



#	Reference	Query / Question	Responses / Clarifications / Confirmation / Addendum
1.		We wish to request to extend the closing date of the tender by 2 weeks' time. Pls. consider that we have lost 1-week time of the process as the pre-bid meeting was postponed.	The closing date is to be extended one month to 8 <sup>th</sup> January 2026. Kindly refer to Addendum 3.
2.		We will be submitting the proposal as a joint venture company. The Joint Venture Company will be formed at the time of an order. Pls. confirm that MOU and a letter of intent sufficient at the tendering stage to qualify.	MOU and a letter of intent are sufficient at the tendering stage. Supporting Power of Attorney should also be provided.
3.	Sec. 6. Clause 1.2	Sec 6 Clause 1.2 says. "review of static calculations and where such are not available static verification of the proposed locations" – Pls. confirm whether any static calculations are available. If available, pls. let us have same.	Static calculations are not provided in the Employer's Requirements. The Bidder shall investigate and collect necessary information; the Contractor is responsible to visit sites and ascertain information required for design.
4.	Sec, 6. Clause 1.2	Section 6 Clause 1.2 says "survey related to the grid upgrade works which include but not limited to cable routes from BESS to grid in each island, condition assessment of low voltage distribution boxes, LV distribution boards in Powerhouse, LV distribution boards in substations, MV distribution network (where applicable) etc. "As a visual inspection will not be able to ascertain the condition of the switch gear, pls. let us know the switchgear is in working order.	See the answer to the query No. 5.
5.	Sec. 6. Clause 2.6.3. & Sec. 6 Clause 2.7.3.1 Electrical drawings	Re. 2.6.3.1 / 2.7.3.1 The Electrical system what is the scope LVDB panels / Extensions? Is this in the tender scope?	The Contractor is responsible for the electrical connection to the existing system and for connecting battery inverters to a dedicated feeder on the main LV distribution board (BESS section). Therefore,

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			LVDB connections/extensions and connection to main LV distribution board are within Contractor's electrical connection responsibilities. But the LVDB panel extension itself for the connection is out of the scope of this project.
6.	Sec. 6. Clause 2.5	<p>Clause 2.5 Summary of the characteristics of the BESS to be built</p> <p>Table 2-1: Summary of BESS &amp; EMS System to be installed in each atoll</p> <p>Please provide the following details of existing controller details.</p> <p>L06 – F NILANDHOO, PV controller: Number of controllers, Make and Model</p> <p>A10 – HA DHIDHOO, PV controller: Total Capacity, Number of PV Controllers and their capacities, Make and Model.</p>	<p>Let me correct as follows:</p> <p>F Nilandhoo: Total capacity is 1.74 MW (1.2 MW floating solar + 0.25 MW Solar Home System (SHS) + 0.29 MW rooftop solar</p> <p>Ha Dhidhoo: Total capacity is 2.43 MW (2.18 MW ground mounted solar + 0.25 MW rooftop solar)</p> <p>Number of controllers, make and model shall be confirmed by the Contractor after awarded.</p>
7.	Sec. 6. Clause 2.6.2	<p>Clause 2.6.2 : Diesel Generators</p> <p>Table 2-3 : L06 Diesel Generator currently installed: Pls: give us the details of current Genset/s Controller , Make and model.</p>	<p>Maker: Deep Sea Electronics</p> <p>For security reasons, the other information is not provided in the bidding stage.</p>

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8.	Sec. 6. Clause 2.7.2.	<p>Clause 2.7.2 : Diesel Generators</p> <p>Table 2-5 : A10 - Diesel Generators currently installed: Pls. give us the details of current Genset Controller , Make and model.</p>	<p>Maker: Deep Sea Electronics</p> <p>For security reasons, the other information is not provided in the bidding stage.</p>
9	Sec. 6 Clause 2.7.3.1	<p>Clause 2.7.3.1 : Electrical system</p> <p>EMS is present on this island to control the DG, PV, and small BESS.</p> <p>Please provide us with the I/O list of existing EMS with DGs.</p>	<p>For security reasons, the information is not provided in the bidding stage.</p>
10.	Sec. 6. Clause 3.4	<p>Clause 3.4 : Energy Management System – EMS</p> <p>The EMS will be fully compatible with existing D-hybrid central SCADA located in Male. Pls give us the type signal to be received by the SCADA system, ( eg. Modbus)</p>	<p>The EMS shall communicate via Modbus TCP to energy producers (Section: Data Communication Network). The EMS will provide data to Central SCADA; fibre/CAT6 used for media.</p>
11.	Sec. 6. Clause 3.2.3	<p>Clause 3.2.3 : No-flow Battery</p> <p>Acceptable nominal discharge-rate : 1 C to 2C as long as the 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 2-1 Chapter 2.5 for 1C (nominal discharge rate) batteries shall be adapted by the bidder if battery with different C-rates is provided.</p> <p>Our proposal</p>	<p>1,500kW battery with 1,500kWh is acceptable.</p>

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		<p>1C and 1500kWh for A10 – HA DHIDHOO ( 1C to 2C ,1500kW and 1000kWhr specified)</p> <p>Clause 2.5</p> <p>Haa Alifu Atoll</p> <p>Non-Flow (Type C)      1,500kW              1,000 kWh</p> <p>Either we have to go for 2C or increase the capacity to 1500kWh</p> <p>We will offer 1,500kW battery with 1,500kWh capacity. Pls. comment.</p>	

Per Section 3-3 and Section 3-4, the requirement for DC round-trip efficiency is  $\geq 80\%$ . However, Section 6-40 and Section 6-41 specify the requirement as  $\geq 85\%$  for the same indicator.  
Please clarify the definitive requirement value for DC round-trip efficiency.

