

Amendment to the Bidding Document for the work titled, "Supply, Installation, Testing and Commissioning of a Central Water Treatment Plant for Submarine Cable Landing Station, Kuakata, Patuakhali"

Sl. No.	Document Reference	Page Number	Clause Number	Item Name	Existing Clause	Modified Clause
1	Bidding Document	42	Section 2 TDS D: Tender Preparation referring to ITT 28.1 (b)	Manufacturer's authorization	<p>A Manufacturer's Authorization Letter is only required for the following items listed in Section 6: Employer's Requirements.</p> <ol style="list-style-type: none"> <li>1. Feed Pump</li> <li>2. Iron &amp; Manganese Filter</li> <li>3. Multigrade Filter</li> <li>4. Granular Activated Carbon Filter</li> <li>5. Micron Filter</li> <li>6. High Pressure Pump</li> <li>7. RO Membrane Housing</li> <li>8. Reverse Osmosis (RO) Membrane</li> <li>9. PH Correction Unit</li> <li>10. CIP (Cleaning in Place)</li> <li>11. RO Treated Water Storage Tank</li> </ol>	<p>A Manufacturer's Authorization Letter is only required for the following items listed in Section 6: Employer's Requirements.</p> <ol style="list-style-type: none"> <li>1. Feed Pump</li> <li>2. High Pressure Pump</li> <li>3. Reverse Osmosis (RO) Membrane</li> </ol>
2	Bidding Document	145	6.2 Specification Item No: 1	Feed Pump	<p>Supplying, fitting and fixing of Feed Pump type Mono-block Centrifugal, Capacity-4 m<sup>3</sup>/hr, Head 35 Meters, Power 1.1 kw, 220 V, 50Hz, MOC SS-304, Brand-Apex/DAB manufactured in USA/EU/UK/Japan all complete and accepted by the Engineer-in-charge.</p>	<p>Supplying, fitting and fixing of Feed Pump type Mono-block Centrifugal, Capacity-4 m<sup>3</sup>/hr, Head 35 Meters, Power 1.1 kw, 220 V, 50Hz, MOC SS-304 Brand: To be mentioned by the bidder. Origin (Manufacturer): USA/EU/UK/Japan</p>
3	Bidding Document	145	6.2 Specification Item No: 2	Iron & Manganese Filter	<p>Supplying, fitting and fixing of Iron Removal Pressure Type, Capacity 4 m<sup>3</sup>/hr, 525 mm x 1550mm, Working temperature 1-490°C, Lowest Environmental Temperature -270°C Operating Pressure 150 psi, Testing Pressure 200 psi, Burst Pressure 750 psi, MOC of Vessel FRP, Brand of FRP Vessel Heron/Topklean, Type of Media- Iron</p>	<p>Supplying, fitting and fixing of Iron Removal Pressure Type, Capacity 4 m<sup>3</sup>/hr, 525 mm x 1550mm, Working temperature 1-49°C, Lowest Environmental Temperature 1-49°C Operating Pressure 150 psi, Testing Pressure 200 psi, Burst Pressure 750 psi, MOC of Vessel FRP, Brand of FRP Vessel: To be mentioned by the bidder.</p>

