

MARSHALLS ENERGY COMPANY INC.

P.O. Box1439 - Majuro - Marshall Islands -MH 96960 Tel.(692)625-3827 -Fax(692)625-3397 Emailmeccorp@ntamar.net

REQUEST FOR QUOTATION (Re-invited) (RFQ-R)

Date: Nov 16, 2020

Project Title:

Sustainable Energy Development Project (SEDeP)

Source of Funding

(Grant no.): D261-MH

Contract Name: Supply and Installation of Charging Stations and Central Management

System for EV pilot project at Majuro, Republic of Marshall Islands

Contract Ref: MH-MEC-160488-GO-RFQ (Re-invited) (RFQ-R)

Dear Supplier,

1. You are invited to submit your price quotation(s) for the supply of the following items:

- A. Supply dual-port AC chargers with 6-10 kW output power per port, control panel, communication functions, and cable management system (3 charging units, 6 ports)
- B. Installation works for the EV charging stations including the civil works and the electrical works at 3 (three) sites of NEO office, MEC Headquarter and Majuro Airport (1 set)
- C. Central Management System (CMS) including back office provisioning, configuration, activation of chargers (or ports) (3 charging units, 6 ports)
- D. 2 Years of EVSE Cloud network services (1 set)
- E. Training/documentation (1 set)

Information on technical specifications and required quantities are attached.

- 2. You must quote for all the items under this RFQ. Price quotations will be evaluated for all the items together and contract awarded to the supplier offering the lowest evaluated total price of all the items, if substantially responsive to the technical specifications.
- 3. As the scope of work involves supply and installation of imported equipment and also some civil works, we encourage international bidders to team-up with local contractors. We will accept the bids either with international bidders taking the lead teaming up with local contractors or the local contractors taking the lead teaming up with international suppliers.
- 4. MEC will organise a pre-bid virtual meeting on Dec 15, 2020 at 10.00 AM (Majuro time). All interested international suppliers and local contractors will be invited to the pre-bid meeting.

The link to join the virtual Teams meeting is below:

https://teams.microsoft.com/l/meetup-

 $join/19\%3 a meeting _ZTYyNTJIY2EtNjQwMy00NWY0LWE4ZmYtNGI2YzIIMjM1NDE2\%40 thread.v2/0?context = \%7b\%22Tid\%22\%3a\%2271c02d1b-bac0-467f-94a9-$

cd8967fea3fb%22%2c%22Oid%22%3a%227a68d912-d0b4-4fe3-8ab1-a871604fe413%22%7d

5. Your price quotation in the forms attached (Annexes 1, 3 and 4) may be submitted by hand delivery, post or electronically at the following address:

Jack Chong-Gum, CEO

Marshalls Energy Company (MEC) P O Box 1439, Majuro, Marshall Islands 96960 jack.chonggum@mecrmi.com
Phone no. (692) 625 3827/8

Fax: (692) 625-5886

Cc the following:

Kamalesh Doshi

SEDeP Project Manager Phone no. +1 (802) 310 2682

E-mail: kamaleshdoshi@mecrmi.net

Mylyn Caraig,

Procurement Advisor- CIU, DIDA Email:proc_advice_rmi@yahoo.com

Takaaki Ito

SEDeP Project Implementation Officer E-mail: takaaki.ito@mecrmi.com

- The deadline for receipt of your quotation(s) by the Purchaser at the address indicated in above Paragraph 3 is: Jan 15, 2021 5:00 PM (Majuro time UTC+12)
- 7. Your quotation in English language, should be accompanied by adequate technical documentation and catalogue(s) and other printed material or pertinent information (in English) for each item quoted.
- 8. Your quotation(s) should be submitted as per the following instructions and in accordance with the attached Contract. The attached Terms and Conditions of Supply is an integral part of the Contract.

9. PRICES

- (a) For Goods to be imported: The prices should be quoted in US Dollars for the total CIP price, to the final destination *Attention: Jack Chong-gum, CEO, Marshalls Energy Company (MEC), Administrative Office, P O Box 1439,Majuro, Marshall Islands MH 96960.*
- (b) As per the financing agreement with GRMI no import duties and taxes will be payable on goods imported under the SEDeP.
- (c) The RMI income tax rate for gross income earned by non-residents is 10%.

10. **EVALUATION OF QUOTATIONS**

 For Goods to be imported: Offers determined to be substantially responsive to the technical specifications will be evaluated by comparison of the total CIP prices to the final destination, in accordance with Paragraph 2 above.