For flow BESS

Functional Guarantee	Requirement	
	Norm	Minimum / Maximum acceptable level
Battery lifecycle*	20 years under the operation below: • Charge/discharge at the rated power • DOD: 100% • Full auxiliary load	15 years at minimum under the operation below: • Charge/discharge at the rated power • DOD: 100% • Full auxiliary load
Initial available battery capacity	2,000 kWh	
Available battery capacity at the end of lifecycle	1,900 kWh	1,700 kWh at minimum
Battery DC round trip efficiency	80 %	
Inverter conversion efficiency (one way)	95 %	
Electrolyte tank structure	Having duplicated acid-resistant structure	

There is inconsistency among several sections of the bidding documents. Please regard as follows.

DC roundtrip efficiency of flow BESS shall be  $\geq 80\%$ .

DC roundtrip efficiency of non-flow BESS shall be  $\geq 85\%$ .

For non-flow BESS

Functional Guarantee	Requirement	
	Norm	Minimum / Maximum acceptable level
Battery lifecycle*	20 years under the operation below: • Charge/discharge at the rated power • DOD: 70% • Full auxiliary load	15 years at minimum under the operation below: • Charge/discharge at the rated power • DOD: 70% • Full auxiliary load
Initial available battery capacity	1,000 kWh	
Available battery capacity at the end of lifecycle	700 kWh	600 kWh at minimum
Battery DC round trip efficiency	80 %	
Inverter conversion efficiency (one way)	94 %	
Safety	The non-flow battery shall be compliant with IEC62133-2 or IEC 60896-22	

\*: A copy of the manufacturer's test report open to the public, submitted to an external official agency, or published in a reputable international journal shall be submitted in Technical Bid

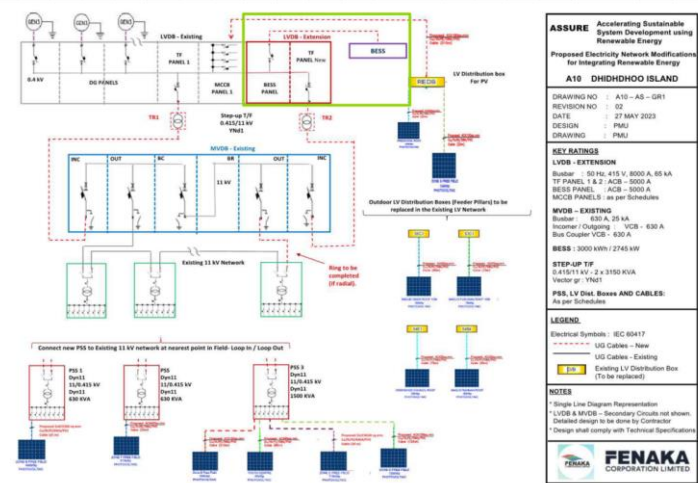
**Form Data Sheet Flow Battery**

To be filled by the Bidder using 1 dedicated form per battery type

No.	Description	Unit	Requirements	To be filled by Bidder	
				Data	Note
<b>1</b>	<b>General</b>				
1.1	Manufacturer				
1.2	Battery chemistry (active material)				
1.3	Battery type (cylindrical, prismatic, etc.)				
1.4	Enclosure Specifications (indoor, outdoor, IP-class)				
1.5	Min / Max operation temperature	°C	-5° / +40°		
1.6	Special conditions		Salt Air, high humidity		
1.7	Max. relative humidity	%	≥80		
1.8	Calendar lifetime	Years	≥15		
1.9	On which page/chapter of the bid can the manufacturer datasheet be found?				
<b>2</b>	<b>Electrical</b>				
2.1	Usable capacity @ nominal discharge output	kWh	≥2,000		
2.2	Nominal discharge output	kW	≥500		
2.3	Self-discharge	%/time			
2.4	Cycle efficiency (DC round trip)	%	≥85		
2.5	Maximum DC voltage	V	<1,000		
2.6	Minimum DC Voltage	V			

