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ސަރުކާރު No:	TES/2021/G-004		
ދިވެހިސަރުކާރުގެ ގެޒެޓް Project:	Procurement of Design, Supply and Installation of Grid-tied Solar PV-Diesel Hybrid Power Generation Plants in 26 inhabited islands of Raa and Baa Atolls in Maldives		
ދިވެހިސަރުކާރުގެ ގެޒެޓް Issued Date	17 th May 2021		
ދިވެހިސަރުކާރުގެ ގެޒެޓް No. of Pages: -50	ދިވެހިސަރުކާރުގެ ގެޒެޓް Boq: -00	ދިވެހިސަރުކާރުގެ ގެޒެޓް Drawings: -02	

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- Pre-bid Meeting Report.
- Answers to the queries received.
- Kmz file for Raa Atoll.
- Kmz file for Baa Atoll.
- Ground Mounted Structure P1.
- Ground Mounted Structure P2.



Name: Fathimath Rishfa Ahmed

Signature:

CLARIFICATION 01

Item No	Part / Section	Clause / Paragraph	Page No	Island	Bidder Request for Clarification	Employer's Comment
1	Section 3-2.3.3- Financial Resources-(b); Section 4 Bidding Forms-Form FIN-5:	(b) the requirements for the Subject Contract of \$ 4,000,000.00;	6		In section 3-2.3.3, the requirements for the subject contract is \$ 4,000,000.00, but in the section 4 bidding forms, For Single Entities: the requirement is \$ 2,250,000.00 and for JV Partner B is \$ 1,350,000.00, Partner A is \$ 300,000.00, all partners combined is 2,250,000.00. The requirements in this two sections are not the same, pls clarify which requirement should we follow.	Requirements in Section 3 will apply. Bidding forms will be revised.
2	Section 3-2.4.1 Contracts of Similar Size and Nature; Section 4 -Form EXP-1;	Participation in at least two contracts that have been successfully or substantially completed within the last 5 years and that are similar to the proposed contract, where the value of the Bidder's participation exceeds \$ 12,800,000.00 per contract.	7		In section3-2.4.1, the contract value of the Bidder's participation should exceed \$ 12,800,000.00 per contract, while in section 4 Form EXP-1, the value of the Bidder's participation should exceed \$ 5,000,000.00. pls clarify which requirement should we follow.	Requirements in Section 3 will apply. Bidding forms will be revised.

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3	Section 6-3.2.4.3 Ground mounted installation		196		As there's no specific requirements on the free field mounting structure, there are several structure types on the market, the cost is related with the types and height of the structure, so here we request to clarify the free field mounting structure drawing for our reference, and the exact height of the structure .	Requirements in Section 3 will apply. Bidding forms will be revised.
4	Section 4 Form Data Sheet PV Module 2.16	If crystalline Modules are used: Number of cells per module: 60	40		The number of cells per module is required to be 60, can we choose crystalline modules with different number of cells like 72 or 144?	Yes, minimum 60
5	Section 4 Form Data Sheet Battery inverter 2.10 & Section 6 3.3.2 Battery Inverters/Chargers	The overload capability of the inverter must be at least 150% of its nominal power for at least 30 seconds. Overload capability: $\geq 120\%$ for 10 seconds	47 & 211		We noticed that the requirements description of overload capability of battery inverter are different in Section 4 and Section 6. Can you clear and definite if the overload capability of battery inverter is 150% for 30 seconds or 120% for 10 seconds.	120% for 10 seconds
6	Section 6				We noticed that the PV installation capacity requirements of rooftop is set too high to achieve. We have to consider the number of PV panels of one string on each roof-top of different orientation. The roof usage of the tender is set too high that the actual design is difficult to meet this requirements.	Successful Bidder shall submit detail design after awarding. The issue (if required) can be addressed at that stage

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7	Section 6 and G409-RAA and G409-BAA				We notice the capacity information for each island are quite different in tender files. SLD gives one value, and from Section showing the other way. For example, on F-13 the "Area in front of Mosque" is a Roof and becomes a Ground in SLD drawing. Therefore, please clarify which information we should consider as reference?	Area in front of Mosque is a free field. Not a roof.
8	Section 6				Please specify the location and dimension of the ground mounting area in Section 6 which are lost from F02 to F15	Area in sqm given and cable lengths provided. This should be enough for bidding purposes
9	Bid Security Letter				Due to the recent increasing COVID-19 cases in Maldives, we are worried that the mail transportation like DHL would get too much delays, hence, we ask for permission that we attach the copy Bid Security Letter and shipping waybill into our Original bid document in case the original file can't arrive. Also pls inform the shipping address of the Original Bid security Letter.	Three weeks extension will be provided
10	Section 6	point 3.2.5.7 indicates that "PV inverter shall have a maximum nominal AC rating of 30 kVA"			Due to the market evolution it is possible to provide up to 100 kW string inverters with the same characteristics as the smaller ones. This power output allows installing less equipment increasing the reliability of the installation due to there is less equipment that could fail. Could you please indicate if	Not allowed

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					inverters with a power output of 150 kVA will be considered?	
11					Could you please provide us with typical load profile hourly values?	No need for bidding purposes. They will be provided during detail engineering stage
12					Could you please provide us with some drawings with the locations of the proposed PV locations?	No need for bidding purposes. They will be provided during detail engineering stage
13					Could you please provide us with some drawings of the locations of the existing distribution boxes? If we must install a new DB or replace the existing one we could estimate the cable length with higher accuracy.	No need for bidding purposes. The cable length is already defined for all cases
14					Could you please indicate the limits of the free field location proposed for ground-mounted installations? In section 6 it is only indicated the available surface and the expected capacity but not its dimensions, distance to the POC and distance to the PH.	No need for bidding purposes. They will be provided during detail engineering stage
15					Could you please provide us with information about DHI (Diffuse Horizontal Irradiation)?	Available climate conditions are provided in Subsection 2.3
16					Could you please indicate to us if there is any ground location that must be fenced in case of being used for PV installation?	No need to fence PV installation
17	Section 6	point 3.2.4.3 Ground mounted installation:			As there are no specific requirements on the free field mounting structure, there are several structure types on the market, the cost is related to the types and height of the structure, so here we request to clarify the free	Minimum height 3m, See attachment for further information