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				Removal Media & Quartz Sand & Gravel, Brand of Removal Media -BIRM manufactured in USA/EU all complete and accepted by the Project Manager.	Type of Media- Iron Removal Media & Quartz Sand & Gravel, Brand of Removal Media -To be mentioned by the bidder
4	Bidding Document	145	6.2 Specification Item No: 3	Multigrade Filter Supplying, fitting and fixing of Multigrade type Filter, Capacity 4 m3/hr, Size-525 mm x 1550 mm, Working temperature 1-49° C, Lowest Environmental Temperature -27° C Operating Pressure 150 psi, Testing Pressure 200 psi, Burst Pressure 750 psi, MOC of Vessel FRP, Brand of FRP Vessel Heron/Fiber/Topklean, Type of Media-Anthracite & Quartz Sand & Gravel, Brand of Anthracite Media -Aqualax manufactured in China/Vietnam/Taiwan all complete and accepted by the Project Manager.	Supplying, fitting and fixing of Multigrade type Filter, Capacity 4 m3/hr, Size-525 mm x 1550 mm, working temperature 1-49° C, Lowest Environmental Temperature -27° C Operating Pressure 150 psi, Testing Pressure 200 psi, Burst Pressure 750 psi, MOC of Vessel FRP, Brand of FRP Vessel: -To be mentioned by the bidder, Type of Media- Anthracite & Quartz Sand & Gravel, Brand of Anthracite Media -To be mentioned by the bidder and Origin (manufacturer): To be mentioned by the bidder
5	Bidding Document	146	6.2 Specification Item No: 4	Granular Activated Carbon Filter Supplying, fitting and fixing of Activated Carbon Pressure Type Filter, Capacity 4 m3/hr, 525 mm x 1550 mm, Working temperature 1-490° c, Lowest Environmental Temperature -270° c Operating Pressure 150 psi, Testing Pressure 200 psi, Burst Pressure 750 psi, MOC of Vessel FRP, Brand of FRP Vessel Pentair/Giber/Topklean, Type of Media-Coconut Sheel Activated Carbon & Quartz Sand & Gravel, Iodine Adsorption -800 mg/g min, Ash- 3% Max, Moisture-5% Max, Brand of Activated Carbon Media- Gaia /Hi-carb manufactured in Malaysia/Sri Lanka complete and accepted by the Project Manager.	Supplying, fitting and fixing of Activated Carbon Pressure Type Filter, Capacity 4 m3/hr, 525 mm x 1550 mm, working temperature 1-49° c, Lowest Environmental Temperature -27° c Operating Pressure 150 psi, Testing Pressure 200 psi, Burst Pressure 750 psi, MOC of Vessel FRP, Brand of FRP Vessel: To be mentioned by the bidder, Type of Media- Coconut Sheel Activated Carbon & Quartz Sand & Gravel, Iodine Adsorption -800 mg/g min, Ash- 3% Max, Moisture-5% Max, Brand of Activated Carbon Media:-To be mentioned by the bidder Origin (manufacturer): USA/EU/UK/Japan/Malaysia/Sri Lanka
6	Bidding Document	146	6.2 Specification Item No: 5.1	Anti-Scalant Dosing Supplying, fitting and fixing of Anti-scalant Dosing System, Diaphragm Metering Pump, Capacity 1.1 LPH / SLP H, Working Pressure-7 Bar, MOC of pump	Supplying, fitting and fixing of Anti-scalant Dosing System (including dosing Tank, MOC: HDPE, capacity: 60 Ltr), Diaphragm Metering Pump, Capacity 1.1 LPH / SLP H,

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				Head Teflon/PVDF, Power 9.20 W 220 V, 1P, 50Hz, Brand- Seko/Pulsa feeder manufactured in USA / EU. all complete and accepted by the Project Manager.	Working Pressure-7 Bar, MOC of pump Head Teflon/PVDF, Power 9.20 W 220 V, 1P, 50Hz, Brand- To be mentioned by the bidder Origin (Manufacturer): USA/EU/UK/Japan.
7	Bidding Document	146	6.2 Specification Item No: 5.2	Micron Filter Supplying, fitting and fixing of Cartridge filter Capacity 4 m3/hr, 5:1 nos filter housing, MOC of filter Housing- HDPE/UPVC, Filter size-L-30" D-2.5", Filter rate 5 Micron, MOC of filter- Polypropylene, Brand of filter- Lanshan/Sanaky/Heron all complete and accepted by the Project Manager.	Supplying, fitting and fixing of Cartridge filter Capacity 4 m3/hr, 5:1 nos filter housing, MOC of filter Housing - HDPE/UPVC, Filter size-L-30" D-2.5", Filter rate 5 Micron, MOC of filter-Polypropylene, Brand and Origin of filter: To be mentioned by the bidder.
8	Bidding Document	146	6.2 Specification Item No: 5.3	High Pressure Pump Supplying, fitting and fixing of CIP Pump type Mono-block Centrifugal, Capacity-4 m3/hr. Head 147 Meters, Power 4 kw, 400 V. 3 phase, MOC-AISI304, Protection Class- IP55, Insulation Class- F, Brand- Apex/DAB manufactured in USA/EU/UK/Japan all complete and accepted by the Project Manager.	Supplying, fitting and fixing of Vertical Multi-stage High Pressure Pump. Capacity-4 m3/hr. Head 147 Meters, Power 4 kw, 400 V. 3 phase, MOC-AISI304, Protection Class- IP55, Insulation Class- F Brand-To be mentioned by the bidder Origin (Manufacturer): USA/EU/UK/Japan.
9	Bidding Document	146	6.2 Specification Item No: 5.4	RO Membrane Housing Supplying, fitting and fixing of Reverse Osmosis Membrane Housing Double Element, Diameter of Membrane Housing 4.0 Inch, Length of Membrane 40 Inch, Double Element Material of construction FRP, Max Pressure: 4040 psi, Non-Corrosive and Maintenance Free Brand of Membrane Housing- Gfliber/Codeline/ Heron manufactured in USA/EU all complete and accepted by the Project Manager	Supplying, fitting and fixing of Reverse Osmosis Membrane Housing Double Element, Diameter of Membrane Housing 4.0 Inch, Length of Membrane 40 Inch, Double Element Material of construction FRP, Max Pressure: 4040 psi, Non-Corrosive and Maintenance Free Brand of Membrane Housing- To be mentioned by the bidder Origin (manufacturer): USA/EU/UK/Japan
10	Bidding Document	146	6.2 Specification Item No: 5.5	Reverse Osmosis (RO) Membrane Supplying, fitting and fixing of Reverse Osmosis Blackish Water Membrane, Diameter of Membrane 4.0 inch, Size of Membrane-4040, Type of RO Membrane - Polyamide Thin-Film Composite Membrane, Brand of Membrane-	Supplying, fitting and fixing of Reverse Osmosis Blackish Water Membrane, Diameter of Membrane 4.0 inch, Size of Membrane-4040, Type of RO Membrane - Polyamide Thin-Film Composite Membrane,