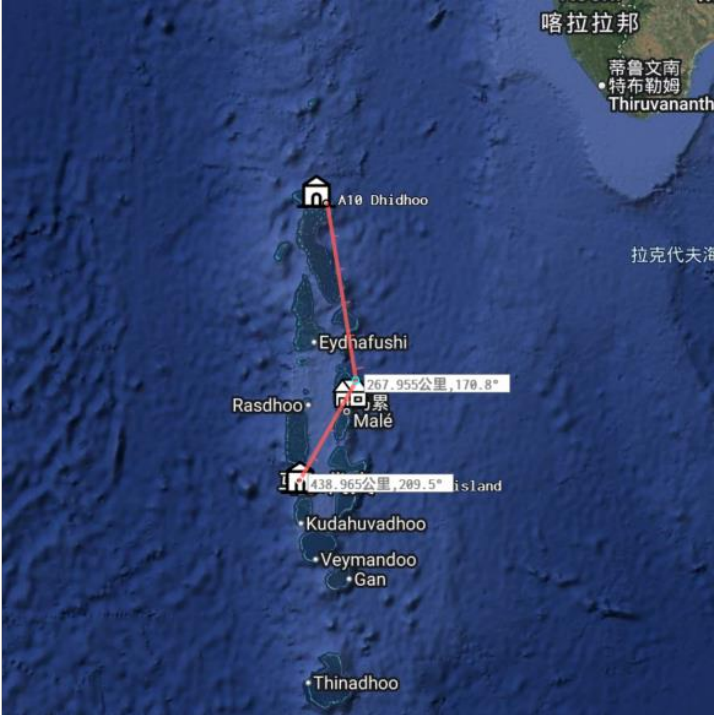
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		<p style="text-align: center;"><b>Form Data Sheet Non-Flow BESS</b></p> <p>To be filled by the Bidder using 1 dedicated form per battery type</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">No.</th> <th rowspan="2">Description</th> <th rowspan="2">Unit</th> <th rowspan="2">Requirements</th> <th colspan="2">To be filled by Bidder</th> </tr> <tr> <th>Data</th> <th>Note</th> </tr> </thead> <tbody> <tr> <td><b>1</b></td> <td><b>General</b></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1.1</td> <td>Manufacturer</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1.2</td> <td>Battery chemistry (active material)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1.3</td> <td>Battery type (cylindrical, prismatic, etc.)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1.4</td> <td>Enclosure Specifications (indoor, outdoor, IP-class)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1.5</td> <td>Min / Max operation temperature</td> <td>°C</td> <td>-5° / +40°</td> <td></td> <td></td> </tr> <tr> <td>1.6</td> <td>Special conditions</td> <td></td> <td>Salt Air, high humidity</td> <td></td> <td></td> </tr> <tr> <td>1.7</td> <td>Max. relative humidity</td> <td>%</td> <td>≥80</td> <td></td> <td></td> </tr> <tr> <td>1.8</td> <td>Calendar lifetime</td> <td>Years</td> <td>≥15</td> <td></td> <td></td> </tr> <tr> <td>1.9</td> <td>On which page/chapter of the bid can the manufacturer datasheet be found?</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><b>2</b></td> <td><b>Electrical</b></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2.1</td> <td>Usable capacity @ nominal discharge</td> <td>kWh</td> <td>≈ 1,000</td> <td></td> <td></td> </tr> <tr> <td>2.2</td> <td>Nominal discharge output</td> <td>kW</td> <td>≈ 1,500 / ≈ 500</td> <td></td> <td></td> </tr> <tr> <td>2.3</td> <td>Self-discharge</td> <td>%/time</td> <td></td> <td></td> <td></td> </tr> <tr style="border: 2px solid red;"> <td>2.4</td> <td>Cycle efficiency (DC round trip)</td> <td>%</td> <td>≥85</td> <td></td> <td></td> </tr> <tr> <td>2.5</td> <td>Maximum DC voltage</td> <td>V</td> <td>&lt;1,000</td> <td></td> <td></td> </tr> <tr> <td>2.6</td> <td>Minimum DC Voltage</td> <td>V</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2.7</td> <td>Nominal DC current (phase)</td> <td>A</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	No.	Description	Unit	Requirements	To be filled by Bidder		Data	Note	<b>1</b>	<b>General</b>					1.1	Manufacturer					1.2	Battery chemistry (active material)					1.3	Battery type (cylindrical, prismatic, etc.)					1.4	Enclosure Specifications (indoor, outdoor, IP-class)					1.5	Min / Max operation temperature	°C	-5° / +40°			1.6	Special conditions		Salt Air, high humidity			1.7	Max. relative humidity	%	≥80			1.8	Calendar lifetime	Years	≥15			1.9	On which page/chapter of the bid can the manufacturer datasheet be found?					<b>2</b>	<b>Electrical</b>					2.1	Usable capacity @ nominal discharge	kWh	≈ 1,000			2.2	Nominal discharge output	kW	≈ 1,500 / ≈ 500			2.3	Self-discharge	%/time				2.4	Cycle efficiency (DC round trip)	%	≥85			2.5	Maximum DC voltage	V	<1,000			2.6	Minimum DC Voltage	V				2.7	Nominal DC current (phase)	A				
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		 <p>The drawing is a technical schematic for an electrical network. It features a main single-line diagram at the top showing the connection between a 6.4 kV bus, DE PANELS, LVDB - Existing, BESS, and Step-up T/F. Below this, there are detailed diagrams for the LVDB - EXTENSION and MVDB - EXISTING. A legend defines symbols for LVG Cables (New and Existing) and LV Distribution Boxes. Technical specifications for BESS, STEP-UP T/F, and PSE, LV Dist. Boxes AND CABLES are provided. The FENAKA logo is visible at the bottom right of the drawing area.</p> <p>"Based on the description in the 'Installation Works and Services' section of Plant 1S2E Section4( Page [17]), the scope of work for this tender is limited to connecting to the low-voltage distribution panel. However, reviewing the main single-line diagram provided by the Employer, it indicates that a new outgoing cabinet needs to be installed for the low-voltage panel to connect to the new step-up transformer. We request confirmation on whether the new outgoing cabinet and its outgoing cables fall within the scope of work for this tender."</p>	
15		<p>2. Confirmation of Work Interface Demarcation for Procurement and Installation of PV Fiber Optic Communication Cables</p>	<p>As stated in the bidding document, the procurement and installation of PV communication optical cables for both islands are entirely excluded from the tender scope.</p>