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					field mounting structure drawing for our reference, and the exact height of the structure." ^o	
18					The maximum DC/AC ratio of the inverter for the design of the PV system shall be 1.2 or less. Additionally, the Bidder must ensure that there is no clipping of the PV power due to missing inverter capacity. To have zero clipping losses, DC/AC ratio has to be 1	Note that Proposed PV capacity and PV inverter are given as minimum values. No need to meet DC/AC = 1.
19					There are locations with different buildings and several rooftops. Could you please indicate to us if there is any priority to select some locations facing each other?	It can only be used the identified locations. There is no priority
20					Could you please confirm if non-armored cables will be considered for LV distribution cables? Armoured cabled are significantly more expensive than non-armored, besides distribution cables could be installed under conduit to protect them.	Confirmed
21					Could you please confirm if all the distribution grid sections and distribution boxes that are shown in the drawings and the requirements are in the scope of the bid or only those related to the new PV installations must be carried out?	Only those related to new PV installations. The scope is mentioned in the LVDB/LVDB Modifications SLDs
22					Could you please provide us with information about the location of the step-up transformer substation in	No need for bidding purposes

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					Alifushi, Innamaadhoo, Inguraidhoo and Kinolhas?	
23					Could you please indicate to us the main characteristics of the package substation indicated in section 6?	No need for bidding purposes
24					Could you please indicate to us the main characteristics of step-up transformers and step-down transformers?	Step up voltage :0.425/11kV Insulation level : 12kV Vector group : YnD1 Step down voltage : 11/0.415kV Insulation level : 12kV Vector group : Dyn11
25					Could you please indicate to us the characteristics of the Medium Voltage cables?	No need for bidding purposes
26					Could you please provide us with the .kmz file with the location of all the proposed buildings and ground mount zones?	See attachment
27					In the Dharavandhoo SLD drawing appears 3 different lines that connect the Harbour PV zone with the 630 kVA substation package. However, in section 6, table 2-129 only appears 2 lines. Which quantity must be considered?	3 lines as per the single line is correct
28					Could you please provide us with drawings of the different cable routes that have been considered to evaluate the size and the length of the trenches and cables?	No need for bidding purposes

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29					There are discrepancies in sections and meters of wiring in Maalhos feeder 1.	Follow the LVDB/LVDB Modifications SLDs
30					Could you please provide us with the name and the location of the proposed buildings and zones in F14 Fulhadhoo? They do not appear in table 2-157 in section 6.	No need for bidding purposes
31					E04 y E16 coordinates indicate two islands that no correspond with the image attached in section 6 Employer requirements. Could you please clarify?	The name anc code are correct but not the GPS coordinates
32					Could you please provide information about Baa Atoll proposed rooftops? Some information like dimensions, height, tilt, orientation, material are provided to Raa Atoll locations but not for Baa Atoll.	No need for bidding purposes. In case there is not enough information for PVSyst simulation, it is not mandatory to be submitted at this stage
33					Alifushi: Could you please indicate to us the dimensions, limits and location of Quran Class and Preschool GM?	No need for bidding purposes
34					Vaadhoo: Could you please indicate to us the dimensions, limits and location of Zone 1 and Zone 2?	No need for bidding purposes
35					Rasgetheemu: Could you please indicate to us the dimensions, limits and location of Near Council Office GM?	No need for bidding purposes
36					Angolhitheemu: Could you please indicate to us the dimensions, limits and location of Harbour GM and Powerhouse GM?	No need for bidding purposes

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37					Maakurathu: Could you please indicate to us the dimensions, height, tilt, orientation, material and location of the following rooftops: Social Centre, RO Plant, Sewerage Plant and Preschool?	No need for bidding purposes
38					Rasmaadhoo: Could you please indicate to us the dimensions, height, tilt, orientation, material and location of the following rooftops: Club, Preschool and School Playground	No need for bidding purposes
39					Rasmaadhoo: Could you please indicate to us the dimensions, limits and location of Ferry Terminal (GM) and Club (GM)?	No need for bidding purposes
40					Innamaadhoo: Could you please indicate to us the dimensions, limits and location of GM 1, GM 2, GM 3 and GM 4?	No need for bidding purposes
41					Maduvvari: Could you please indicate to us the dimensions, height, tilt, orientation, material and location of the following rooftops: Iruveli maalan and Police Station?	No need for bidding purposes
42					Maduvvari: Could you please indicate to us the dimensions, limits and location of Harbour South GM and Waste area GM?	No need for bidding purposes
43					Inguraidhoo: Could you please indicate to us the dimensions, height, tilt, orientation, material and location of the Harbour side?	No need for bidding purposes
44					Inguraidhoo: Could you please indicate to us the dimensions, limits	No need for bidding purposes

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					and location of P/H ground and School?	
45					Fainu: Could you please indicate to us the dimensions, height, tilt, orientation, material and location of the Road in front of the School?	No need for bidding purposes
46					Fainu: Could you please indicate to us the dimensions, limits and location of the School ground?	No need for bidding purposes
47					Meedhoo: Could you please indicate to us the dimensions, height, tilt, orientation, material and location of the Women Centre and preschool?	No need for bidding purposes
48					Meedhoo: Could you please indicate to us the dimensions, limits and location of Harbour South GM, Harbour North GM, Near Ekuveri Club GM, Near Jamiya Salah GM, Near Maskoshi GM, Cemetery South GM, Cemetery North GM and Cemetery East GM?	No need for bidding purposes
49					Kinolhas: Could you please indicate to us the dimensions, height, tilt, orientation, material and location of Preschool, Gym, Badharu Parking, Kudakudhinge Park, School Magu, Kunikoshi, Kunikoshi, Ganduvaru beach, FENAKA New P/H?	No need for bidding purposes
50					Hulhudhuffaar: Could you please indicate to us the dimensions, height, tilt, orientation, material and location or dimensions, limits and location if they are ground mount locations of Mathaaran Maalam?	No need for bidding purposes

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51					Kudarikilu: Could you please indicate to us the dimensions, limits and location of GM Harbour North, GM Harbour East, GM Council office West and School Free Land?	No need for bidding purposes
52					Kudarikilu: Could you please indicate to us the dimensions, height, tilt, orientation, material and location of School West/North Side Road?	No need for bidding purposes
53					Kamadhoo: Could you please indicate to us the dimensions, height, tilt, orientation, material and location of Roots preschool and Aharemenge Hiya?	No need for bidding purposes
54					Kendhoo: Could you please indicate to us the dimensions, limits and location of Ground Mount 1 and Ground Mount 2?	No need for bidding purposes
55					Kihaadhoo: Could you please indicate to us the dimensions, limits and location of the Ground Mount area?	No need for bidding purposes
56					Dhonfanu: Could you please indicate to us the dimensions, limits and location of Harbour East GM 1 (Godown), Harbour East GM 2 (Stage), Old Council GM, East of Council Office GM South of Council Office GM?	No need for bidding purposes
57					Dharavandhoo: Could you please indicate to us the dimensions, limits and location of Harbour Area GM?	No need for bidding purposes
58					Maalhos: Could you please indicate to us the dimensions, height, tilt, orientation, material and location of	No need for bidding purposes