- ii. In evaluating the quotations, the Purchaser will determine for each quotation the evaluated price by adjusting the price quotation by making any correction for any arithmetical errors as follows:
 - a. where there is a discrepancy between amounts in figures and in words, the amount in words will govern;
 - b. where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern;
 - c. if a Supplier refuses to accept the correction, his quotation will be rejected.
- 11. <u>AWARD OF CONTRACT:</u> The award will be made to the bidder offering the lowest evaluated price and offering goods which are substantially responsive to the technical specifications. The successful bidder will sign a Contract as per attached form of contract and terms and conditions of supply.
- 12. <u>VALIDITY OF THE OFFER:</u> Your quotation(s) should be valid for a period of ninety (90) days from the deadline for receipt of quotation(s) indicated in Paragraph 4 of this RFQ.
- 13. Further information can be obtained from:

Attention: Kamalesh Doshi, Project Manager, SEDeP Marshalls Energy Company P O Box 1439 Majuro, Marshall Islands MH 96960 +1 (802) 310 2682

E-mail: kamaleshdoshi@mecrmi.net

And/or

Attention: Takaaki Ito
SEDeP Project Implementation Officer
Marshalls Energy Company
P O Box 1439
Majuro, Marshall Islands MH 96960
E-mail: takaak.ito@mecrmi.com

14. Please confirm by fax/e-mail the receipt of this RFQ and whether or not you will submit the price quotation(s).

Sincerely,

Kamalesh Doshi

Project Manager (SEDeP)

NOTIFICATION OF AWARD (RFQ-GOODS)

[use letterhead paper of the Purchaser]

[date]

To: [name and address of the Supplier]

Project Title: Sustainable Energy Development Project (SEDeP)

Source of Funding

(Grant no.): D261-MH

Contract Name: Supply and Installation of Charging Stations and Central Management

System for EV pilot project at Majuro, Republic of Marshall Islands

Contract Ref: MH-MEC-160488-GO-RFQ (Re-invited) (RFQ-R)

Notification of Award

This is to notify you that your Quotation dated [insert date] for Supply and Installation of Charging Stations and Central Management System for EV pilot project at Majuro, Republic of Marshall Islands is hereby accepted for the Contract Amount of [insert currency and amount in numbers and words], as corrected and modified in accordance with the Request for Quotation.

You are hereby required to counter-sign the attached Contract Agreement (including Annexes) and return it to the Purchaser within seven (7) days of receipt of this Notification.

Sincerely,

Name and title of the Purchaser's authorized person

Attachment: Contract Agreement (with Annexes) completed and signed by Purchaser

FORM OF CONTRACT (RFQ-GOODS)

/grant no.): D261-MH Contract Name: Supply and Installation of Charging Stations and Central Management System for EV pilot project at Majuro, Republic of Marshall Islands Contract Ref: MH-MEC-160488-GO-RFQ (Re-invited) (RFQ-R) THIS AGREEMENT number made on(day), _(month),(year) between (hereinafter called "the Purchaser") on the one part and	Project Title: Source of Fundi (Loan/credit	ng	Sustainable Energy Development Project (SEDeP)
Supply and Installation of Charging Stations and Central Management System for EV pilot project at Majuro, Republic of Marshall Islands MH-MEC-160488-GO-RFQ (Re-invited) (RFQ-R) THIS AGREEMENT number made on(day), _(month)_,(year) between (hereinafter called "the Purchaser") on the one part and (hereinafter called "the Supplier") on the other part WHEREAS the Purchaser has invited quotations for Supply and Installation of Charging Stations an Central Management System for EV pilot project at Majuro, Republic of Marshall Islands to be supplied by Supplier, viz. Contract, (hereinafter called "the Contract") and has accepted the quotation by the Supplier for the supply of goods under the Contract at the sum of () (hereinafter called "the Contract Price"). NOW THIS AGREEMENT WITNESSES as follows: 1. The following documents shall be deemed to form and be read and constructed as part of this agreement, viz: a) This signed contract agreement; b) Supplier's Quotation (including signed Form of Quotation, Terms and Conditions of Supply, Technical Specifications, and signed Statement of Technical Compliance); and	•		D261-MH
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b) Supplier's Quotation (including signed Form of Quotation, Terms and Conditions of Supply, Technical Specifications, and signed Statement of Technical Compliance); and	1.		<u> </u>
c) Addendum (if applicable);			Supplier's Quotation (including signed Form of Quotation, Terms and Conditions of Supply, Technical Specifications, and signed Statement of
		c)	Addendum (if applicable);

- 2. Taking into account payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby concludes an Agreement with the Purchaser to execute and complete the Contract and remedy any defects therein in conformity with the provisions of the Contract.
- 3. The Purchaser hereby covenants to pay in consideration of the Goods supply and acceptance in accordance with the Contract and remedying of defects therein, the Contract Price in accordance with Payment Conditions prescribed by the Contract.
- 4. <u>Applicable Law.</u> The Contract shall be interpreted in accordance with the laws of the Republic of Marshall Islands.
- 5. <u>Force-Majeure</u>. The supplier shall not be liable for penalties or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force-Majeure.