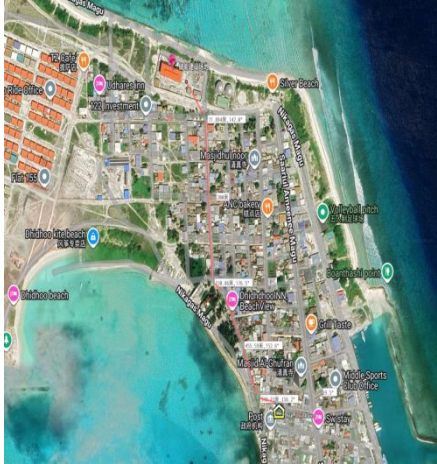
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		<ul style="list-style-type: none"> <li>▪ All local communications at the power station, in infrastructure such as power supplies, ca responsibility of the Bidder</li> <li>▪ Communications to remote solar PV plants will be provided by others. Bidder is responsible for communications infrastructure.</li> </ul> <p>According to Plant 1S2E Section 6 -46, the procurement and installation of PV communication optical cable materials are not included in the scope of this tender. We request confirmation that the procurement and installation of PV communication optical cables for both islands are entirely excluded from the tender scope.</p> <p>This bidding project is only responsible for reserving the communication interfaces as required by the Bidding Document, and connecting the existing diesel generators and newly-built energy storage equipment to the new SCADA system via optical fiber.</p>	
16		<p>Questions Regarding Weather Data Report Generation</p> <p><b>3.4.4.2 Report Generation</b></p> <p>Automatic and configurable generation of typical reports (total or data, problems, efficiency analysis, weather reporting etc.) shall with the help of formatted data output and provisioning of correspond filters for e.g., MS Excel or similar. It shall be possible to print format of the logs and reports shall be subject to the approval of be generated locally in each island as well as in Central SCADA.</p>	<p>Weather data will be provided by the PV power plant.</p> <p>Location of councils are as follows.  Dhidhoo council:  6°53'07.0"N 73°06'52.3"E  Nilandhoo council:  3°03'30.6"N 72°53'26.0"E</p> <p>Supply and installation of fiber optic cable between the</p>

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		<p>"According to Plant 1S2E Section 6 ( Page54, 3.4.4.2), the SCADA system is required to generate weather reports. We request confirmation on the following:</p> <p>① Will the weather data be provided by the existing weather station of the PV power plant?</p> <p>② If not, will the weather data be collected by a new weather station to be constructed under this project?"</p> <p>Questions Regarding the Fiber Optic Cable Leading to the Council</p> <p><i>3.4.6.2 Additional communication cable</i></p> <p>There shall be an additional fibre optic cable installed between the council of each island. In the powerhouse the cable shall be routed to the EMS will be installed. It shall be connected to the FOC network of council the cable shall be routed into a room that is selected from the spare cable of 20 meters shall be left.</p> <p>"According to Plant 1S2E Section 6 (55,Page 3.4.6.2), the construction of a fiber optic communication line from POWERHOUSE to the council is required. We request confirmation on:</p> <p>① The location of the council;</p> <p>② Whether existing optical cables can be directly utilized for this connection."</p>	<p>Powerhouse and the council shall be the scope of this tender.</p>
17		<p>Questions Regarding Communication Between the New SCADA System and the Male Central SCADA System</p>	<p>Communication network, either wired or wireless, between each council and FENAKA Male where Central SCADA has already been</p>

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		<p>3.4.7 List of Signals to be sent to central SCADA</p> <p>The following data shall be sent from the EMS to the central SCADA in Male.</p>  <p>According to the requirements of the Bidding Document, the new SCADA system is required to transmit the power information of each island to the Male Central SCADA System. Could you please confirm the following:</p> <ol style="list-style-type: none"> <li>① Whether there are any available submarine optical cables in the current situation?</li> <li>② If this project is allowed to use such cables?</li> </ol>	<p>established, and this project is to use the established network.</p> <p>Network within the powerhouse and network between the powerhouse and the council are under the scope of this tender.</p> <p>Network from the council and FENAKA Male where Central SCADA has been installed is out of the scope of this tender.</p>