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					Asfaru hall, Mehumaani Ufa and Zuvaanun ge Hiya?	
59					Maalhoo: Could you please indicate to us the dimensions, limits and location of Wate Management GM?	No need for bidding purposes
60					Thulhaadhoo: Could you please indicate to us the dimensions, limits and location of Council Office GM, Site Office GM and Water Tank Area GM?	No need for bidding purposes
61					Hithaadhoo: Could you please indicate to us the dimensions, limits and location of Council Idhara GM, Park GM and GM area?	No need for bidding purposes
62					Hithaadhoo: Could you please indicate to us the dimensions, height, tilt, orientation, material and location of the Area in front of the Mosque?	No need for bidding purposes
63					Fulhadhoo: Could you please indicate to us the dimensions, height, tilt, orientation, material and location or dimensions, limits and location if they are ground mount locations of Fulhadhoo?	No need for bidding purposes
64					Fehendhoo: Could you please indicate to us the dimensions, limits and location of Council office GM, Powerhouse Roof & GM and Old Mosque (Ground)?	No need for bidding purposes
65					Fehendhoo: Could you please indicate to us the dimensions, height, tilt, orientation, material and location of the Harbour Area?	No need for bidding purposes

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66	General	General	General		Pre-meeting not being invited to participated in and kindly share the pre-meeting minutes for reference.	It will be circulated to all registered Bidders
67	Plant 1S2E Section 6	Section 6	2.21.4.2		Section 6 makes reference to various drawings relevant to network upgrade works and schematic of distribution boards. These drawings are missing	The drawings are uploaded in the link : https://www.finance.gov.mv/public/attachments/eLcw3tuPyp4Bd8fsI3tCcprNGGnqHBxFODm2tWl.zip
68	Plant 1S2E Section 6	Section 6	2.6, 2.7		Section 6 provides summary of the systems in 25 islands. For some islands (such as E04, E10, E11, E14, F07, F14), the subsequent details of the sites (and the gross PV capacity in each island) is not in agreement with the summary provided in 2.6 and 2.7. Shall we assume the detailed site break down is to be followed?	Please, follow capacities in 2.6 and 2.7
69	Plant 1S2E Section 6	Section 3	3.2.4.3		What is the required clearance height of the structure from the ground?	3 meters, see attachment for further details
70	Plant 1S2E Section 6	Section 3	3.2.4.3		In the event that the allotted land is not enough, would it be ok to lessen the 2.8m required minimum distance between two rows?	Enough land will be allotted for each case
71	Plant 1S2E Section 6	Section 3	3.2.4.3		It is indicated that roofing sheets are required for the ground mounting structures as well, what is the required distance between the top of the roof and the bottom of the PV module?	Refer to Section 6 Chapter 3.2.4.2 (100 mm)
72	Plant 1S2E Section 6	Section 3	3.2.4.3		Also, aside from it being a typical coastal area roofing sheet requirement indicated, are there other requirements (such as cross-	Trapezoidal Lysaigh roofing sheets

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					section geometry, coating, etc.) for the roofing sheets?	
73	Plant 1S2E Section 6	Section 2	2.8 to 2.32		Kindly provide the dimensions of the available area for ground mounted as well aside from the total sq.m.	This information is not necessary for bidding stage
74	Plant 1S2E Section 6	Section 2	2.22 to 2.32		Starting from F02 to the rest of the islands below. The dimensions and details of the roof and GM area were not specified. Kindly provide an overview table for these islands such as that indicated in 2.8.3 and others.	Area in sqm is given and cable lengths provided. This should be enough for bidding purposes
75					Is it acceptable for a bidder to submit bids only for select storage system type (Say Type B or C) and not for the others?	No.
76					Would it be acceptable to propose a Type C system for locations currently selected for Type B ? In our experience, Type B systems can be more reliable and provide greater resilience under natural disasters and can resume power even when diesel supply is impacted. If this is acceptable, what would be your suggestions for criteria to be met for doing this substitution - such as cost etc	No

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77					We do provide Lithium battery solutions with a 100% depth of discharge cycle life of over 6000 cycles with C/4 discharge rates. Since the systems sizing is already determined as per the bid and C/1 inversion capacity is stated as a requirement, what is the proportion of time the battery will be subject to charge and discharge rates greater than C/4? what is the proportion of time the battery will be subject to charge and discharge rates greater than C/4?	BESS should provide C-rate = 1 or higher (for the given capacity)
78					Could you kindly provide some additional clarity on the expected Timelines for technical/financial evaluation, award of contract, start of work, completion deadlines etc	This information is not available
79					Since the Bid submission date is quite close, it may be challenging for each bidder to make a site visit due to the number of sites and also given the travel restrictions from various countries. Are there any readily available information that can assist in preparing for the bid - such as: Availability of Soil survey for solar installation, Site survey or other information about potential system site and housing from feasibility studies undertaken already Availability of load data in digital form for system simulation	No further information is available

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80					Is there any possibility of the Extension of bid submission date of May 24?	Three weeks extension will be provided
81	4	Form Data Sheet PV Module	40/79		2.16 If crystalline Modules are used: Number of cells per module No. 60. Please confirm whether the number of cells per module should be limited to 60.	Minimum 60 cells. More cells are allowed.
82	6	3.2.2.1	190/305		The nominal cumulative DC power (STC conditions) of the PV systems shall amount at least to 2.49 + 0.985 MWp (+2.5%/-0%), distributed on 12 + 4 islands. Is a mistake? Please confirm that.	This is an erratum. Please refer to section 2.6 for correct capacities
83	6	3.4.5	215/305		Existing Diesel Generator controllers shall be removed and generators shall be connected to the generator synchronizing panel boards supplied under this project in order to fit the requirements of the hybrid system. Please confirm whether the replacement of DG controllers and connection to the synchronizing panel boards are in the scope of Bidder.	Replacement of DG controllers and connection of generators to the new synchronizing panel are applicable for islands where the synchronizing panel (main LVDB) will be replaced. Refer to subsection 'Grid Infrastructure upgrade' in Section 6 chapter 2 under individual island profiles to identify which islands will have LVDB replaced. This information can also be known from Grid Upgrade drawings provided
84	6	3.7	256/305		The PCMS will be fully compatible with existing D-hybrid central SCADA located in Male. Please kindly provide the details of existing SCADA located in Male for Bidder to supply compatible design.	2.3 D-hybrid central SCADA located in Male PCMS shall be connected to the remote server in Male via internet. Key collected data at each island should be fed into the central SCADA. This data will usually include Measurement variables

