AMENDMENT-VI

Dated: 18.08.2025

SUBJECT: Tender for "Supply, installation and training of Desalination Plant for Republic of Marshall Islands (RMI) and Kerema, Papua New Guinea (PNG)."

Tender no.: HSCC/PUR/MEA-RMI & PNG /DESALINATION/2025/117 Dated 03.07.2025

Amedment in the Reply of Pre Bid Queries uploaded as Amendment-IV.

Sr. No.	Tender Clause/Para Ref.	Clause/Para Discription	Representation /query from bidder	Existing Reply as per Amendment-IV	Shall be read as
1	33. General/Miscellaneous Clauses, 33.4 on page 31 of 100	Each member/constituent of the Supplier/its Indian Agent/CMC Provider, in case of consortium shall be jointly and severally liable to and responsible for all obligations towards the Purchaser/Consignee/Government for performance of contract/services including that of its Associates/Sub Contractors under the Contract.	Please confirm the joint venture (JV) conditions in details. Like no. of partners and condition for lead partner and condition for other partners.	Joint Venture (JV) is not allowed in this tender.	No change
2		General Query	As this is a turnkey project and the civil works fall within the bidder's scope, we kindly request you to provide the soil bearing capacity report and relevant topographical survey data to enablea comprehensive evaluation of the project.	The soil bearing capacity report is enclosed herewith	No change
3		General Query	Please specify the pipeline lengths to be considered for the intake, outfall, and brine discharge associated with the project.	Approx. 700m for intake and outfall etc.	Approx. 500m(+/- 20%) for intake and outfall etc as per plant design and connection as per site conditions.

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4		General Query	Kindly also confirm the required capacity of the potable water tank to be provided with each RO system.	No Change, As per Tender Condition. Bidder shall do design engineering for smooth functionality of desalination plant based on specification and tender condition	**For PNG**: Capacity for raw water tank and Potable water tank is 100 KL x 2 and 1 tank of 1 KL for CIP system. This has been ascertained after dicsussion with the local authorities there. **For Marshall:** Only one raw water tank of 180 KLD is required. Additionally, one 1 KL tank is required for CIP (Cleaning-In-Place) purposes and RO permeate water (potable water) tank is not required, as the Marshall Water Company reservoir exists near the site and can directly store the potable water.
5	Section IX, Point 2.	Experience criteria: Bidder or OEM should have following Experience during the last Seven (7) years ending previous day of last date of submission of tenders : a) Three *similar works each costing not less than Rs. 12 Cr. OR b) Two *similar works each costing not less than 18 Cr. OR c) One *similar work costing not less than 24 Cr. *Similar works" shall mean "SWRO (Seawater Reverse Osmosis) technology desalination plant with a minimum capacity of 300 KLD or multiple plants totaling (at least three) greater than or equal to 600 KLD, commissioned within last 7 years with power backup through Solar Photo Voltaic (SPV) or Genset. Plants must have been operational for at least 12 months prior to technical bid opening date."	We request you to also accept Tertiary RO powered through power connection meeting the required flow capacity and value as mentioned above	No Change, As per Tender Condition.	No change

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6	Section IX, Point 4.	The Bidder or OEM should have design, supplied, installed and commissioned (roof /Ground) Solar Photo Voltaic (SPV) system of cumulative capacity of 5 MW in last Seven years. These projects must be in Operation for at least one (1) year after commissioning prior to the technical bid opening date.	We kindly request that you permit us to collaborate with a qualified OEM partner to meet the eligibility criteria for this project, as it is unlikely that any water treatment company alone would possess prior experience with a solar plant of this scale.	No Change, As per Tender Condition.	No change
7	Marshall Island(Specs) (Page no 39)	Required quality of Treated waterConductivity: 200 Micro mhos/cm	It should be below 300TDS instead of conductivity. The World Health Organization (WHO) recommends a TDS level of less than 300 mg/L for drinking water.	clause no. 19 page No. 50, shall be read as " Required quality of treated water conductivity: 700-1000 Micro mhos/cm".	This conductivity of 200 is to be changed to 700-1000 Micro mhos/cm. This is also acceptable as per WHO norms. Presently, the drinking water at PNG also is in the range of 700-1000 Micro mhos/cm.
8			Below 300 TDS instead of conductivity as per WHO recommendations.		
9	Marshall Island (Specs)	Operating Data for Filter: Nos. of Streams offe	Nos. of System offered-1 No 1. Only 1 system is required which has 15 streams or more for filtering raw water. 2. Considering the limited space available in the container, we propose the implementation of a singlestream configuration. 3. To achieve the same outcome, highly efficient membrane with superior salt rejection capabilities is already asked in the specifications.	No Change, As per Tender Condition.	In the tender, no. of streams has been mentioned but this is streams within a single filtration system. We had recommended filtration system of Ajud/Amaid. These systems does comprise of 15 streams in 1 system. They may vary as per the flow of the water. Instead of no. of stream, we have to read it as 1 filtration system having 15 or more streams. Hence, this representation can be considered.
10			Nos. of System offered-1 No It contains 15 streams		
11	Marshall Island (Specs)	Operating Data for 2 Pass RO Plant: 1. Nos. of Streams offered 1 No. 2. Feed flow rate per stream - 88.18m3/hr 3. Product flow rate per stream - 29.1m3/hr 6. Operating Hours - 22Hrs 7. Mode of Operation -Automatic	2 pass system is not required because desirable results will come in the single pass only. Moreover, it will also take a lot of space in the container which may not be feasible.	No Change, As per Tender Condition.	To achieve this conductivity of 600-700 Micro mhos/cm 2 pass system is not required as there is a space contrant in the container. Single pass is sufficient.
12			Kindly delete this clause The same outcome can be achieved from single pass system		