For purposes of this clause, "Force-Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable.

Such events may include, but are not restricted to, act of Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

If a Force-Majeure situation arises, the Supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by Force-Majeure event.

- 6. Resolution of Disputes. The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute between them under or in connection with the Contract. In the case of a dispute between the Purchaser and the Supplier, the dispute shall be settled in accordance with the country procedures of the Purchaser's country. The dispute shall be referred to jurisdiction at the Courts of Majuro, Marshall Islands.
- 7. <u>Failure to Perform</u>. The Purchaser may cancel the Contract if the Supplier fails to deliver the Goods in accordance with this Contract with a 14-day notice given by the Purchaser, without incurring any liability to the Supplier.
- 8. Fraud and Corruption. If the Purchaser determines that the Supplier and/or any of its personnel, or its agents, or its Subcontractors, consultants, service providers, suppliers and/or their employees has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices (as defined in the prevailing World Bank's sanctions procedures), in competing for or in executing the Contract, then the Purchaser may, after giving 14 days' notice to the Supplier, terminate the Contract. The Bank further requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Attachment 1 to this Contract.

9. <u>Inspections and Audits</u>

- 9.1 The Supplier shall carry out all instructions of the Purchaser which comply with the applicable laws where the destination is located.
- 9.2 The Supplier shall permit, and shall cause its Subcontractors and consultants to permit, the World Bank ("the Bank") and/or persons appointed by the Bank to inspect the Supplier's offices and all accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Supplier's and its Subcontractors and consultants' attention is drawn to Clause 8 Fraud and Corruption, which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).

Signature and seal of the Purchaser:	Signature and seal of the Supplier:
FOR AND ON BEHALF OF	FOR AND ON BEHALF OF
Name of Authorized Representative	Name of Authorized Representative

ATTACHMENT 1 TO THE CONTRACT AGREEMENT

Fraud and Corruption (Text in this Appendix shall not be modified)

1. Purpose

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, the Bank:

- a. Defines, for the purposes of this provision, the terms set forth below as follows:
 - i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
 - iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

v. "obstructive practice" is:

- (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
- (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.
- b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring mis-procurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the

procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;

- d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;¹ (ii) to be a nominated² sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
- e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect³ all accounts, records and other documents relating to the procurement process, selection and/or contract execution,, and to have them audited by auditors appointed by the Bank.

For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated subcontractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

ANNEX 1: TERMS AND CONDITIONS OF SUPPLY (RFQ-GOODS)

[To be completed, signed and submitted by the Supplier as an attachment to the signed Form of Quotation]

Project Title: Sustainable Energy Development Project (SEDeP)

Source of Funding (Loan/credit

/grant no.): **D261-MH**

Contract Name: Supply and Installation of Charging Stations and Central Management

System for EV pilot project at Majuro, Republic of Marshall Islands

Contract Ref: MH-MEC-160488-GO-RFQ (Re-invited) (RFQ-R)

1. Prices and Schedules for Supply

(a) For Goods to be imported: (The Bidder shall submit Catalogue Cuts of the Products to be supplied, in addition to an advanced submission of Product Samples to be provided in the Contract for review and approval). Items 1 thru 2 below

SI. No.	Item No	Description of Goods	Quantity	Unit Price CIP to final destination (currency & amount)	Total Price CIP (currency & amount)	Delivery Period (days) from Date of Notification of Award, to final destination
				(to be filled by B	idder)	
1	EVCS-1	Supply dual-port AC chargers with 6- 10 kW output power per port, control panel, communication functions, and cable management system	(3 charging units, 6 ports			<u>60 days</u>
2	EVCS-2	Installation works for the EV charging stations including the civil works and the electrical works at 3 (three) sites of NEO office, MEC Headquarter and Majuro Airport	1 (lot)			<u>90 days</u>
3	EVCS-3	Central management system (CMS) including back office provisioning, configuration, activation of chargers (or ports)	3, 6 3 charging units, 6ports			<u>60 days</u>
4	EVCS-4	EVCS Cloud network services	2 years			2 years and 3 months
	EVCS-5	Training/documentation	1 (lot)			<u>90 days</u>
				Total Price	l	

- 2. <u>Fixed Price:</u> The prices indicated above are firm and fixed and not subject to any adjustment during contract performance.
- 3. The Purchaser reserves the right at the time of contract finalization to increase by up to 15% the quantity of goods and services originally specified for each item without any change in unit prices as well as other terms and conditions.
- 4. <u>Delivery Schedule:</u> The delivery should be completed as per above schedule but within 90 days of the signing of the contract. The final destination for delivery of the Goods is Attention:

Jack Chong-Gum, CEO

Marshalls Energy Company (MEC) P O Box 1439, Majuro, Marshall Islands 96960

- 5. <u>Insurance:</u> The supplier is responsible for all kinds of insurance until the goods are delivered to the final destination and the Purchaser will not assume any responsibility until goods are delivered. For Goods to be imported, the Goods supplied shall be fully insured in a freely convertible currency against loss of damage incidental to manufacture or acquisition, transportation, storage and delivery. The insurance shall be in an amount equal to 110 percent of the total value of the Goods from Warehouse to Warehouse on All-risks basis, including War Risks. The Supplier shall arrange and pay for cargo insurance, naming the Purchaser as the beneficiary.
- 6. <u>Packaging and Marking Instructions</u>: The Supplier shall provide standard packing of the Goods as required to prevent their damage or deterioration during transit to and unloading at the final/port of destination.
- 7. <u>Delivery and Documents</u> (for goods to be imported). Upon shipment, the Supplier shall notify the Purchaser and the Insurance Company by mail or fax the full details of shipment, including Contract number, description of goods, quantity, the vessel, the Shipping and Forwarding Receipt from freight Company showing full details, port of loading, date of shipment, port of discharge, etc.

The Supplier shall mail the following documents to the Purchaser, with a copy to the Insurance Company:

- (i) Copies of the Supplier's invoice showing goods' description, quantity, unit price, and total amount;
- (ii) Duplicate air/ship/truck transport document, and/or duplicate FCR (Forwarders Certificate of Receipt) in 1 Original and 2 Copies marked "freight prepaid";
- (iii) Copies of the packing list identifying contents of each package;
- (iv) Manufacturer's or supplier's warranty certificate;
- (v) Certificate of origin;
- (vi) Certificate of quality.

The above documents shall be received by the Purchaser at least one week before arrival of the goods at the final destination and, if not received, the Supplier shall be responsible for any consequent expenses.

- 8. <u>Payment.</u> Payment against the Contract will be made as follows:
 - (a) Advance payment of 10% of the Contract price shall be paid within thirty (30) days of signing the contract against a simple receipt and a bank guarantee for the equivalent amount;
 - (b) 60% of the Contract price shall be paid on Shipment of goods
 - (c) 20% of the Contract value after completion of installation work at 3 charging stations and
 - (d) the remaining 10% of the Contract price shall be paid within thirty (30) days after the date of the Acceptance Certificate for the respective delivery issued by the Purchaser

9.	<u>Warranty</u> . Goods offered should be covered by a warranty as specified in Annex 2, Technical Specifications.
10.	<u>Defects</u> . All defects shall be corrected by the Supplier without any cost to the Purchaser within 30 days from the date of notice by Purchaser. Name and address of service facility of the Supplier by which the defects are to be corrected, within the warranty period:
	Name and Address (to be filled by Supplier)
11.	The Supplier confirms compliance with the Technical Specifications provided in Annex 2, subject to the accepted deviations, if any, in Annex 4.
	NAME OF SUPPLIER
	Authorized Signature
	Place:
	Date:

ANNEX 2: TECHNICAL SPECIFICATIONS

Project Title: Sustainable Energy Development Project (SEDeP)

Source of Funding (loan/credit

/grant no.): D261-MH

Contract Name: Supply and Installation of Charging Stations and Central Management System for EV

pilot project at Majuro, Republic of Marshall Islands

Contract Ref: MH-MEC-160488-GO-RFQ

Contract Name: Supply of Electrical vehicles for pilot project in Majuro, Republic of Marshall Islands

Contract Ref: MH-MEC-123334-GO-RFQ (Re-invited) (RFQ-R)

2. TECHNICAL SPECIFICATIONS

2.1 – EV charging stations:

Scope of Work:

The Works and Services to be delivered within the Scope of Work consists of, but are not limited to, the Materials and the Civil Works necessary for the EV charging stations.

The Works and the Services consist of, but are not limited to, those listed below:

- (1) Materials
 - A) EV charging stations,
 - B) Electrical system, and
 - C) Others as specified in the other parts hereof.
- (2) Civil Works
 - A) Foundations for EV charging stations,
 - B) Transformer foundations, (if needed), and
 - C) Others as specified in the other parts hereof.
- (3) Design Services for the Materials
 - A) Supply of all required Supplier's Documents.
- (4) Design Services for the Civil Works
 - A) Design services for the Civil Works listed above,
 - B) Supply of all required Supplier's Documents.
- (5) Supply, Installation and Testing Services
 - A) Supply, installation and testing of the Materials listed above.
- (6) Supply, Construction and Testing Services of the Civil Works
 - A) Supply, construction and testing of the Civil Works listed above.
- (7) Training Services for the Purchaser
 - A) Training during the installation and commissioning on the site

Specifications:

This Technical Specification describes the definition, requirements and specifications for low voltage AC electric vehicle (EV) charging stations in Majuro, RMI. It also specifies the requirements for digital communications between the AC EV charging station and electric vehicle for control of AC charging. The civil works and the electrical works associated with construction of the AC EV charging station is within the scope of the Supplier.