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						<p>taken from the project sites such as:</p> <ul style="list-style-type: none"> -Island data (Island area, population, no. of consumers [...]) -Nominal capacities -Operational data and readings -Energy -PV -Diesel generator -Fuel meters -Power quality meters -Efficiency data (CO2 and fuel savings, plant and fuel efficiency[...]) <p>Measurement variables taken from the project sites</p> <ul style="list-style-type: none"> -Island data (Island area, population, no. of consumers [...]) -Nominal capacities -Operational data and readings -Energy -PV -Diesel generator -Fuel meters -Power quality meters -Efficiency data (CO2 and fuel savings, plant and fuel efficiency[...]) <p>Further information will be provided at detailed engineering stage</p>

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85	6	3.7	256/305		The PCMS shall provide interactive control and monitoring for specific parts of the PV power plants... Will the monitoring signal be connected to the Owner's existing monitoring platform or a new monitoring platform provided by Bidder?	New platform provided by bidder
86	6	1.2	13/305		However, the proposed Energy Management System (EMS) must be capable of integrating and synchronising the existing Diesel generators. To control the existing DGs, DGs should communicate with EMS system. Is it RS485 communication net or Ethernet? LAN network Whether DGs have the function to accept the scheduling of the host computer? What communication mode is? And please provide more details of each DG, such as operation voltage range, frequency range and so on	A: DG controllers used for all of the islands are Deepsea (either DSE8610 MK II or DSE8810) which are able to communicate through both ethernet and RS485. Bidder shall choose the method which ensures highest reliability. Section 3.7.5 specifies that all communications between hybrid plant controller and energy producers shall be via Modbus TCP. B.- Yes, DG controllers used can accept scheduling from external controller. (see above answer)
87	6	2.4.1	18/305		Type A Hybrid system: PV-Diesel. BESS is recommended to be adopted in Type A hybrid system for the following reasons: 1. Since the quality of DG electricity is poor and both voltage and frequency fluctuate greatly, in the process of grid connection, the under/over-voltage protection and over/under-frequency are prone to occur, resulting in grid disconnection;	A: Only one Type A island is included in Tender and the demand of the island is much larger than capacity of PV which will be installed. Hence, the scenarios mentioned by the bidder are unlikely to occur. However, as tender specifies, all islands must be readily able to downgrade to Type A should it be necessary.

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					2. If the power generation of PV system exceeds the actual load demand, the current will flow back to DG. Since it takes time for EMS to react and act, the counter current may lead to DG lose control and overspeed without taking BESS as a buffer.	
88	Plant 1S2E Section 6	2.3	16	-	Request to share the Wind speed, max, min and avg ambient temperature, humidity.	Refer to Section 6. Subsection 2.3 Climatic conditions
89	Plant 1S2E Section 6	2.3	16	-	Instead of NREL data shall we use Meteonorm or Solargis for GHI data, please clarify	Yes, any of them is acceptable
90	Plant 1S2E Section 6 Employer's requirements	2.8.4	34	All	There are existing synchronizers for generation connection and also manual load following operation strategy defined by the power house operators. What is the model of synchronizer present in the system?? Kindly share the technical datasheet	All islands have Deepsea controllers (either DSE8810 or DSE8610)
91	Plant 1S2E Section 6 Employer's requirements	Table 2-5	28	All	can the cable lengths given in the table be changed based on the proposed design??	Must follow the given design
92	Plant 1S2E Section 6 Employer's requirements	2.8.1	26	All	Load profile - What is the reactive power requirement from the hybrid system?? What is the power factor required for the hybrid plant operation?? Only real power of the system is mentioned in the sizing	Power factor in the considered islands is usually >0.85
93	Plant 1S2E Section 6	Table 2-6	31	All	Kindly mention the model number of the diesel generator controllers existing.	It is either DSE8810 or DSE8610 MK II for all islands

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	Employer's requirements					
94	Plant 1S2E Section 6 Employer's requirements	Table 2-6	31	Alifushi	Is the Generator rating of 600 kW derated to 160 kW based on site conditions??	This is an error, available capacity for both 600 KW DG's are 450 KW
95	Plant 1S2E Section 6 Employer's requirements	Table 2-15	39	vaadhoo	What is meant by DG controller as NA (not applicable)?? Are the sites operating without any DG controller?? Kindly clarify	DSE8610 MK II is used in R. Vaadhoo island
96	Plant 1S2E Section 6 Employer's requirements	2.(14-16).2	74	inamadhoo/Madu vvari/inguraidhoo	DG details missing	No further data available. All islands have Deepsea controllers (either DSE8810 or DSE8610)
97	Plant 1S2E Section 6 Employer's requirements	2.(21-32).2	125/132 /137/14 2/147/1 52/158	kudariklu , kamadhoo, kendhoo,kihadho o, dhoofanu,dharava ndhoo, eydhafushi, thulahdhoo, hitadhoo, fuladhoo, fehendhoo	DG details missing, Location coordinates missing	No further data available. All islands have Deepsea controllers (either DSE8810 or DSE8610)
98	Plant 1S2E Section 6 Employer's requirements	3.2.2.4	191	-	The Bidder shall demonstrate a track record for the selected PV module of at least 50 MWp. - 50MWp reference is required for make or for the model of the module, please clarify	make

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99	Plant 1S2E Section 6 Employer's requirements	3.2.2.4	191		Modules shall be PID free. A certificate form an independent third party is required.- If we use 1500V module, we presume the certificate from independent 3rd party is not required, please clarify	3rd party certificate is a requirement
100	Plant 1S2E Section 6 Employer's requirements	3.2.2.5	192		We would like to propose tolerance of the PV Module as 0.9% max and will not be deviation from the mentioned figure of 2.5%, please clarify	Will not be a deviation
101	Plant 1S2E Section 6 Employer's requirements	3.2.2.6	192		The covers shall be resistant against environmental influences like UV and salt-laden air - Please elaborate the requirement clearly	No further clarification required
102	Plant 1S2E Section 6 Employer's requirements	3.2.4.2	195		The roof covering shall be refurbished / renewed before the installation of PV modules mounting structure starts in cases there the roof covering shows signs of corrosion or any other signs of deformation.- Please share us the list of roofs that are corrugated	Winning bidder shall do the site survey to confirm this.
103	Plant 1S2E Section 6 Employer's requirements	3.2.4.2	196		Any contact between unlike metals shall be avoided by use of suitable insulation materials like plastic or rubber separation strips.- As the modules are grouded independently with a separate earthing conductor and is connected to main earthing conductor whatever leakage currents from modules will directly grounded. Moreover 1500V will not offer any leakage current when we use them for 1000V system.	No