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				Oltremare/Membranum/Toray manufactured in USA/EU/Japan all complete and accepted by the Project Manager.	Brand of Membrane-To be mentioned by the bidder Origin (Manufacturer): USA/EU/UK/Japan	
11	Bidding Document	146	6.2 Specification Item No: 5.6	PH Correction Unit	Supplying, fitting and fixing of PH correction unit dosing pump type Diaphragm Metering Pump, Capacity 1.1 LPH Working Pressure-7 Bar, MOC of pump Head Teflon/PVDF, Power 9.20 W 220 V, 1P, 50Hz, Brand- Seko /Pulsafeeder manufactured in USA / EU. all complete and accepted by the Project Manager.	Supplying, fitting and fixing of PH correction unit dosing pump type Diaphragm Metering Pump, Capacity 1.1 LPH Working Pressure-7 Bar, MOC of pump Head Teflon/PVDF, Power 9.20 W 220 V, 1P, 50Hz, Brand- To be mentioned by the bidder Origin (Manufacturer): USA / EU/UK/Japan.
12	Bidding Document	147	6.2 Specification Item No: 5.7	PH correction dosing tank	Supplying, fitting and fixing of PH correction dosing tank Capacity 60 Ltr/100 ltr , MOC HDPE/PVC, Brand of tank - Gfiber or local manufactured in USA/Bangladesh all complete and accepted by the Project Manager.	Supplying, fitting and fixing of PH correction dosing tank Capacity 60 Ltr/100 ltr , MOC HDPE/PVC, Brand of tank - To be mentioned by the bidder Origin (Manufacturer): To be mentioned by the bidder.
13	Bidding Document	147	6.2 Specification Item No: 5.9	Flow Meter	Supplying, fitting and fixing of Flow Meter for RO permeate & Concentrate measurement, 1 inch size Rota type flowmeter, Range 0.25-2.5 m3/hr, brand of meter Heron/LZS manufactured in Taiwan/China all complete and accepted by the Project Manager.	Supplying, fitting and fixing of Flow Meter for RO permeate & Concentrate measurement, 1 inch size Rota type flowmeter, Range 0.25-2.5 m3/hr, Brand of meter: To be mentioned by the bidder Origin (Manufacturer): To be mentioned by the bidder.
14	Bidding Document	147	6.2 Specification Item No: 6	Electric Control Panel	CONTROL PANEL: Supply and installation of metal clad type, three phase 400 V, ±5% V, 50 Hz, Automatic motor starter complete with contactor, phase failure etc. of the require range of rated current including supply of required fixing materials. Electro Magnetic Equipment: Electro Magnetic Equipment consist of Magnetic Conductor, Overload Relay, Timer, Automatic Motor Starting System,	CONTROL PANEL: Supply and installation of metal clad type, three phase 400 V, ±5% V, 50 Hz, Automatic motor starter complete with contactor, phase failure etc. of the require range of rated current including supply of required fixing materials. Electro Magnetic Equipment: Electro Magnetic Equipment consist of Magnetic Conductor, Overload Relay, Timer, Automatic Motor Starting System, Indicator Lamp and