A. General Requirements

No.	Parameter	Description
1	EVSE type	Dual port AC EVSE with 6-10 kW/port
2	Energy transfer mode	Conductive
3	Charging mode	Slow or semi-quick EV connection to the AC power supply using a specific

			device.
4	4	Reliability and Serviceability	Charger shall be Compact Pillar charger with an option for wall mounting.
ı			for wall mounting.

B. System Structure

No.	Parameter	Description
	Regulation	IEC 61851-1:2017, IEC 61851-21-2
1		Or UL2594,UL2231-1/-2
2	Isolation	Each output isolated from each other with proper
2	isolation	insulation
3	Environmental conditions	Outdoor use in Pacific Islands, including considerations
3		for king tides
4	Power supply	EV charging station connected to AC mains
5	Charge control communication	Communicate by digital and analog signals
6	Interface Inter-operability	Interoperable with any EV (non-dedicated, can be used
		by any consumer).

C. Input Requirements

No.	Parameter	Description
1	AC supply system	Three-phase four-wire (3φ-4 wire) 208V/120V
2	Nominal Input Voltage	208V± 10% *
3	Rated Capacity	Less than 25 kVA per charger (2 sets of charger per station)
4	Rated frequency	60 Hz ± 3%

^{*} If the proposed EVSE needs different input voltage (i.e. 240V Single-phase), the Supplier shall set and quote for the transformer in the installation cost.

D. Output Requirements

No.	Parameter	Description
1	Output Power	6-10 kW/port
2	Output Current	To be set the maximum output current
2	Output Current	Current ripple should be less than 5%
3	Converter Efficiency	0.9 or higher
4	Power factor	0.9 or higher (at full load)
5	Charger Connector Types	SAE J1772, Type 1 Plug/Socket
6	Number of Outputs	2

E. Functional Requirements

No.	Parameter	Description
1	Charging cable length	Up to 7m*
2	Cable Type	Charging cable and connector permanently attached to charger *
3	Card Reader	To be decided with authentication system
4	Locking system	Lock & Keys for mainboard and lockable connector

^{*}The Supplier shall set and quote for the cable management system, considering the design of the parking lots and construction plan at the three installation sites.

F. Environmental Requirements

No.	Parameter	Description
1	Ambient Temperature Range	0° to 50°C*
2	Storage Temperature	0° to 60°C*
3	Ambient Humidity	95% RH Max*

^{*}The Supplier shall set and quote for the range, considering the climate condition in Majuro (Annual average temperature; 28°C with the maximum daily variation about 7°C, Annual average rainfalls; 3,500 mm).

G. Mechanical Requirements

No.	Parameter	Description
1	Enclosure Rating	Ingress Protection (IP) 55 or NEMA 4 *
2	Mechanical Impact	Shall not be damaged by mechanical impact as defined in
		section 11.11.2 of IEC 61851-1, Section 39 of UL2594
3	NA sebaginal Ctability	Shall not be damaged by mechanical impact as defined in
	Mechanical Stability	section 11.11.3 of IEC 61851-1, Section 41 of UL2594
4	Dimension(W*H*D)	To be decided with the construction plan, considering
		parking lots.

^{*}The Supplier shall set and quote for the canopy, considering the climate condition in Majuro (Coastal area). The Supplier shall consider the salt-tolerant enclosure.

H. User Interface and Display Requirements

No.	Parameter	Description
1	ON-OFF(start-stop) switches	Mandatory
2	Emergency Stop switch	Visible and easily accessible
3	Visual indicators	Error indication, presence on Input supply indication,
3	Visual illuicators	state of charge process indication
4	Display	LCD screen, user interface with touch screen or keypad
5	Support Language	English
6	6 Display Message	EVSE should display appropriate messages for user including not limited to; Vehicle plugged in/Vehicle plugged out User authorization status Duration since start of charge: kWh and time Idle/Charging in process: State of Charge (SOC) %
		Fault conditions Metering Information: Consumption Units
7	Authentication	As per Open charge point protocol (OCPP), but the Supplier shall propose options such as mobile application, RFID card, or Password system. Charging starts only after user authentication is

	successful.
	Successial.