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					Therefore we recommend to withdraw the clause.	
104	Plant 1S2E Section 6 Employer's requirements	3.2.4.3	196		We would like to propose ballast foundation complying to specified conditions for ground mount system inorder to ease the installation, request to accept the same	Please refer to the attached typical drawings
105	Plant 1S2E Section 6 Employer's requirements	3.2.4.5	196		Is Al cables acceptable for AC Side?	No, must be copper conductor
106	Plant 1S2E Section 6 Employer's requirements	3.2.6	202		We will be proposing String Inverter with multiple MPPT which doesn't require a seperated DC Combiner, we persume DC Combiner box is not required in this case.	Correct
107	Plant 1S2E Section 6 Employer's requirements	3.2.6.4	204		Earthing bars shall be connected to the PV power plant earthing system- Please elabore the requirement	No further clarification is required
108	Plant 1S2E Section 6 Employer's requirements				Monitoring devices for DC junction boxes: - As state in S.no 11 String Inverters with Multi MPPT doesn't require DC Combiner , therefor this clause shall be waived for String Inverter with multiple MPPTS	Correct
109	Section 6	General		All	Please share the Google Coordinates for all the Individual locations	Approxiamte locations are given in Section 6. Kmz files are also provided
110	Section 6	2.10.3	47/306	Rasgetheemu	In E03 There is Cement Sheets. Requesting to EPC replace it. Please confirm the scope with Client?	Yes. Shall be replaced
111		General			Cable Routing to be confirmed for exact Length	Follow the lengths given in the grid upgrade drawings

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112		General			Roof Replacement is also required at some Island. Please confirm	Winning bidder to confirm after site surveying.
113		General			There are approximately 5 Sites for each island, totalling 125 Sites having 20-25 KWp each. Hence Generalized working will be opted for offer preparation	Ok
114		General			Air-Condition is required for inverter. Please confirm since Inverter do not require AC	Air-condition is not required for PV inverters
115		General			PV inverter to be kept outside	Correct
116		General			Gross Metering can be opted for all the roofs & can be evacuated at existing nearby Distribution Grid	Correct
117	Plant 1S2E Section 6 Employer's requirements	Table 2-2	26	Type C islands	Total battery capacity with at least 1C nominal discharge rate. For type C Islands 0.5C discharge rate is enough. Do those island batteries also require 1C nominal discharge rate??	All islands require at least C-rate = 1
118	Plant 1S2E Section 6 Employer's requirements	Table 2-2	26	All	The minimum battery and power capacity mentioned is the installed capacity. useful capacity (required at the point of interconnection) will be lesser considering the efficiency and losses of the equipments. Is there any limitation on the useful/installed capacity??	No further limitation
119	Plant 1S2E Section 6	3.3	208	The system shall operate fully automated, be remotely monitored and be	In order to ensure safety, battery modules are dispatched separately and gets installed at site	Yes

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				delivered as a turn-key system		
120	Plant 1S2E Section 6	3.3.1	210	The battery must be able to provide a minimum of 6000 (Six thousand) cycles at 80% of DoD at 25°C. End of Life shall be 60% of initial capacity.	We understand DoD during operation may be higher than 80% at the time of operation as per the recommendation of the OEM.	Yes
121	Plant 1S2E Section 6 Employer's requirements	3.3.1	210	All	The Battery must be able to supply the required power as stated in the table in Chapter 2.5 (column "Battery and battery inverter required minimum power") for at least 30 minutes for Type B and for at least 60 minutes for Type C systems. As per the table Type C is for 2 hours. kindly clarify	Minimum service duration for Type B and for Type C is given as a reference. For bidding purposes, follow stated BESS capacities (energy and power)
122	Plant 1S2E Section 6 Employer's requirements	3.3.1	210	All	The battery must be able to provide a minimum of 6000 (Six thousand) cycles at 80% of DoD at 25°C. End of Life shall be 60% of initial capacity. Kindly clarify the daily operational cycles expected.	For Type C we are expecting 1 full cycle/day and for Type B more than 20 shallow cycles per day. For bidding purposes, Type B can be assumed to take 1 full cycle/day
123	Plant 1S2E Section 6 Employer's requirements	3.3.2	211	All	The overload capability of the inverter must be at least 150% of its nominal power for at least 30 seconds. Only few tier-1 models	120% for 10 seconds is the requirement (Section 4 Battery inverter data form)

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					matches this criteria. Is the requirement can be flexible??	
124	Plant 1S2E Section 6 Employer's requirements	3.3.2	211	All	The inverter must be able to provide sufficient short circuit power to the system. The required currents must be in accordance with the grid protection concept and the grid study. Kindly detail the requirement of Short circuit contribution from the inverters.	The proposed solar PV plants shall contribute to overall power system stability by providing also immunity towards dynamic voltage changes The PV generating plant shall be capable to stay connected to the low voltage network as long as the voltage at the point of connection remains above the voltage-time diagram of figure bellow. The voltage is relative to the nominal voltage at the point of connection. The smallest phase to phase voltage shall be evaluated. The compliance to such Low-Voltage Ride Through (LVRT) requirement shall apply to all equipment within a solar PV generating plant that might cause its disconnection. After the voltage returned to the voltage range, the pre-disturbance operating conditions (active & reactive power) shall be resumed as fast as possible and with a tolerance of $\pm 10\%$ of the generating plant rated power

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125	Plant 1S2E Section 6	3.3.2	211	The overload capability of the inverter must be at least 150% of its nominal power for at least 30 seconds	Most of the PCS vendor have overloading capability of 150% of its nominal power for 10 sec only. Please change this clause accordingly.	120% for 10 seconds is the requirement (Section 4 Battery inverter data form)
126	Plant 1S2E Section 6	3.3.2	211	The inverters shall be equipped with suitable DC-breakers and fuses for the battery strings, they shall both be easy accessible and exchangeable.	Most of the PCS vendor don't provide fuses on DC input side. Rather we will provide DC fuses on DC Combiner panel. Please accept	DC breakers or fuses shall be provided on input side of PCS
127	Plant 1S2E Section 6	3.3.3	212	The battery shall preferably be installed in a room/additional building next to the power house where the genset power system is located. It is also allowed to extend the powerhouse for this purpose or provide the system in a pre-wired ISO-Container that	Can we propose Prefab room also ?	yes

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				shall be installed next to the powerhouse.		
128	Plant 1S2E Section 6 Employer's requirements	3.4.5	216	All	Existing Diesel Generator controllers shall be removed and generators shall be connected to the generator synchronizing panel boards supplied under this project in order to fit the requirements of the hybrid system. Is synchroniser panel to be supplied as part of the project for all the islands?? what is the scope if there are existing synchronizer panels in some of the islands??	Refer to section 6 table 2-5 for islands which require replacing of LVDB. For other islands, LVDB modification will be required for BESS/PV feeders as per the grid upgrade drawings provided
129	Plant 1S2E Section 6 Employer's requirements	3.7.2.7	260	All	The PCMS shall support at least 5 DG sets and 10 PV sites without any modification or upgrade to the system. Most of the leading EMS manufacturers supply distributed EMS which requires addition of controllers when there is an addition of power source in future. kindly elaborate the requirement. In that case can we assume that the centralized PCMS is to be preferred ??	This is upto the bidder. For example, if there is addition of a DG in future, our requirement is that it be possible to add DG to the existing controller without any upgrade to the system or reliance on the controller manufacturer
130	Plant 1S2E Section 6 Employer's requirements	3.8.7	269	All	The inverter shall not inject reactive power into the utility network, while the drain of reactive power shall be limited to a power factor of 85%. The inverter shall operate at these power factors in the range 10% to 100% of nominal power. - During type C standalone operation, only Solar PV and PCS inverters will	We consider reactive power injection from inverters during standalone mode

