



CLARIFICATION 1

1 ވަނަ ބަޔާން ޖަވާބު

ނަންބަރު No:	TES/2023/G-011	
ޕްރޮޖެކްޓް Project:	Design, supply, installation, testing and commissioning of Power Plant Control and Monitoring Systems (PCMS) including two (2) years of operation and maintenance support and training	
ޕްރިންޓް Issued Date	17 th September 2023	
ސަފުހާ ގެ ޕޭޖް No. of Pages: -06	ބޮޕް Boq: -00	ޑްރޯޕިންގް Drawings: -00

Please include this clarification when submitting the bid

މި ބަޔާން ޖަވާބު ޕްރޮޖެކްޓް ޕްރޮޖެކްޓް ޕްރޮޖެކްޓް ޕްރޮޖެކްޓް ޕްރޮޖެކްޓް ޕްރޮޖެކްޓް

- Please find attached, answers to the queries received.

ނަންބަރު
Name: Fathimath Rishfa Ahmed

ސަފުހާ
Signature:



CLARIFICATION 1

#	Document Name	Document Reference (Section no/page no etc)	Query	Response
1		Section 6: Schedule of Supply/4.Technical Specifications	Pls provide the existing electrical system architecture diagram, brand and communication mode and specification of main equipment (inverter, diesel generator, etc.), operation mode of system is parallel or off-grid for each island minigrid	Please refer to section 6 of the bid document.
2		ITB 24.1 The deadline for bid submission	In order to enable us to prepare the bid with more competitive prices with high technical proposals, and have enough time to issue the bid guarantees. We really don't want to miss this project. kindly please extend the bid close date for one month.	Not possible
3			We submitted clarifications to your e-mail indicated in the BDS: mohamed.mafaaz@environment.gov.mv as shown below. but our e-mails were returned with comments that the email address mohamed.mafaaz@environment.gov.mv is not correct. So we have to send clarifications to your e-mail address: mohamed.mafaaz@finance.gov.mv. Thanks for your understanding	This is a mistake. An Addendum will be issued to correct this. Bidders are requested to submit their queries to mohamed.mafaaz@finance.gov.mv and tender@finance.gov.mv
4			would like to formally request the 'National Tender Office, Ministry of Finance,' for a bid extension until 25th October 2023.	Not possible

MAL



5	Section 6: Schedule of Supply 2. Delivery and Completion Schedule	Name of Islands/SS	Please provide the Single line diagram of typical Substations.	Not required for the bidding purpose
6	Section 6: Schedule of Supply 2. Delivery and Completion Schedule	Name of Islands/SS	Provide the Substation layout identify the PMCS panel location	Not required for the bidding purpose
7	Section 6: Schedule of Supply 3. Type of System Configurations	1) Configuration and operation principle of Type A Islands	Provide the single line diagram with PV connections with Switchgear Each PV will connect with Switchgear or one feeder connect with all the PV arrays?	Not required for the bidding purpose
8	Section 6: Schedule of Supply 3. Type of System Configurations	1) Configuration and operation principle of Type A Islands	Provide PV controller details with capabilities, protocols, and infrastructure medium. Communication with each PV array control or communication with one PV controller	Not required for the bidding purpose
9	Section 6: Schedule of Supply 3. Type of System Configurations	1) Configuration and operation principle of Type A Islands	Does existing generators has unit synchronization functionality?	Yes
10	Section 6: Schedule of Supply 3. Type of System Configurations	1) Configuration and operation principle of Type A Islands	Provide existing generators details and load details Does this DG generators can accommodate all the loads in case of PV out of production? If no we need considered lodshedding for the frequency stability	Not required for the bidding purpose
11	Section 6: Schedule of Supply 3. Type of System Configurations	1) Configuration and operation principle of Type A Islands	"An additional short-term power battery is included in the system (30 minutes to 2 hours energy reserve). " Please clarify this additional battery is out of BESS and only emergency support? PMCS need control this battery?	Not a part of BESS
12	Section 6: Schedule of Supply 3. Type of System Configurations	1) Configuration and operation principle of Type A Islands	Provide the battery details along with capacity and capabilities What is the energy ramp rate? Communication protocols?	Please refer to the section 6 of the bidding document.