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		<p>③ Where the optical fiber interface locations are?</p> <p>(1) There are no available optical fibers. Due to distance constraints, public network wireless communication will be adopted. May we ask if public network wireless communication is permitted for this project?</p>															
18		<p><b>L06 and A10 - Island Grid Connection Point and Diesel Generator Location Confirmation</b></p> <p>Dhidhoo is one of the inhabited islands of Haa Alifu Atoll. The general data of shown in the following table:</p> <table border="1"> <thead> <tr> <th>Island code, name</th> <th>A10 Dhidhoo</th> </tr> </thead> <tbody> <tr> <td>Atoll name</td> <td>Haa Alifu</td> </tr> <tr> <td>Utility</td> <td>FENAKA</td> </tr> <tr> <td>GPS coordinates</td> <td>6°53'16.60" N 73°06'49.55" E</td> </tr> <tr> <td>Inhabitants (approx.)</td> <td>4,186</td> </tr> <tr> <td>Harbour type</td> <td>Harbour 395x75x5m</td> </tr> <tr> <td>Powerhouse Location</td> <td>6°53'17.33" N 73°06'47.11" E</td> </tr> </tbody> </table> <p>Table 2-4 : A10 - Island identification and general data</p> 	Island code, name	A10 Dhidhoo	Atoll name	Haa Alifu	Utility	FENAKA	GPS coordinates	6°53'16.60" N 73°06'49.55" E	Inhabitants (approx.)	4,186	Harbour type	Harbour 395x75x5m	Powerhouse Location	6°53'17.33" N 73°06'47.11" E	<p>(1) The grid connection point for the BESS of this tender is inside the powerhouse, red roof building.</p> <p>(2) Diesel generators are located in the powerhouse, red roof building.</p> <p>(3) Query is unclear.</p>
Island code, name	A10 Dhidhoo																
Atoll name	Haa Alifu																
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		<p>if the island and potential locations for PV are next provided</p>  <p><b>ABSURE</b> Accelerating Sustainable System Development using Renewable Energy  Proposed Electrical Network Modifications for Integrating Renewable Energy  <b>ATU OAHU/MOHO ISLAND</b>  For PV</p> <p>DESIGNED BY : AET, AET - OHS  REVISION NO : 02  DATE : 17 MAY 2023  DESIGNER : PMJ  CHECKED : PMJ</p> <p><b>KEY RATINGS</b>  <b>LVWV - EXTENSION</b>  Number : 050V, 48V, 800A, 80A, 80A, 80A  PV PANELS : 4, 2, ACB - 500A  BESS PANELS : 400V, 500A  ACB PANELS : 400V, 500A  <b>WVWV - EXISTING</b>  Number : 80A, 80A, 80A  Inverter - Output : VCB - 800A  Bus Capacity VCB : 800A  <b>BESS : 5000 kWh / 2745 kW</b>  <b>STEP-UP I/F</b>  2, 48V, 110V, 2, 48V, 110V  <b>WVWV I/F Step Boxes AND CABLES:</b>  As per Schedule</p> <p><b>LEGEND:</b>  Electrical Symbols : IEC 60447  - - - - - UG Cables - New  - - - - - UG Cables - Existing  Existing LT Distribution Box (To be retained)</p> <p><b>NOTES:</b>  1. Single Line Diagram Representation  2. UG &amp; ACB - Reference Circles to be shown.  3. Detailed design to be done by Contractor  4. Change and comply with National Specifications</p> 	

#	Reference	Query / Question	Responses / Clarifications / Confirmation / Addendum
		 <p>Based on the provided coordinate positions and the satellite map measurement of the pre-selected energy storage site, the distance from the energy storage station to the grid connection point on A10 Island exceeds 600 meters, which goes beyond the transmission distance limit for 400V voltage. The following investigations are required:</p> <ol style="list-style-type: none"> <li>① Verify if the red-roofed building adjacent to the energy storage station is an existing power station—whether grid connection can be implemented inside this building, or if there are accessible grid connection points near the energy storage station;</li> <li>② Confirm the location of diesel generator units; (Provide engineering quantity support for the fiber optic cable pulling project; )</li> </ol>	

#	Reference	Query / Question	Responses / Clarifications / Confirmation / Addendum
		<p>③ Measure the area of the existing diesel generator control room, or the room within the grid connection point designated for accommodating the new SCADA system—to determine if the SCADA system can be installed there.</p>	
19		<p>Questions Regarding the Requirements for Energy Storage System Inverters</p> <p>3.2.2 Battery Inverters for Flow Battery</p> <ul style="list-style-type: none"> <li>• The battery <u>inverters</u> shall be bidirectional and act as <u>inverter</u> and charger to storage batteries.</li> <li>• For each island, the battery inverters must be able to deliver the required power as stated in Chapter 2.5 in both directions (nominal power).</li> <li>• Minimum conversion efficiency: ≥95% (one way)</li> <li>• It is preferred to have the same size of battery <u>inverters</u> for all islands to be able to have a fast change from the spare part storehouse.</li> <li>• The battery <u>inverters</u> shall 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.</li> <li>• The Bidder shall be available on site for the repair or exchange of parts within 72hours.</li> <li>• The battery <u>inverters</u> shall be equipped with suitable DC-breakers and fuses for the battery strings, they shall both be easily accessible and exchangeable.</li> <li>• The battery <u>inverters</u> DC voltage range needs to fit the battery voltage range, to ensure a full utilisation of the installed battery capacity.</li> <li>• On the AC side, the battery <u>inverter</u> shall be equipped with circuit breakers and <u>disconnectors</u>.</li> <li>• The battery <u>inverters</u> shall have isolation supervision.</li> <li>• The battery <u>inverters</u> shall be connected to a dedicated feeder on the main LV distribution board of the powerhouse.</li> <li>• The battery <u>inverters</u> shall be capable of active/reactive regulation of output power to meet the main power demand of the load in the P/Q operation mode. The maximum response time shall be less than 20 ms (twenty milliseconds) and must act faster than the Diesel generators which has a response time of 20 ms.</li> </ul> <p>According to the technical requirements for flow battery inverters specified in Plant 1S2E Section 6-23 Page, there is</p>	<p>Flow battery inverter is not required to have grid-forming functionality while non-flow battery inverter is required to have grid-forming functionality.</p>