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					power the loads. in that case reactive power to be provided by inverters. kindly consider the reactive power injection from iverter during standalone mode	
131	Plant 1S2E Section 6	2.6 & 2.7	26 & 27	Capacity	Please confirm if the capacity mentioned here is required the useable capacity at BOL	Confirmed
132	Plant 1S2E Section 6	2.3	16	Design temperature	Please confirm what design temperature should we consider	Refer to Section 6. Subsection 2.3 Climatic conditions
133	Plant 1S2E Section 3_EQC	1.3.4	3 of 10	1. Battery lifetime guarantee - 6000 cycles at 80% of Depth of Discharge (DOD) at 25°C (End of Life 20 years @ 60%). Official statement of the manufacturer is required.	Please confirm. 1. This is the gurantee required for all projects irrespective of C-rate? 2. In general battery gurantees are in terms of either 6000 cycles or 20 years, whichever happens earlier. 3. In order to provide battery lifetime guarantee, OEM requires battery usage profile.	Yes
134				General	Number of Cycle/day that we need to consider	For Type C we are expecting 1 full cycle/day and for Type B more than 20 shallow cycles per day. For bidding purposes, Type B can be assumed to take 1 full cycle/day

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135	Plant 1S2E Section 7_GCC	1. Definition	7-5	“Defect Liability Period” means the period of validity of the warranties given by the Contractor commencing at Completion of the Facilities or a part thereof, during which the Contractor is responsible for defects with respect to the Facilities (or the relevant part thereof) as provided in GCC Clause 27 (Defect Liability) hereof.	<p>Since there are 26 islands, would there be multiple DLPs with respect to the completion of each island?</p> <p>Would there be single DLP ? & when will the DLP start</p>	DLP will be considered at the completion of all facilities

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136	Plant 1S2E Section 7_GCC	9.6 -Contractor's Responsibilities	7-11	9.6 The Contractor shall permit EIB to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by EIB, if so required by EIB.	We suggest to allow the information through "right to information". However any audit should not be made permitted by EIB. Pls confirm	Confirmed

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137	Plant 1S2E Section 7_GCC	10.2 - Employer's Responsibilities	7-11	10.2 The Employer shall be responsible for acquiring and providing legal and physical possession of the Site and access thereto, and for providing possession of and access to all other areas reasonably required for the proper execution of the Contract, including all requisite rights of way, as specified in the Appendix (Scope of Works and Supply by the Employer) to the Contract Agreement . The Employer shall give full possession of and accord all rights of access thereto on or before the date(s) specified in that Appendix .	Suggest addition of the word "Employer shall not delay to provide necessary support for this".	No changes accepted

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138	Plant 1S2E Section 7_GCC	19.5 - Subcontracting	7-19	19.5 If a Sub-contractor's obligations extend beyond the expiry date of the relevant Defects Liability Period and the Project Manager, prior to that date, instructs the Contractor to assign the benefits of such obligations to the Employer, then the Contractor shall do so	we suggest the given clause to be deleted. Subcontractor is appointed by Contractor and if gets delayed then upon proper reasoning for such delay, it shall be granted EOT likewise it is granted to Contractor in this Contract	No changes accepted

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139	Plant 1S2E Section 7_GCC	33.3 -Loss of or Damage to Property; Accident or Injury to Workers; Indemnification	7-41	The Employer shall indemnify and hold harmless the Contractor and its employees, officers, and Subcontractors from any liability for loss of or damage to property of the Employer, other than the Facilities not yet taken over, that is caused by fire, explosion, or any other perils, in excess of the amount recoverable from insurances procured under GCC Clause 34, provided that such fire, explosion, or other perils were not caused by any act or failure of the Contractor.	WE suggest following addition to the clause - The Employer shall indemnify and hold harmless the Contractor, the Contractor's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of bodily injury, sickness, disease or death, which is attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents.	No changes accepted

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140	Plant 1S2E Section 3_EQC	2.4 - 2.4 BIDDER'S EXPERIENCE	3-8	Design, supply, implementation, commissioning of Lithium-ion battery systems ≥ 50 kWh – at least 1 completed project	As Sterling & Wilson, we have Similar projects with given capacities - As can be observed that the projects are similar to your project with huge capacities in terms of Solar/Battery/Dg. However, the batteries are not Li Ion batteries whereas the overall process of designing the system & integration of all sites were as challenging as with any battery chemistry. In the lieu of situation, we request you to kindly remove the specific requirement of Li-Ion batteries	No changes accepted
141	Section 9 – Contract Forms	Appendix 3 - Insurance Requirements	`9/13	Third Liability insurance : United States Dollars 100,000,000 any one occurrence and unlimited in the aggregate during the period of insurance	The sum insured will be 10% of the erection all risk sum insured.	The query is not clear.
142	Section 9 – Contract Forms	Appendix 3 - Insurance Requirements	`9/12	(b) Installation All Risks : Insurance Deductible limits : 50,000 USD	Deductibles limits of all policies like marine , CAR , Third party liability should be as per Market Practice . Please reconsider deductible limits	No changes accepted

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143	Section 9 – Contract Forms	PERFORMANCE SECURITY	Pg 9-21		Kindly confirm Performance security should be valid upto the period of 18 months after completion certificate as per Contract form	Confirmed
144	Section 4 – Bidding Forms	Schedule No. 3: Design Services	Pg 4-19		Please do confirmation Project is in 25 islands not 26 islands. Please correct in Schedule no.3, item 1 & 2	26 islands. One island in Baa atoll will only have an EMS installed under this project (there is existing PV and BESS on the island).
145				Submission Date	<p>Considering the quantum of project which is spread across 26 islands with individual systems, we would like to submit that the bid preparation would require us to work extensively on various fronts. Moreover as the world is currently struggling with the Corona outbreak, the response of our vendors & contractors has delayed as compared to regular times.</p> <p>Considering the challenges & our intent to submit a genuine bid with the best techno-commercial offer, we request you to please consider extending the bid submission by at least one (01) month i.e. till 24th June 2021.</p>	Three weeks extension will be provided
146		<i>Schedule No. 4 - Installation and Other Services Integrate the hybrid System to Existing Central SCADA</i>			Whether the Employer will provide the free interface from the supplier of Existing Central SCADA, if not the bidder will account the cost to acquire the interface from previous supplier.	Employer will provide