13	Section 6: Schedule of Supply 3. Type of System Configurations	1) Configuration and operation principle of Type A Islands	Does the BESS controller has Synchronization features? If no who has to provide Synchronization relays?	Yes. BESS controller have synchronization function.
14	Section 6: Schedule of Supply 3. Type of System Configurations	1) Configuration and operation principle of Type A Islands	To tune the plant controls PMCS required Bus voltage and frequency signals from the field How to get the signals? Existing relay /meter can provide this detail through 61850 protocols? To PMCS system please confirm	It is the responsibility of the contractor to provide a solution.
15	Section 6: Schedule of Supply 4. Technical Specifications	A) General requirements	What is the make of existing central SCADA located in Male'? What is the communication medium and protocol? Please confirm configuring existing Routers will be out of PMCS scope	Existing central SCADA located in Male' is Dhybrid. Configuring existing Routers will be out of PMCS scope
16	Section 6: Schedule of Supply 4. Technical Specifications	A) General requirements 1) General approach	Please clarify the following statement means to provides centralized system for data logging?" <i>The Bidder shall provide a common PCMS with a central operator station and data handling facilities</i> "	Each island must have a PCMS operator interface and data handling facility
17	Section 6: Schedule of Supply 4. Technical Specifications	A) General requirements 2) Scope of work	Please clarify the following statement Communication infrastructure will be done by others which mean outside PMCS?" <i>Communications to remote solar PV plants will be via fiber optic cables will be provided by others</i> "	Fiber optic cables already laid from the Solar PV locations to PCMS site.
18	Section 6: Schedule of Supply 4. Technical Specifications	A) General requirements 2) Scope of work	Please clarify the following statement What are existing system? Please provide details of those devices "Ensuring compatibility with existing equipment and other plant supplied by the Bidder – especially ensuring that the existing controllers, meters and subsystems are also compatible with the procured equipment."	It is the responsibility of the contractor to study the system before detailed design and procurement.



19	Section 6: Schedule of Supply 4. Technical Specifications	A) General requirements 2) Scope of work	Following details shall be provided DG controls will accept soft? Or Hardwired What are all the protocols in the DG, PV & BEES Please confirm load details shall be measured from out going feeders using existing meters	Soft and hard wired both required. Please refer to the section 6 of the bidding document for more details on Protocols. Contractor is required to supply the meters.
20	Section 6: Schedule of Supply 4. Technical Specifications	A) General requirements 4) System stability	Please confirm shall we include load shedding system in ordered to do power balance and prevent blackout	Not required
21	Section 6: Schedule of Supply 4. Technical Specifications	A) General requirements 6) Electrical Interface Units	Please clarify what is the purpose of EIU? Is it hardwired Io Module?	Please refer to section 6 of the bid document.
22	Section 6: Schedule of Supply 4. Technical Specifications	A) General requirements E) Alarm and Event Management 2) Report Generation	Existing system or Any sensor is installed to provide Weather report?	Yes
23	Section 6: Schedule of Supply 4. Technical Specifications	A) General requirements F) Data Communication Network	Status and Control will be done through the TCPIP Modbus protocol please confirm? No hardwired signals and controls are not required	Its up to the contractor to decide.
24			what is the status of existing equipment in 20 islands ? Do the diesel generators, photovoltaic and energy storage controllers have communication control functions and what are the existing communication methods?	Existing system have communication control systems. Contractor is required to establish a system in each island.
25			Electric primary system diagram of existing equipment such as diesel generators, photovoltaics, energy storage in 20 islands and the electrical	Not required for the bidding purpose. A typical diagram is included in the bidding document.



			diagrams of existing distribution cabinets?	
26			What are the equipment parameters and communication protocols for diesel generators, photovoltaic inverters, and energy storage systems?	Not required for the bidding purpose
27			what is the communication mode and control mode of the diesel generators if there are multiple diesel generators running in parallel?	Load sharing mode.
28			Meteorological information of 20 islands (average temperature, average humidity, irradiance, duration of sunshine)?	Not required for the bidding purpose
29			Does the equipment cost include training related expenses?	Yes
30			What is the Communication protocol of the PV inverters/controllers?	RS 485
31			Confirm communication media for PV systems is optical fiber or not?	optical fiber

Am