#	Reference	Query / Question	Responses / Clarifications / Confirmation / Addendum
		no mention of supporting grid-forming capability. Does this mean that the flow battery inverter is not required to have grid-forming functionality?	
20	Section 6 – Employer’s Requirements 3.2.1 Flow Battery The electrolyte of the storage battery shall be vanadium	Can conventional non-liquid lithium batteries be used as a substitute of vanadium battery? According to the advices, the vanadium battery is much more expensive than lithium battery and performance of vanadium batteries is inferior to that of lithium batteries.	The electrolyte of the flow battery shall be vanadium.
21	Section 3 - Evaluation and Qualification Criteria 13.4 Functional Guarantees of the Facilities	As shown in the screenshot, We have two questions. 1)First, We request not to adjust the bid price using this methodology. 2) Is this a right formula. I believe it should be $yf/20$ instead of $20/yf$ .	1) The evaluation criteria will not be changed. 2) The formula is correct. In this tender, the lower bid price is more competitive. Suppose that two bidders propose the same bid price ( $P_B$ ) with different flow battery lifecycles, for example, 20 years by bidder A, and 15 years by bidder B. The adjusted bid price ( $P$ ) of bidder A is lower than that of bidder B.
22	Section 6 - Employer’s Requirements 1.2 Scope of work Energy Management System capable of integrating and synchronising the existing Diesel Generators and it must be compatible with the central SCADA to exchange live data.	Please provide information of existing PV system, Diesel Generation system and Central SCADA, including parameters, drawings and model of relevant devices. Please tell us the distance between existing devices and new devices to be installed.	Diesel generators are located in the powerhouse, whose location is mentioned in the bidding document, Section 6 - Employer’s Requirements.  Central SCADA is located at FENAKA Male, whose coordinates are

#	Reference	Query / Question	Responses / Clarifications / Confirmation / Addendum
			<p>4°10'21.0"N 73°30'16.9"E.</p> <p>For security reasons, the other information is not provided at the bidding stage.</p>
23	Section 1. ITB_11.1	<p><b>Bid Submission Procedure:</b> Please confirm the method of bid submission — whether the complete bid documents should be submitted electronically via the MoF e-tender portal, or if physical (hard copy) submission is required.</p>	See “D. Submission and Opening of Bids” of Section 2 BDS, mentioning “Bidders shall submit their Bids by mail or by hand”, not electronically.
24	Section 1. ITB_7.1	Please confirm the official deadline for submitting clarification questions, and whether bidders may continue to send additional clarification emails to the designated contact address up to that deadline	See Section 1 ITB 7.1 mentioning “The Employer will respond to any request for clarification, provided that such request is received no later than 21 days prior to the deadline for submission of bids. “
25	Section 3. EQC_2.4.1	<p><b>Definition of “similar contracts”:</b> Could you please clarify the definition of “similar contracts” as stated in the qualification criteria?</p>	<p>The similarity of the Bidder’s participation shall be based on:</p> <ol style="list-style-type: none"> <li>1. Physical Size of work</li> <li>2. Nature of Work</li> <li>3. Complexity of work</li> <li>4. Methods</li> <li>5. Technology or other characteristics as described in Section</li> <li>6 (Employer`s Requirements).</li> </ol>
26	Section 3.	<p><b>Evaluation Criteria:</b> Could you please provide the evaluation weighting or scoring</p>	See “1 Evaluation” in Section 3 EQC.

#	Reference	Query / Question	Responses / Clarifications / Confirmation / Addendum
		methodology (technical vs. financial ratio, and sub-criteria for technical evaluation)?	
27	Section 6. TS_3.2.1	DC Round-Trip Efficiency(RTE) 80% (flow battery) Does not specify the RTE parameters. Please clarify if the efficiency is including or without the BOP. (i.g) auxiliary consumption (AUX) such as pumps, and control systems. Or can the supplier present the conditions fitting the 80%?	The efficiency does not include the BOP.
28	Section 6. TS_3.2.1	Test Report Submission Timing: Could you clarify when the factory test reports and type test certificates are expected to be submitted — at the bidding stage or after contract award (during FAT/SAT)?	Type test certificates shall be submitted at the bidding stage with the Technical Bid.  Factory test reports / FAT reports are expected to be submitted after the award (as part of post-award design / FAT/SAT deliverables).
29	Section 6. TS_3.2.2	PCS Certification and Functional Requirements: Kindly specify the certification standards (e.g., IEC, UL) and any particular grid-support (excluding grid-forming) functionalities required for the PCS (Power Conversion System).	Under the ASSURE framework, we categorize renewable energy projects into three types: Type A, Type B, and Type C. This tender applies to Type C. See 2.3 of Section 6, Employer's Requirements. The inverter or PCS shall satisfy the requirements of Type C.
30	Section 6.	Please clarify whether there are any specific national regulations or restrictions regarding chemicals contained in the battery electrolyte such as vanadium for flow batteries (e.g., import, transport, or onsite handling under Maldives EPA or chemical safety rules).	Bidders are responsible for ensuring full compliance with all applicable Maldives laws and regulations (including those administered by Maldives EPA,