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147		Schedule No. 4 - Installation and Other Services Overseas training program (28 participants)			During the period Pandemic of COVID, in case the travel restriction applied, whether is it possible to delay the training? Furthermore, additional cost of quarantine, vaccines shall be considered in the quoted price?	Any schedule modification related to Covid restrictions has to be approved by the Employer. All costs are to be covered by the bidder
148		Section 8 SCC INSTALLATION 22.1.1 (a) The contractor shall comply with (i) the measures and requirements set forth in the resettlement plan to the extent it concerns impacts on affected people during construction; and (ii) any corrective or preventive actions set out in safeguards monitoring reports that the Employer will prepare from time to time to monitor implementation of the resettlement plan. The contractor shall allocate a budget			Please provide the above measures, and the cost of acquire the project site, including the land or rooftop, and access way to project site whether will be included in the project quoted price?	There is no cost of acquire the project site, including the land or rooftop as well as access way to project

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		for compliance with these measures, requirements and actions.				
149		ITB 23.1: Electronic submission of bids is not allowed.			It is requested that due to prevailing situation due to COVID, electronic submission of bids may be allowed.	Electronic submission is not allowed

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150					Since electronic submission of bid is not allowed, we will have to dispatch the bids at least one week before deadline to ensure delivery before deadline. Considering the huge scale of the project, this leaves us with very small time to complete the technical and financial aspects of the bid. It is, therefore, requested that the <u>bid submission deadline may be extended by at least 3 weeks.</u>	Three weeks extension will be provided
151					For submission of registration fee of USD 100, 2 account numbers have been provided i.e. Intermediary Bank and Beneficiary Bank's Account. Please clarify this. In which account we have to deposit USD 100 registration fee.	Beneficiary Bank's Account
152					Please clarify whether the existing generators are running simultaneously or separately as per the load?	Existing generators share the load and synchronized with generators operated based on the load
153					What would be the minimum base load for each island that has to be run all the time?	This information is not considered as necessary in bidding stage. More information will be provided to the winning bidder
154					To synchronize the inverters installed at different locations, the data logger has some limitations in terms of distance to communicate effectively. Please share the distance of each building from each other.	Locations are provided on Google earth satellite images (Section 6 chapter 2.8 to 2.32 under profile for each island). Bidder may make an estimated distance using them which should be enough to select correct data logger.

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155					What if the proposed roof/location is not suitable for PV panel installation? E.g roof structure are too old to support weight of structure and PV panel.	Winning bidder can do survey in detail design stage
156					Inconsistent system capacity and mounting type (rooftop or ground mounted) information between Tender document, Section 6 and Conceptual SLD drawing. To clarify which document to refer for PV system design	Please follow SLD drawing.
157					Missing roof information for all islands from F02-F15 lead to insufficient information to run PVsyst simulation	For those islands with insufficient information to run PVsyst simulation, it is not mandatory to submit it at the bidding stage
158					Project title stated 26 islands but only 25 islands listed in section 6 (13 – Raa atoll + 12 – Baa atoll)	26 islands. One island in Baa atoll will only have an EMS installed under this project (there is existing PV and BESS on the island)
159	Section 6 - 3.1				Roof plan is not given to propose general layout a. Elaborate “Proposed daily operation for the hybrid systems”	At this stage, there is no need to provide that information
160	Section 6 - 3.2				Elaborate “The nominal cumulative DC power (STC conditions) of the PV systems shall amount at least to 2.49 + 0.985 MWp (+2.5%/-0%), distributed on 12 + 4 islands (+/- 10% DC power variation is allowed on the specific islands as long as the total contractual amount is within the above given range)” - The above	Yes

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					highlighted quantity not relevant to this tender	
161	Section 6 - 3.2.5.7				Selected PV inverters shall have a maximum nominal AC rating of 30 kVA - To propose maximum AC rating of 110kVA	No
162	Section 6 – 3.2.5.8				“If the inverters are to be installed indoor, the inverter room shall be equipped with redundant air conditioning units, light and plugs.” - Equipment cost by contractor? Not stated in BOQ	By contractor
163	Section 6 - 3.2.6.4				Monitoring devices for DC junction boxes” - Can this be excluded as string monitoring already available from each PV inverter	Yes
164	Section 6 – 3.4.5				Existing Diesel Generator controllers shall be removed and generators shall be connected to the generator synchronizing panel boards supplied under this project in order to fit the requirements of the hybrid system - To confirm supply of generator synchronizing panel boards, as contradict to 1.2 “... there is no replacement or upgradation of the	1.2 refers to diesel generators. Generator synchronizing and distribution boards are included in scope of this project

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					existing generator system..." (page 12)	
165	Section 6 – 3.7				<p>"... PCMS will be fully compatible with existing D-hybrid central SCADA located in Male."</p> <p>- Please provide D-hybrid central SCADA details e.g communication protocol between PCMS-SCADA</p>	See attachment
166	Section 6 – 3.7.5				<p>"... The PCMS shall have the communication via Modbus TCP to all energy producers, respectively Diesel Generators, PV inverters and BESS units."</p> <p>- Propose Modbus TCP and/or Modbus 485</p>	Generator Controllers have Modbus communication.
167	Section 3 - 2.5				<p>a. "PV Modules manufacturer - Selected products for the project must have at least two (2) years of reliable operation..."</p> <p>- At current fast changing market, PV modules capacity changes every quarter, propose latest model at time of installation"</p> <p>b. "PV string inverter manufacturer – Selected products for the project must have been in reliable operation for at least two (2) years</p> <p>- Propose latest model at time of</p>	Two (02) years of reliable operation refers to the make or manufacturer, not the model

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					<p>installation as older model could be obsoleted very soon.</p> <p>c. "Lithium-ion battery manufacturer - Selected products for the project must have at least two (2) years of reliable operation with an aggregated capacity of at least Fifty (50) MWp outside manufacturer's country"</p> <p>- Propose latest model at time of installation as older model could be obsoleted very soon.</p> <p>d. "Hybrid system controller – selected products for the project must have been in reliable operation in hybrid systems for at least two (2) years</p> <p>- Propose latest model at time of installation as older model could be obsoleted very soon.</p>	
168	Section 3	Evaluation and Qualification Criteria	pages 3-7 & 3-8		<p>Questions: 1) Please inform bidders, if they can use the experience of a specialized subcontractor in order to comply with Criteria "2.4.1 Contracts of Similar Size and Nature" and "2.4.2 Experience in Key Activities".</p>	No. This is not allowed. Requirements in 2.4 should be met by the Bidder or a partner of the JV.
169					<p>If yes, please confirm that we will have to fill in the Forms "EXP – 1: Contracts of Similar Size and Nature" and "EXP - 2: Experience in Key Activities" under the subcontractor's name and not the bidder's.</p>	Not Applicable.
170					<p>If yes, please let us know which other forms are obliged to be</p>	Not Applicable.