Sr. No.	Tender Clause/Para Ref.	Clause/Para Discription	Representation /query from bidder	Existing Reply as per Amendment-IV	Shall be read as
13	Marshall Island (Specs)	Water Treatment Plant: Pre–Treatment for Desalination Plant 2. Stilling chamber – NaOCl dosage from ECP to remove Algae. 3. Flash mixer – Fecl3 coagulant dosage to remove turbidity. 4. Flocculator–coagulant aid–poly electrolyte dosage to remove colloidal silica 5. Clarifier 7. Filter water storage.	We propose to Electro chlorination system instead of all above chemicals dosing system. Since, the above mentioned chemicals are not available at the site, and transporting HCl is articularly challenging. Hence, to ensure successful installation and operations we request this change.	No Change, As per Tender Condition.	Correspondence with the local authorities, it has been found out that liquid chlorine is not available for dosing so electrochlorination system came into the picture. For PNG, 2 Kg in a batch for 8 hrs is required and for Marshall, 4 Kg in a batch for 8 hrs
14			Kindly delete this clause Electro chlorination system is required instead of water treatment plant as there will be no availability of required chemicals.		
15	Marshall Island (Specs)	5. ENERGY REQUIREMENTS Local Electricity Supply Standards In Majuro, the capital of the Republic of the Marshall Islands, the standard grid supply voltage For commercial use is indeed 480 volts (phase-tophase voltage) at a frequency of 60Hz. For highvoltage distribution within the grid, systems typically operate at 11 kilo volts (kV)or higher, enabling efficient transmission of electricity over longer distances before being stepped down to the standard voltage for consumer use.	n Majuro, the capital of the Republic of the Marshall Islands, the standard grid supply voltage For commercial use is indeed 480 volts (phase-tophase voltage) at a frequency of 60Hz. For highvoltage distribution within the grid, systems typically operate at 4.16 kilo volts (kV)or higher, enabling efficient transmission of electricity over longer distances before being stepped down to the standard voltage for consumer use. 4.16 kilo volts (kV) is sufficient for the operations of the plant. This specification is for supply of step down transformer	No Change, As per Tender Condition.	a step down transformer to achieve 4.16 Kilo volts voltage is also included.
16	Marshall Islands (RMI)	5. ENERGY REQUIREMENTS For high-voltage distribution within the grid, systems typically operate at 11 kilo volts (kV)or higher, enabling efficient transmission of electricity over longer distances before being stepped down to the standard voltage for consumer use.	4.10 volts in sufficient for the functioning of the plant		
17	Marshall Island (Specs)	6. EQUIPMENTS INVOLVED IN DESALINATION PLANT Disc filter- 2Nos(1W+1S)	Disc filter- 1 no.sI disc filter is sufficient to get the desired results.	No Change, As per Tender Condition.	May be considered as desired results can be achieved and it will occupy less space in the container.
			Disc filter- 1 no.s		