#	Reference	Query / Question	Responses / Clarifications / Confirmation / Addendum
			Customs, maritime/aviation authorities, and other competent authorities) and with applicable international transport and handling requirements when importing, transporting, storing, and handling electrolyte.
31	Section 6.	<p>Please clarify to what extent End-of-Life (EoL) plan is required and to what extent it should be included in the proposal – e.g., whether the Employer expects a plan for electrolyte recovery, reuse, recycling, or system decommissioning after its service life?</p> <p>Is it an important evaluation criteria?</p>	<p>The Bidder shall submit an End-of-Life (EoL) plan covering electrolyte recovery/reuse/recycling and system decommissioning as part of the Hazardous Material Management Plan / Emergency Response Plan / decommissioning and disposal plan required in Section 6 (Employer’s Requirements). The Bidder shall also provide the manufacturer’s recycling certificate / written commitment to receive and recycle batteries at end of life, as required in Section 6 and Section 3 (Evaluation and Qualification Criteria).</p>
32	<p>Section 2 - BDS ITB 24.1 The deadline for bid submission is Date: 2nd December 2025 Time: 11:00 hours Maldivian time</p>	<p>Due to unforeseen complexities we have prolonged the process for preparing the tender beyond our initial expectation. We respectfully request a one-month extension of the current deadline (from 2nd December 2025 to 2nd January 2026).</p>	<p>The closing date is to be extended one month to 8<sup>th</sup> January 2026. Kindly refer to Addendum 3.</p>

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33	INVITATION FOR BIDS 6 - Bid Document Procurement <i>“or by electronic transfer to a designated bank account, information of which can be requested through email to above given email addresses, and;”</i>	Please share the designated bank account for payment transfer purpose.	Please email us at the address provided in the Invitation and we will be providing you with the details.
34	Section 2 - Bid Data Sheet D. Submission and Opening of Bids ITB 24.1 - <i>“The deadline for bid submission is 2nd December 2025”</i>	Considering the bid security issuing and full set proposal preparation, kindly please extend the deadline for 1 month for the better planning of the project.	The closing date is to be extended one month to 8 <sup>th</sup> January 2026. Kindly refer to Addendum 3.
35	Section 3 - Evaluation and Qualification Criteria 1.3 Economic Evaluation 1.3.4 Functional Guarantees of the Facilities - <i>"Cell stack of the storage battery shall be UL1973-certified or compliant with UL1973."</i>	1. Kindly please explain if the bidder need to submit the UL certification in the tender stage to prove compliance with UL 1973? 2. UL1973 is a North American safety standard for batteries safety and reliability, any other alternative battery safety and reliability standards accepted? like China's GB 36276 or GB 44240 etc.	1. Yes 2. Basically, at least, the cell stack for the flow BESS shall be UL1973-certified or compliant with UL1973.
36	Section 3 - Evaluation and Qualification Criteria 1.3 Economic Evaluation 1.3.4 Functional Guarantees of the Facilities - <i>"The storage battery shall be compliant with Annex B (Safety Requirements for Stacks) of IEC62932-2-2 (Flow Battery Energy Systems for Stationary Applications - Part 2-2: Safety Requirements). The bidder shall submit past implementation results as evidence."</i>	Similar to the previous point, Stack's current safety specifications are designed in accordance with China's GB standards and have already demonstrated proven operational data. If the alternative China's safety standards accepted at current stage?	Basically, please follow the bidding document. Propose that the other standard is acceptable, but will be evaluated to a certain degree of deviation.
37	Section 3 - Evaluation and Qualification Criteria	Participation as a subcontractor, participating in the same project in stages and signing 2 contracts with the owner, the	Each contract amount shall exceed USD 5 million. The amount