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					completed for the aforementioned issue.	
171					Please inform bidders, if they can use the experience of a subsidiary company, 100% owned by the bidder, in order to comply with Criteria “2.4.1 Contracts of Similar Size and Nature” and “2.4.2 Experience in Key Activities”.	The experience of other firms such as bidders subsidiaries, parent entities, affiliates, subcontractors will not be considered for requirements in Section 3, 2.4
172		Contracts of Similar Size and Nature The requirement mentions that “Participation in at least two contracts [...], where the value of the Bidder’s participation exceeds \$ 12,800,000.00 per contract.” & Section 4 – Bidding Forms – page 4-76 - Form EXP – 1: Contracts of Similar Size and Nature The requirement mentions “Participation in at least two contracts [...],			Please confirm that the correct value per contract is the 5,000,000 USD.	Requirements in Section 3 will apply. Bidding forms will be revised.

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		where the value of the Bidder's participation exceeds \$ 5,000,000.00."				
173	Section 3				What Type of genset controllers is used? Kindly provide an overview of the exact models and communication interfaces (Modbus TCP, RS485, RS232)	Deepsea controllers (either DSE8810 or DSE8610 MKII)
174					Kindly explain requirements towards the fuel meter replacement?	it just refers to the fuel meter itself
175		"The Battery must be able to supply the required power as stated in the table in Chapter 2.5 (column "Battery and battery inverter required minimum power") for at least 30 minutes for Type B and for at least 60 minutes for Type C systems. Acceptable nominal discharge-rate : 0.5C to 2C as long as the	Page 210		Kindly confirm this design guideline is applicable and allows to adapt the kWh capacities stated in table 2.2 Chapter 2.5 accordingly, e.g.: Island E02 (type C): 400 kWh with 1 C batteries or 200 kWh with 2 C batteries	There is confusion with this requirement. Minimum C-rate for all islands is 1. Minimum BESS energy capacity is the one provided by the Employer in Section 2.6

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		required functionalities and specifications are fulfilled: depending on the nominal discharge rate (C-Rate) of the battery offered by the Bidder, the minimum required battery capacity specified in the Table 2 2 Chapter 2.5 for 1C (nominal discharge rate) batteries must be adapted"				
176					Relay for remote start available? [Yes/No] Is our understanding correct if we assume that "No" means that the genset controller has available and free terminals for remote start, but they are not wired at the moment?	YES
177					The tender is called "Procurement of Design, Supply and Installation of Grid-tied Solar PV-Diesel Hybrid Power Generation Plants in 26 inhabited islands of Raa and Baa Atolls in Maldives " However, the technical requirements are defined for 25 islands only. Kindly clarify whether one needs to look at 25 or 26 islands.	26 islands. One island in Baa atoll will only have an EMS installed under this project (there is existing PV and BESS on the island).

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178					What are the vector group of the required step-up transformers? 400 V / 11 kV	Step up voltage :0.425/11kV Insulation level : 12kV Vector group : YnD1 Step down voltage : 11/0.415kV Insulation level : 12kV Vector group : Dyn11
179					For islands like E02 Vaadhoo Island, it is stated "NA" in the column of diesel generator controllers. Does this mean that there is no genset controller in place? Do they have to be supplied in the scope of the project? If yes, is there any preferred brand / type which should be supplied?	The scope is mentioned in the LVDB/LVDB Modifications SLDs. For islands where controller is required it is mentioned in the SLD
180					Are the operator Workstation PCs scope of the tender?	Yes
181					Kindly confirm none of the power houses in this tender is subject to relocation.	Confirmed
182		Existing Diesel Generator controllers shall be removed, and generators shall be connected to the generator synchronizing panel boards supplied under this project in	Page 215:		Is this applicable to all genset controllers?	Only those under the scope of the project

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		order to fit the requirements of the hybrid system.				
183		"The PCMS shall have the communication via Modbus TCP to all energy producers, respectively Diesel Generators, PV inverters and BESS units."	page 263:		Are other communication forms, such as Modbus RTU / RS485 also possible to use, e.g. for communication with PV inverters or power meters?	Yes
184					Is there a preferred location for the weather station? Should the location be considered at the power house or at one of the PV systems?	Both locations are allowed
185					A FO cable needs to be placed to the Island Councils 1. Does it need to be part of the redundant communication network ring or is a sufficient a single communication line between power house and island council sufficient? 1. Is there any IT equipment to be considered on Island council side	1) It is sufficient a single communication line and 2) Any IT required equipment is also under the scope of the project

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					that needs to be supplied within the scope of the tender?	
186					Whether the total capacity of PV modules is allowed to be modified? If it is allowed to be modified, what is the allowance of capacity floating (+- percentage)? and what is the bid evaluation criterion for the different capacities of the bidders' bidding schemes.	PV capacity is fixed. There is no
187					Request to extend the submission deadline Due to the current COVID situation in Maldives (daily infection numbers are increasing dramatically), we strongly request an extension of bid submission deadline of 20 days as for all bidders would have enough time to tackle with the situation.	Three weeks extension will be provided
188					Again, abiding by the COVID travel restriction currently in Maldives, it is impossible for us to visit every island included in the bid. So we would like to request the employer to provide photos and information (like supporting structure and materials to the rooftop) of the installation site ,	No further information is available at this stage

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					in order to ease the difficulties facing by the bidders.	
189					According to our experience and foreseen the pandemic development in Maldives and global, we suggest the employer to re-consider the project duration (360 days). The 540 days or a longer time schedule will be more practicable.	No changes allowed
190					From the drawings we see the required systems for the islands but it is not completely clear what the present situation is. If possible we would like to receive the drawings and line diagrams of the present situation, including the specifications of the present generator sets. Additional to the specifications we would like to receive the specifications of the control systems of the generators and the interface possibilities.	Currently there are 3 to 4 generators in parallel at each island and existing diesel generator controllers are DSE8810 from Deep Sea Controllers.
191					We have reviewed the bidding documents in details. We believe that it would be the best for the sake of the project, if the submission deadline were extended. Can you consider extending your submission deadline until the 1st of July? This would help all bidders prepare better quality bidding documents. Even if we have existing suppliers, they informed us that they are NOT able to quote fast during this COVID19 pandemic period. We also discussed	Three weeks extension will be provided

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					this with our local partner in Maldives, and majority of their staff are working from home, which slows down the whole process significantly.	