item 1.058 and Drawing Guraidhoo/STD/12
43	Rain water tanks – BoQ & specifications are not provided!	Please refer the Addendum with revised BoQ
44	The General Item – which includes bonds & guarantees, insurance, etc. BoQ is missing	Please refer the Addendum with revised BoQ
45	Capacity of the booster pumps is not provided!	Please see Specification
46	What is the pricing basis for Imported plant, machinery, equipment and items, INCOTERMS 2010?	INCO Terms 2010 – CIP – to the respective Islands
47	Latest population, year xxxx?	Please refer Section 6-A, Ps 1.04
48	Population growth rate, %	Please refer Section 6-A, Ps 1.04
49	Number of households?	Willingilli 1154 Guraidhoo 470 Kudahuvadhoo 905
50	Water consumption, litres/person/day Minimum	Please refer the Guidelines stipulated in the TOR issued by Ministry of Infrastructure and energy (Use following Link)

	Average Maximum Designed	http://epa.gov.mv/index.php?option=com_content&view=article&id=1196:final-technical-spec-for-water-supply&catid=3:documents-and-downloads&Itemid=10
51	Additional demands for Industrial Institutional Commercial Parks	Please refer the Guidelines stipulated in the TOR issued by Ministry of Infrastructure and energy (Use following Link) http://epa.gov.mv/index.php?option=com_content&view=article&id=1196:final-technical-spec-for-water-supply&catid=3:documents-and-downloads&Itemid=10
52	Unaccounted water provision, % total	Please refer the Guidelines stipulated in the TOR issued by Ministry of Infrastructure and energy (Use following Link) http://epa.gov.mv/index.php?option=com_content&view=article&id=1196:final-technical-spec-for-water-supply&catid=3:documents-and-downloads&Itemid=10
53	Maximum excavation depth, m	2.5m
54	Administration building area, m2	102
55	Main roads and/or by-roads are paved, tarred or not	Not in the scope. Please refer the BoQ for the internal paving
56	Should there be any provisions to be made for 3rd party inspections?	Yes
57	Should we consider an O&M period of one year?	No. The project will be handed over to the Operator after completion.
58	Can we propose alternative material for construction of all tanks, we prefer GRP panel tanks	Please refer the addendum. Tank is revised to RTP type
59	Fuel Tank Drawing is missing	No applicable now
60	Generator Room Drawing is missing	Not applicable now
61	Yard Piping Drawing is missing	Provided as addendum
62	Most of the Electrical items seem to be missing in the BOQ. Do we need to include following items &	Yes. Please include in the additions.

	where we need to include? <ul style="list-style-type: none"> Main feeder cables & respective other equipment such as yard lighting, building wiring & plant panels, controls and wiring detailed description is not provided in the BOQ. Is there a need for ATS Panel? 	
63	In Rainwater distribution system, First Flush devices are missing. Do we need to include these as well? If so, what is the respective quantity?	Yes. 5 per island. Shall include in the additions.
64	Water Flow meters to the RO Plant is missing	Flow meter chamber Drawing provided here with. For each site one Floor meter is enough.
65	Non-return valves quantity and its' chambers are not mentioned in the BoQ.	Same as the Gate valve Chamber Drawing shows in Villingili/STD/o4
PROJECT-DH.KUDAHUVADHOO WATER SUPPLY SCHEME		
66	There is an Item for Rain water sump (Item no.06) in Grand summary. But it is not included in the BOQ. Please clarify. Provide the items in Rain water sump.	Please refer the addendum with revised BoQ
67	In the BOQ Grand summary, Rain water sump amount is equal to the 95% of the Clear water sump amount What is the logic in that calculation? Is it a provisional sum item?	Query is not clear. Clear water sump is revised to RTP tank. Revised drawings and BoQs are provided as addendum
68	In the Letter of Bid there is no place to mention Each single lot price. But it is Mentioned that the total bid price from the Summary of Bill of Quantities should be entered by the bidder	Revised letter of bid provided as addendum