I. Communication Requirements

No.	Parameter	Description		
	Communication interface	Ethernet with Bluetooth, WiFi or Cellular network		
1	between charger and central	(2G/3G/4G) *		
	management system (CMS)	(20/30/40)		
2	Communication between EVSE	Open charge point protocol (OCPP) 1.5/1.6 protocol or		
	and CMS	higher		

^{*}The Supplier shall discuss with local tele communication service provider in RMI (i.e. National Telecommunication Authority) and propose the most appropriate communication system.

J. Billing and Payment Requirements

No.	Parameter	Description
1	Billing	Grid responsive metering
2	Payment	As per OPCC, but the Supplier shall propose options as mobile application payment, Membership system supported by credit card, debit card and other type of pre/ post-paid systems.
3	Setting for Pricing	Can be set of Time-of-day rates and Time span rates (including but not limited to)

K. Safety

No.	Parameter	Description
1	I Satety Parameters	EVSE complies with relevant safety standards/
		regulations such as IEC listed, UL listed, EMC or ETL listed.

L. Energy Measurement and Management

No.	Parameter Description			
1	Measurement and recording	Measure and record the input/output power		
2	Power measurement accuracy	IEC62053-21 Class 2 level or higher		
3	Energy management	Load shed by percentage of running average or to fixed power output		

M. Installation and Commissioning:

The scope of installation work will include a detailed survey of the locations (One at MEC Office, second at NEO Office and third in the parking lot of Airport) and all work pertaining to wiring infrastructure prior to distribution board in cooperation with MEC and supply and installation of all items including civil, mechanical and electrical works on need basis depending on site conditions.

For the purposes of this request, the "Supplier" refers to the respondent to the request; and may consist of an original equipment manufacturer of electric vehicle supply equipment (EVSE), a vendor packaging EVSE equipment and software from other companies, or a local construction/installation company working collaborating or sub-contracting with charging equipment and software companies.

All electric and civil work including the related supplies (i.e cables, distribution board, transformer, circuit breakers (including but not limited to) etc.) required for Installation and commissioning shall be under the Supplier's scope. (See the attached drawings of EV-01 and EV-01)

Commissioning of Charger System at three locations ((One at MEC Office, second at NEO Office and third in the parking lot of Airport)shall be in the scope of the Supplier. Final Acceptance shall be based on successful completion of the same. Any replacement of failed/damaged items during commissioning shall be exclusively at the Supplier's cost. The Supplier is advised to stock necessary spares and ensure easy availability to facilitate trouble free commissioning. The Supplier is expected to work with project managers from

communication/system integrator/ utilities for resolving the following risks (non-exhaustive indicative list): poor equipment performance, project scope creep, unavailability of internal and external sources, Rectification of equipment faults.

O. Specific Requirements:

- a. **Input voltage:** If the proposed EVSE needs different input voltage (i.e. 240V Single-phase), the Supplier shall set and quote for the transformer in the installation cost.
- b. **Cable management:** The Supplier shall set and quote for the cable management system, considering the parking lots and construction plan at installation three sites.
- c. Pacific Islands/ Coastal environment: The Supplier shall set and quote for the canopy and other environmental parameters, considering the climate condition in Majuro (Coastal area, Annual average temperature; 28°C with the maximum daily variation about 7°C, Annual average rainfalls; 3,500 mm). Construction plan will be developed considering the trend of Climate Change (e.g. sea level rise, king tide, etc.) in this area.
- d. **Safety compliance:** The Supplier shall submit the copies of certificate or relevant test reports to show safety functions of EVSE. Safety Parameters are including but not limited to over current, under voltage, over voltage, residual current, surge protection, short circuit, earth fault at input and output, input phase reversal, emergency shutdown with alarm, over temperature, protection against electric shock.
- e. **Open charge point protocol (OCPP)/ EVSE management service:** The Supplier shall discuss with tele communication service provider in RMI (i.e. National Telecommunication Authority) and propose the most appropriate communication system.

The charging equipment shall be compliant with the protocols including OCPP. The Supplier shall provide a consolidated application or software to operate charging equipment. (The creation of application or software is not in the scope of this Tender.)