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18	Marshall Island (Specs)	Acid dosing pump2Nos(1W+1S)	Anti Scalant dosing pump2Nos(1W+1S) There is no acid component hence, anti scalant pump is required. Anti Scalant dosing pump-2Nos(1W+1S)	No Change, As per Tender Condition.	Anti scalant dosing pumps (1W+1S) will also be part of electroclorination system.
19	Papua New Guinea (PNG) (Specs)	Request to add additional points:	17. Inflow Capacity 910 m3 Recovery:33 % Daily Capacity: 20m3 /20x15=300 KLD, Input parameter table is not provided in the Tender document. Kindly add the same.	No Change, As per Tender Condition	This is in accordance with the plant design and can be considered.
20	Papua New Guinea (PNG) (Specs)	Water Inflow and Requirements: Inflow Capacity: Each infiltration well has an inflow capacity of approximately 10 m^3 per hour. Total Inflow: With three wells in operation, the total inflow is: Total Inflow = 10 m^3/h x 3 = 30 m^3/hour. Daily Water Requirement: For the operation of the desalination plant, a total of 30 m^3 per hour is needed, which translates to 30m3/hour into 24 hours = 720m^3/day However, if the stated requirement is 600 m^3 per day, this indicates that the system is designed to manage within the available inflow and operational capacity.	Request to delete As the capacity has already been fixed, this is not required. Kindly delete this clause as there is fixed capacity mentioned in the tender	No Change, As per Tender Condition	For PNG, the capacity of the plant is 300 KLD per day at 33% recovery. So, inflow will be inaccorndance to the same to achieve the desired result. For Marshall, the capacity of the plant is 640 KLD per day at 33% recovery. So, inflow will be inaccorndance to the same to achieve the desired result.
21	Papua New Guinea (PNG) (Specs)	Operational Considerations: Sufficiency of Water Supply: While the initial analysis indicates that the total inflow from the wells (720 m^3/day) exceeds the daily requirement (600 m^3/day), this provides a buffer to ensure consistent operation and accounts for any potential fluctuations in inflow.	Request to delete As the capacity has already been fixed, this is not required. Kindly delete this clause as there is fixed capacity mentioned in the tender	No Change, As per Tender Condition	For PNG, the capacity of the plant is 300 KLD per day at 33% recovery. So, inflow will be inaccorndance to the same to achieve the desired result. For Marshall, the capacity of the plant is 640 KLD per day at 33% recovery. So, inflow will be inaccorndance to the same to achieve the desired result.

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22	Papua New Guinea (PNG) (Specs)	20. SCOPE OF WORK Operating Data for Filter: Nos. of Streams offered- 4nos	Nos. of System offered- 1nos There are 4 streams inside one single system, hence the complete system is required which contains 4 streams. Or more to filtering volume of water Nos. of System offered- 1nos It contains 4 s	No Change, As per Tender Condition.	In the tender, no. of streams has been mentioned but this is streams within a single filtration system. We had recommended filtration system of Ajud/Amaid. They may vary as per the flow of the water. Instead of no. of stream, we have to read it as 1 filtration system having 4 or more streams.
23	Papua New Guinea (PNG) (Specs)	Operating Data Ultra Filtration: Nos. of Streams offered- 8 nos	Nos. of System offered- 1nos There are 8 streams inside one single system, hence the complete system is required which contains 8 streams. Or more for filtering water raw input flow.	No Change, As per Tender Condition.	In the tender, no. of streams has been mentioned but this is streams within a single filtration system. We had recommended filtration system of Ajud/Amaid. They may vary as per the flow of the water. Instead of no. of stream, we have to read it as 1 filtration system having 8 or more streams.
24			Nos. of System offered- 1nos It contains 8 streamsNos. of System offered- 1nos It contains 8 streams		
25		Request for additional specifications:	1. 640 KLD to be accommodated in two 40 ft containers. 2. 300 KLD to be accommodated in two containers one 20 ft and one 40 ft. 3. Seawater bore is to be under the scope of the supplier. 4. Consumables for one year to be supplied by the supplier. Input Parameter table: Inflow Capacity 910 m3 Recovery 33%Daily Capacity 20m3 /20x15=300 KLD • 2 no.(s) 40 ft containers for 640 KLD • 1 no. 20 ft and 1 no. 40 ft. containers for 300 KLD • Seawater bore has to be done by the vendor. • One year consumables supply has to be made by the vendor.	No Change, As per Tender Condition	Can be consider as per design