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				Indicator Lamp and necessary equipment to run the plant efficiently. Brand of major Component shall be Schneider Electric as per direction of the Project Manager	necessary equipment to run the plant efficiently. Brand of major Component shall be Schneider Electric or equivalent.
15	Bidding Document	147	6.2 Specification Item No: 7	CIP (Cleaning in Place) CIP Pump- 01 Unit, Quantity- 01 Unit, 2m3/H, Head-40m, Power - 1.1 KW, Type-Centrifugal, Brand: DAB, Origin : Italy	CIP Pump- 01 Unit, Quantity- 01 Unit, 2m3/H, Head-40m, Power - 1.1 KW, Type-Centrifugal Brand: To be mentioned by the bidder, Origin (Manufacturer): USA/EU/UK/Japan.
16	Bidding Document	147	6.2 Specification Item No: 8	CIP Cartridge Filter Supplying, fitting and fixing of Cartridge filter for CIP, Capacity 2 m3/hr, 1 nos filter housing, Moc of filter Housing- HDPE/PVC, Filter size-L-20" D-4", Filter rate 5Micron, Moc of filter- Polypropylene, Brand of filter- Lanshan/Sanaky/Pentair all complete and accepted by the Project Manager.	Supplying, fitting and fixing of Cartridge filter for CIP, Capacity 2 m3/hr, 1 nos filter housing, Moc of filter Housing -HDPE/PVC, Filter size-L-20" D-4", Filter rate 5Micron, Moc of filter-Polypropylene, Brand of filter- To be mentioned by the bidder. Origin (Manufacturer): To be mentioned by the bidder.
17	Bidding Document	147	6.2 Specification Item No: 9	CIP Heater CIP Tank Capacity: 500 Ltr, MOC-PVC, Power of Heater- 01 Pcs k kw, Thermometer- 01 pc	CIP Tank Capacity: 500 Ltr, MOC-PVC, Power of Heater- 1 kw, Thermometer- 01 pc
18	Bidding Document	147	6.2 Specification Item No: 10	RO Treated Water Storage Tank Capacity- 5000 Ltr. MOC-PVC, Certification- Food Grade, Brand:Sera/Gazi,Origin- BD	Capacity- 5000 Ltr. MOC-PVC, Certification- Food Grade, Brand: To be mentioned by the bidder, Origin- To be mentioned by the bidder
19	Bidding Document	147	6.2 Specification Item No: 11	uPVC Pipe and Fittings Supply and installation of uPVC pipe and fitting, Food Grade, 40 Schedule, E- class, white/gray brand of pipe ERA/Leso manufactured in China/Taiwan/Bangladesh and accepted by the Project Manager.	Supply and installation of uPVC pipe and fitting, Food Grade, 40 Schedule, E- class, white/gray brand of pipe: To be mentioned by the bidder Origin (Manufacturer): To be mentioned by the bidder.
20	Bidding Document	124	Form PG5A-3 Schedule-2	Price Schedule for Plant and Service (Form PG5A-3)	Line Item No: 14 Item Description: Necessary consumable chemicals required till defect liability period Unit of measurement: Lot Quantity: 1 Lot

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					<p><b>Line Item No: 15</b>  Item Description: Any other item that is required to fulfill the scope of the tender to be added by the bidder.</p>
21	Bidding Document	40	TDS referring to ITT 15.1 (a)	C. Qualification Criteria	<p>The required average annual turnover shall be greater than Tk. 2 (Two) Crore within the last 03 (three) years.</p> <p>The required average annual turnover shall be greater than Tk. <b>1.25 (One point Two Five) Crore</b> within the last 03 (three) years. Audited financial statement for turnover is needed to be submitted.</p>

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