The Table below summarizes the minimum specifications for the EVSE management service:

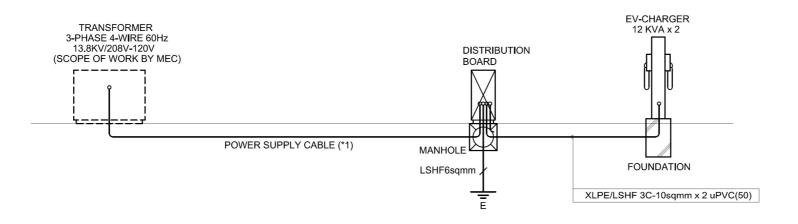
Category	Minimum Specifications
General	
Basic Software Design	 Cloud server system Control and manage necessary information/ data by using website with dashboards Facilitate use by EV drivers using a mobile application
User information management	User account information will be input through the app or website and registered in cloud server
Mobile application for the EV drivers	
Registration	Create user account by the app
Booking for Charging	 Display the charging spot on the map Reserve the charging spot by the app Automatic wait- listing and email notifications to of next driver
Changing Operation	 Remotely start a charging session after user authentication by the app Remotely stop a charging session or disable a charger
Notification	E-mail and text notifications to drivers when charging complete
Payment	 Support payment through the app with banking information or credit card Record the payment history
Service for station owner	
Monitoring	 View charging station status by the station owner's dashboard Remotely start and stop a charging session or disable a charger Automatic email notifications to maintenance/repair including communication system failure
Price setting	 Set the following rates and update anytime with web portal Charge different usage rates for different users Charge Time-of-day rates (price per kWh) (e.g peak time/ off-peak

	time rates, weekday/weekend rates)
	Charge Time span rates (e.g. costs increase after a certain time period
	to increase station turnover)
	View and download usage reports including but not limited to;
	Status of the number of EV drivers,
Reporting/ data analysis	Time and charged energy (kWh) of EVs,
	Frequency of usage of each charging spots
	Revenue by rates, time
Security of cloud server	
	Provide necessary countermeasures of server security including;
	Physical measures for information security
	> Data backup
	Measures to protect the hardware (e.g. server, data storage, network
Security items	facilities, etc)
	Vulnerability assessment and countermeasures
	Prevention of unauthorized access
	Management of the access log
	Encryption of the communication system

- f. **Training/documentation:** The Supplier shall provide the minimum training for operation and maintenance of EVSE with User Manuals, FAQ, OEM Functional Manuals and Installation Guides, and Troubleshooting Guides. (Both hard copy and soft copy).
- g. Warranties: The charging equipment should include a minimum of 3 years warranties for factory parts

2-3 Electrical System

Electrical System consists of, but not limited to, the facilities specified in the attached drawings of EV-01 and EV-02 on the following pages.

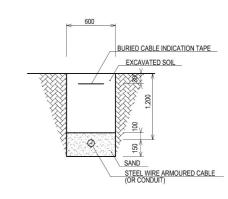


SCHEMATIC DIAGRAM

QUANTITIES LIST OF MATERIAL / EQUIPMENT

ITEM	SPECIFICATION	UNIT	QUANTITY			NOTE
HEW	SPECIFICATION		MEC	NEO	AIRPORT	NOTE
WIRE	LSHF 6sqmm	m	5.0	5.0	5.0	
CABLE	XLPE/LSHF 3C-10sqmm	m	20.0	20.0	20.0	
CABLE	SWA/XLPE/LSHF 4C - 35sqmm	m	_	40.0	50.0	POWER SUPPLY CABLE (*1)
CABLE	SWA/XLPE/LSHF 4C - 70sqmm	m	75.0	_	_	POWER SUPPLY CABLE (*1)
CONDUIT	uPVC(50)	m	10.0	10.0	10.0	
DISTRIBUTION BOARD	TYPE-A or TYPE-B	SET	1.0	1.0	1.0	
EV CHARGER		SET	1.0	1.0	1.0	
MANHOLE	0.9m(W)x0.9m(D)x1,35m(H) W/COVER	SET	1.0	1.0	1.0	
GROUNDING ELECTRODE		SET	1.0	1.0	1.0	LESS THAN 5 OHM
CONCRETE FOUNDATION	0.6m(W)x0.60m(D)x0.75m(H)	SET	1.0	1.0	1.0	FOR EV CHARGER
BURIED CABLE INDICATION TAPE		m	85.0	50.0	60.0	
EXCAVATION	0.6m(W)x1.35m(D)	m3	68.85	40.5	48.6	
BACK FILL	SAND	m3	12.75	7.5	9.0	
BACK FILL	EXCAVATED SOIL	m3	56.1	33.0	39.6	