	inside this box. Please clarify.	
69	Please clarify the amount in foreign currency and local currency mentioned in the Letter of Bid. What is the Foreign amount to be inserted in Letter of Bid? What is the Local amount to be inserted in Letter of Bid?	Refer ITB 15.1. Amounts in the discretion of the bidder
70	There is a summary page each lot. But no summary page for the total lot. Please clarify.	Grand summary is provided in the addendum
71	What is the proportion of total bid price to be divided under local and foreign?	in the discretion of the bidder
72	Please provide the detail drawing of non-return valve chamber.	Same as the Gate valve Chamber Drawing shows in Kudahuvadhoo/STD/o4
73	Please provide detail drawing of the power plant. (Bill#5 Supply and installation)	The Generator set/Power plant is now removed from the scope. Therefore, this is not applicable now.
74	Please provide the detail drawing of 150m3 capacity fuel tank. (Bill#5 Supply and installation)	The Generator set/Power plant is now removed from the scope. Therefore, this is not applicable now.
75	Please provide the detail drawing of Fire Protection. (Bill#5 Supply and installation)	Provided as addendum
76	Please provide the detail drawing of Lightning Protection. (Bill#5 Supply and installation)	Provided as addendum

77	Please provide the detail drawing of Hylish pump. (Bill#5 Supply and installation)	This as a typo. Please read this as "High Lift" pump. The drawings and specifications have already been provided with the tender documents
78	Please specify the disposal location of excavated material.	A suitable location within the island will be identified to the winning contractor
	PROJECT- TH. GURADHOO WATER SUPPLY SCHEME	
79	There is an Item for Rain water sump (Item no.06) in Grand summary. But it is not included in the BOQ. Please clarify. Provide the items in Rain water sump.	Please refer the addendum with revised BoQ
80	In the BOQ Grand summary, Rain water sump amount is equal to the 78% of the Clear water sump amount What is the logic in that calculation? Is it a provisional sum item?	Query is not clear. Clear water sump is revised to RTP tank. Revised drawings and BoQs are provided as addendum
81	In the Letter of Bid there is no place to mention Each single lot price. But it is Mentioned that the total bid price from the Summary of Bill of Quantities should be entered by the bidder inside this box. Please clarify.	Revised letter of bid provided as addendum
82	Please clarify the amount in foreign currency and local currency mentioned in the Letter of Bid. What is the Foreign amount to be inserted in Letter of Bid? What is the Local amount to be inserted in Letter of Bid?	Refer ITB 15.1. Amounts in the discretion of the bidder

83	There is a summary page each lot. But no summary page for the total lot. Please clarify.	Grand summary is provided in the addendum
84	What is the proportion of total bid price to be divided under local and foreign?	in the discretion of the bidder
85	Please provide the detail drawing of non-return valve chamber.	Same as the Gate valve Chamber Drawing shows in Guraidhoo/STD/o4
86	Please provide detail drawing of the power plant. (Bill#5 Supply and installation)	The Generator set/Power plant is now removed from the scope. Therefore, this is not applicable now.
87	Please provide the detail drawing of 150m3 capacity fuel tank. (Bill#5 Supply and installation)	The Generator set/Power plant is now removed from the scope. Therefore, this is not applicable now.
88	Please provide the detail drawing of Fire Protection. (Bill#5 Supply and installation)	Provided as addendum
89	Please provide the detail drawing of Lightning Protection. (Bill#5 Supply and installation)	Provided as addendum
90	Please provide the detail drawing of Hylish pump. (Bill#5 Supply and installation)	This as a typo. Please read this as "High Lift" pump. The drawings and specifications have already been provided with the tender documents
91	Please specify the disposal location of excavated material.	A suitable location within the island will be identified to the winning contractor
	PROJECT- TH. GURAI DHOO WATER SUPPLY SCHEME	We trust this should be Villingili
92	There is an Item for Rain water sump (Item no.06) in Grand summary.	Rain water tank BoQ is already provided with the tender documents