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	2.4 Bidder's Experience 2.4.1 Contracts of Similar Size and Nature - <i>"Participation as a contractor, Joint Venture partner, or Subcontractor, in at least two contracts that have been satisfactorily and substantially completed within the last 5 years and that are similar to the proposed contract, where the value of the Bidder's participation under each contract exceeds USD 5,000,000"</i>	cumulative supply value of flow batteries is 5 million US dollars. Does it meet the requirements?	cumulatively exceeding USD 5 million is not qualified.																				
38	Section 4 - BDF Form Data Sheet Flow Battery - Item No.2.4 <table border="1"> <thead> <tr> <th>2</th> <th>Electrical</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>2.1</td> <td>Usable capacity @ nominal discharge output</td> <td>kWh</td> <td>≥ 2,000</td> </tr> <tr> <td>2.2</td> <td>Nominal discharge output</td> <td>kW</td> <td>≥ 500</td> </tr> <tr> <td>2.3</td> <td>Self-discharge</td> <td>%/time</td> <td></td> </tr> <tr> <td>2.4</td> <td>Cycle efficiency (DC round trip)</td> <td>%</td> <td>≥85</td> </tr> </tbody> </table>	2	Electrical			2.1	Usable capacity @ nominal discharge output	kWh	≥ 2,000	2.2	Nominal discharge output	kW	≥ 500	2.3	Self-discharge	%/time		2.4	Cycle efficiency (DC round trip)	%	≥85	Requirement stated in Item 2.4 is not same as it stated in 3.2.1 Flow Battery of Section 6 - Employer's Requirements (The measured DC round trip efficiency: $\geq 80\%$ ). Which one should we follow?	Please regard as follows.  DC roundtrip efficiency of flow BESS shall be $\geq 80\%$ .  DC roundtrip efficiency of non-flow BESS shall be $\geq 85\%$ .
2	Electrical																						
2.1	Usable capacity @ nominal discharge output	kWh	≥ 2,000																				
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2.4	Cycle efficiency (DC round trip)	%	≥85																				
39	Section 6 - Employer's Requirements 3.2.3 No-flow Battery  • <b>Recycling certificate:</b> when the non-flow battery enter in a recycling program from the Manufacture will be carried by the Employer. The Bidder shall Manufacturer agrees to receive and recycle the applicable standards. <sup>←1</sup>	If we submit a statement of commitment to receive and recycle the batteries according to the international applicable standards after the batteries achieve its end of life, is it sufficient?	This is acceptable.																				

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45	<table border="1"> <thead> <tr> <th>No.</th> <th>Communication Link</th> <th>Communication Type</th> <th>Distance to be Confirmed</th> <th>Standard Limit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>EMS to Lithium Battery System &amp; PCS</td> <td>Ethernet (CAT6)</td> <td>Exceeds 100 m or not</td> <td>≤100 m</td> </tr> <tr> <td>2</td> <td>EMS to Vanadium Flow Battery System &amp; PCS</td> <td>Ethernet (CAT6)</td> <td>Exceeds 100 m or not</td> <td>≤100 m</td> </tr> <tr> <td>3</td> <td>EMS to Four Diesel Generator Sets</td> <td>RS-485</td> <td>Total length exceeds 800 m or not</td> <td>≤800 m (total bus length)</td> </tr> </tbody> </table>	No.	Communication Link	Communication Type	Distance to be Confirmed	Standard Limit	1	EMS to Lithium Battery System & PCS	Ethernet (CAT6)	Exceeds 100 m or not	≤100 m	2	EMS to Vanadium Flow Battery System & PCS	Ethernet (CAT6)	Exceeds 100 m or not	≤100 m	3	EMS to Four Diesel Generator Sets	RS-485	Total length exceeds 800 m or not	≤800 m (total bus length)	<p>If any of the actual distances exceed the above limits, we will propose appropriate technical solutions, such as fiber-optic media converters or repeater switches, to ensure stable communication performance and system reliability</p>	<p>The proposal is acceptable.</p>
No.	Communication Link	Communication Type	Distance to be Confirmed	Standard Limit																			
1	EMS to Lithium Battery System & PCS	Ethernet (CAT6)	Exceeds 100 m or not	≤100 m																			
2	EMS to Vanadium Flow Battery System & PCS	Ethernet (CAT6)	Exceeds 100 m or not	≤100 m																			
3	EMS to Four Diesel Generator Sets	RS-485	Total length exceeds 800 m or not	≤800 m (total bus length)																			
44	<p><b>Communication System and Ring Redundancy</b>  The tender requires that the communication system support ring network redundancy. Our EMS system is designed to include a 16-port managed industrial Ethernet switch, which will be connected to the site's existing ring network system.  We kindly request the Employer to confirm:</p> <ol style="list-style-type: none"> <li>1. The brand and model of the existing ring network switches at the site;</li> <li>2. Whether the Employer requires the EMS switch to be of the same brand/model for full compatibility;</li> <li>3. If different brands are acceptable, please specify the supported redundancy protocol (e.g., RSTP, MSTP, ERPS, or vendor-specific protocol) and any particular network management requirements</li> </ol>	<p>If the site's existing ring network uses a proprietary redundancy protocol (e.g., Hirschmann, Moxa, H3C, etc.), the EMS switch should preferably be of the same brand to ensure full compatibility and reliable operation.  Confirmation of the above information will allow us to finalize the proper switch selection.</p>	<p>The contractor shall confirm this at the site survey.</p>																				
43	<p><b>Existing Diesel Generator Parallel Operation</b>  Please confirm whether the existing diesel generator sets are currently operating in parallel mode, i.e., whether they are already equipped with synchronization check and load sharing functions.</p>	<p>If the generator sets are already capable of parallel operation, it indicates that the existing control system includes synchronization, power dispatch, and frequency/voltage coordination logic.  This information is essential for us to determine the interface between the new BESS control (EMS) system and the</p>	<p>The contractor shall confirm this at the site survey.</p>																				

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		existing generator control system, in order to avoid duplication of functions or control conflicts.	