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26	General Clauses:	Delivery and Supply: The supply (with its design, and fabrication as per specifications), installation at the consignee site should be completed within 150 days from NOA/LOA (Dispatch should be within 60days from PO, and final delivery at consignee site, Installation, commissioning etc within 150 days from date of PO). The bidder will also provide onsite training to the locally authorized persons for operation and routine maintenance of desalination plant. Bidders shall be responsible to provide End to End solution for Supply, Inspection, Insurance, Freight, Local Transportation & Air/Sea Transportation,Handling, Custom Clearance, Handing-over etc to the Consignee	Delivery and Supply: The supply (with its design, and fabrication as per specifications), installation at the consignee site should be completed within 280 days from NOA/LOA (Dispatch should be within 180 days from PO, and final delivery at consignee site, Installation, commissioning etc within 280 days from date of PO).	No Change, As per Tender Condition	The complete supply- including design, fabrication as per specifications, delivery, installation & testing at the consignee site-shall be executed within 270 days from the dated of NOA/LOA. Dispatch must be completed within 120 days from the Purchase Order (PO) date. Final delivery, along with installation, tesing, commissioning, and other associated activities, must be completed within 270 days From the PO date
27			Delivery and Supply: The supply (with its design, and fabrication as per specifications), installation at the consignee site should be completed within 270 days from NOA/LOA (Dispatch should be within 150 days rom PO, and final delivery at consignee site, Installation, commissioning etc within 270 days from date of PO). The bidder will also provide onsite training to the locally authorized persons for operation and routine maintenance of desalination plant. Bidders shall be responsible to provide End to End solution for Supply, Inspection, Insurance, Freight, Local Transportation & Air/Sea Transportation, Handling, Custom Clearance, Handing-over etc to the Consignee 1. Major components like the pump and energy recovery system require a minimum lead time of 15 to 18 weeks 2. All materials arriving at the site by sea may require a lead time and clearance period of up to 60 to 75 days. 3. Site preparation, installation, and commissioning may take approximately 60 days	No Change, As per Tender Condition	The complete supply- including design, fabrication as per specifications, delivery, installation & testing at the consignee site-shall be executed within 270 days from the dated of NOA/LOA. Dispatch must be completed within 120 days from the Purchase Order (PO) date. Final delivery, along with installation, tesing, commissioning, and other associated activities, must be completed within 270 days From the PO date

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28	General Clauses:	Pg. 10, Clause 17.2, Sub-Clause a) In case the tenderer offers to supply goods, which are manufactured by some other firm, the tenderer has been duly authorised by the goods manufacturer to quote for and supply the goods to the purchaser. The tenderer shall submit the manufacturer's authorization letter to this effect as per the standard form provided under Section XIV in this document. However, in case of an equipment without such authorization at the time of submission of bid, the undertaking from the bidder to be submitted to comply with the condition and submit the manufacturer's authorization letter at the time of supply. The bidder must provide details of make and model for the quoted products.	In case the tenderer offers to supply goods, which are manufactured by some other firm, the tenderer has been duly authorised by the goods manufacturer to quote for and supply the goods to the purchaser. The **tenderer shall mandatory submit the manufacturer's authorization letter** to this effect as per the standard form provided under Section XIV in this document **during the submission of the technical bid.**	No Change, As per Tender Condition	No change
29		Pg-64, Section – IX Qualification Criteria, Clause 6 Other documents: Bidder should submit the manufacturer's authorization letters, technical compliance statements and quality certifications as per the technical specifications for the following critical components: a) Reverse Osmosis (RO) based Seawater Desalination Plant b) RO membranes c) High-pressure pumps d) Energy Recovery Devices e) Disc Filter f) Solar Panel g) Gensets	Other documents: Bidder should **mandatory submit the manufacturer's authorization letters,** technical compliance statements and quality certifications as per the technical specifications for the following critical components: a) Reverse Osmosis (RO) based Seawater Desalination Plant b) RO membranes c) High-pressure pumps d) Energy Recovery Devices e) Disc Filter f) Solar Panel g) Gensets	No Change, As per Tender Condition	No change

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30		Pg. 75 SECTION – XIV MANUFACTURER'S AUTHORISATION FORM (In case of an equipment without such authorization at the time of submission of bid, the undertaking from the bidder to be submitted to comply with the condition and submit the manufacturer's authorization letter at the time of supply)	Kindly remove: (In case of an equipment without such authorization at the time of submission of bid, the undertaking from the bidder to be submitted to comply with the condition and submit the manufacturer's authorization letter at the time of supply)	No Change, As per Tender Condition	No change

All other terms & conditions remain unchanged.

Prospective bidders are advised to regularly visit through HSCC e-tender portal https://hscc.enivida.com, HSCC website http://www.hsccltd.co.in & CPP Portal https://eprocure.gov.in/epublish/app as corrigendum/amendments etc., if any, will be notified on this portal only and not be published anywhere else.

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