	But it is not included in the BOQ. Please clarify. Provide the items in Rain water sump.	
93	In the BOQ Grand summary, Rain water sump amount is equal to the 78% of the Clear water sump amount What is the logic in that calculation? Is it a provisional sum item?	Query is not clear. Clear water sump is revised to RTP tank. Revised drawings and BOQs are provided as addendum
94	In the Letter of Bid there is no place to mention Each single lot price. But it is Mentioned that the total bid price from the Summary of Bill of Quantities should be entered by the bidder inside this box. Please clarify.	Revised letter of bid provided as addendum
95	Please clarify the amount in foreign currency and local currency mentioned in the Letter of Bid. What is the Foreign amount to be inserted in Letter of Bid? What is the Local amount to be inserted in Letter of Bid?	Refer ITB 15.1. Amounts in the discretion of the bidder
96	There is a summary page each lot. But no summary page for the total lot. Please clarify.	Grand summary is provided in the addendum
97	What is the proportion of total bid price to be divided under local and foreign?	At the discretion of the bidder
98	Please provide the detail drawing of non-return valve chamber.	Same as the Gate valve Chamber Drawing shows in Villingili/STD/04
99	Please provide detail drawing of the power plant.	The Generator set/Power plant is now removed from the scope. Therefore, this

	(Bill#5 Supply and installation)	is not applicable now.
100	Please provide the detail drawing of 150m3 capacity fuel tank. (Bill#5 Supply and installation)	The Generator set/Power plant is now removed from the scope. Therefore, this is not applicable now.
101	Please provide the detail drawing of Fire Protection. (Bill#5 Supply and installation)	Provided as addendum
102	Please provide the detail drawing of Lightning Protection. (Bill#5 Supply and installation)	Provided as addendum
103	Please provide the detail drawing of Hylish pump. (Bill#5 Supply and installation)	This as a typo. Please read this as "High Lift" pump. The drawings and specifications have already been provided with the tender documents
104	Please specify the disposal location of excavated material.	A suitable location within the island will be identified to the winning contractor
105	Whether the bank guarantee as per bid security form given in the tender document issues by a reputed Indian Bank like ICICI/SBI/others in India shall be acceptable to you. Kindly confirm	Guarantee by a reputable International bank is acceptable.
106	Since we are first time bidder in Maldives, we understand that this No due certificate is not required to be submitted by us. Please confirm	No Due certificate is not required to be submitted by bidders who are not registered in MIRA.
107	For plant supplies and services the payment terms are not clear. Please elaborate. Also to confirm whether the payment shall be made through LC and who will bear the LC opening charges	Will be discussed at the negotiation stage.
108	Whether the performance security is 5% or 10% of	Performance security is 10%

	contract price. Kindly confirm	
109	Kindly provide taxes and duties as applicable to the imports of goods, material and plant supplies in Maldives under this contract. If it is exempted, kindly confirm.	Please refer to Clause 14.1 – Contract price and payment
110	There is no information on the pre-Bid site visit. Please confirm the date and time of the Pre-Bid site visit, if applicable	Not applicable
111	Extend the bid submission date for at least by 2-3 weeks.	Not possible
112	Can we send out bid through courier for submission to given address? Please confirm.	Yes. Can send through courier.
113	Inlet water for RO plant is bore well or Seawater? Kindly advice	Bore well
114	We need to know the water analysis reports for all the three islands (bore well and seawater) for designing the suitable RO plant	Designing is not in the scope.
115	You are further requested to extend the bid submission date by 3-4 weeks as we need some more time to make our technically and commercially suitable offer after receiving the water analysis report	Bid Opening will be held on 25 th October 2016 at 1130hrs