*SWA: STEEL WIRE ARMOURED CABLE



DEPTH OF UNDERGROUND CONDUIT

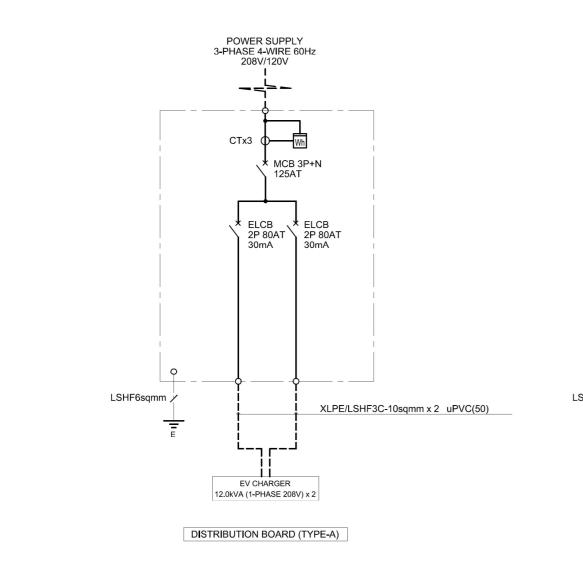
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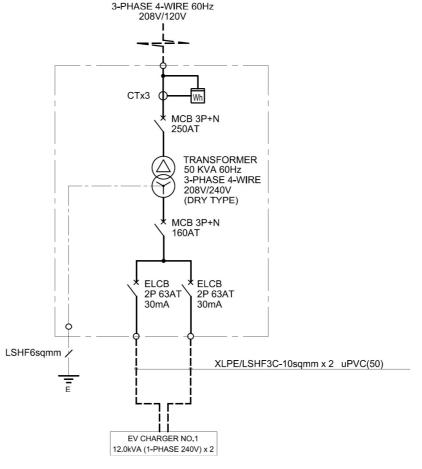
Electric Vehicle (EV) Pilot Preparation in Majuro Republic of the Marshall Islands (RMI)

EV CHARGER SYSTEM SCHEMATIC DIAGRAM & MATRIAL/EQUIPMENT LIST

EV-01

ORIENTAL CONSULTANTS GLOBAL CO.,LTD.





- ABBREVIATION -

ABBR.	MEAN
Wh	WATT-HOUR METER
CT	CURRENT TRANSFORMER
MCB	MINIATURE CIRCUIT BREAKER
ELCB	EARTH LEAKAGE CIRCUIT BREAKER
E	GROUNDING

-NOTEDISTRIBUTION BOARD SPECIFICATION

1. MATERIAL OF ENCLOSURE:
HOT DIP GALVANIZED STEEL STRUCTURE OR
STAINLESS STEEL STRUCTURE WITH THICKNESS
1.6mm OR MORE

2. INGRESS PROTECTION CODE: IP55 OR NEMA4
3. TYPE: SELF-STANDING TYPE

DISTRIBUTION BOARD (TYPE-B)

POWER SUPPLY

ANNEX 3: FORM OF QUOTATION (RFQ-GOODS)

[To be completed, sig	ned and submitted on Letterhead of Supplier]
	(Date)
To: Jack Chong-G	
Marshalls En P O Box 1439 Majuro,	ergy Company
Marshall Isla	nds MH 96960
Project Title: Source of Funding (loan/credit	Sustainable Energy Development Project (SEDeP)
/grant no.): Contract Name:	D261-MH Supply and Installation of Charging Stations and Central Management System for EV pilot project at Majuro, Republic of Marshall Islands
Contract Ref:	MH-MEC-160488-GO-RFQ (Re-invited) (RFQ-R)
for Quotation (RFQ) numbers) (for the Contract Price of(amount in words and) (name of currency). We propose to complete the delivery of Goods tract within a period ofcalendar days from the Date of
	your written acceptance will constitute a binding Contract between us. We are not bound to accept the lowest or any Quotation you receive.
We hereby confirm th	nat this Quotation complies with the Validity of the Quotation required by the RFQ.
Authorized Signature Name and Title of Sig	: natory
Name of Supplier: Address:	
Phone Number _	
Fax Number, if anye-mail address:	

ANNEX 4: STATEMENT OF TECHNICAL COMPLIANCE

[To be completed, signed and submitted by the Supplier as an attachment to the signed Form of Quotation]

Project Title: Source of Funding (loan/credit	Sustainable Energy Development Project (SEDeP)
/grant no.):	D261-MH
Contract Name:	Supply and Installation of Charging Stations and Central Management System for EV pilot project at Majuro, Republic of Marshall Islands
Contract Ref:	MH-MEC-160488-GO-RFQ (Re-invited) (RFQ-R)
Date:	
P O Box 1439 Majuro,	ergy Company
	confirm that we shall supply the Goods listed in Annex 1 according to the cations described in Annex 2 except for those deviations listed below:
List all deviati	ions of the proposed items of Goods:
or nil	
	Goods proposed in our quotation substantially satisfy the requirements specified The main technical responses are as listed below:
List all the ma	nin technical characteristics of the proposed items of Goods:
Authorized Signature: Name and Title of Sign	
Name of Supplier:	· ————————————————————————————————————
Address:	
Phone Number	
Fax Number, if any:	
Email address:	