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ދާރިމަގު ، މާލެ، ދިވެހިރާއްޖެ

CLARIFICATION 2

ކްލެރިފިކޭޝަން 2

No: ނަންބަރ	**TES/2024/G-002-R01**	
Project: ޕްރޮޖެކްޓް	**Design, Supply, and Installation of Flow Battery Energy Storage Systems and Energy Management Systems in 2 islands across Maldives - Rebidding**	
Issued Date ތާރީޚް	**17th December, 2025**	
No. of Pages: 06 ސަފްޙާ ނަންބަރ	**Boq: -00** ބ.ބ.ސ	**Drawings: -00** ޑްރޮއިންގ

Please include this Clarification when submitting the bid ބިޑް ހުށަހަޅާއިރު ކްލެރިފިކޭޝަން ހިއްސާކުރަން ވާނެ

- **Answers to the queries are attached with this clarification.**

Name: Fathimath Rishfa Ahmed ނަން	**Signature:** ސޮއި

#	Reference	Query / Question	Responses / Clarifications / Confirmation / Addendum
1	Section 6 - Employer's Requirements 3.1 General Beside all the component specific documentation to be delivered, the Bidder shall also provide at least: •Modification design	1.Primary system circuit: Is it necessary to add a separate grid-connection cabinet as the Point of Common Coupling (PCC)? Are there any quantity requirements? What is the allowable capacity for connection to the feeder cabinet? 2.In considering of connection to the SCADA system, have the communication ports been reserved? Please specify the connection method and communication protocols/standards. 3.If it is necessary to collect data from the owner's existing energy metering meters, what are the communication protocols of the existing meters?	1. A grid connection cabinet will be provided in the powerhouse control room, rated to accommodate the full output of the BESS. 2. Network within the powerhouse, where EMS and BESS are located, and network between the powerhouse and the council are under the scope of this tender. The Contract shall provide the network mentioned above. Communication network, either wired or wireless, between each council and FENAKA Male where Central SCADA has already been established, and this project is to use the established network. So, network from the council and FENAKA Male where Central SCADA has been installed is out of the scope of this tender. 3. It is unclear who "owner" refers to.
2	Employer's Requirement	Please confirm the required backup time.	This query is unclear. Please elaborate on it.

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3	Employer's Requirement	Please clarify whether the 1000 Wh capacity requirement refers to the rated capacity at the time of delivery (BOL – Beginning of Life) or the required capacity at the end of life (EOL – End of Life).	At the time of delivery. See 2.5 "Summary of the characteristics of the BESS to be built" in "Section 6 - Employer's Requirements"
4	Employer's Requirement	The required BESS is absolutely off grid (autonomous system) or on Grid System, please confirm	In a certain duration in daytime, PV (out of the scope of this tender) and the battery, with no diesel generator, shall provide 100% of the load and charges the battery. See 2.3 "Hybrid mini-grid systems and general behaviour" of "Section 6 - Employer's Requirements"

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5	Employer's Requirement	Please also confirm that we need to maintain the EOL capacity as mentioned in the Summery of the Characteristics of the BESS to be built as mentioned below ; no backup is required, please confirm ; 3 MW (*1) During the lifecycle of flow BESS, the following capacity is required. 2,000 kWh at the initial 1,900 kWh as the norm at the end of lifecycle 1,700 kWh as the minimum at the end of lifecycle (*2) During the lifecycle of flow BESS, the following capacity is required. 1,000 kWh at the initial 700 kWh as the norm at the end of lifecycle 600 kWh as the minimum at the end of lifecycle	No additional "backup" energy beyond EOL guarantees is required. What the documents require: The Functional Guarantees (Section 3 / EQC) repeat these values and treat them as guaranteed performance levels. If the functional guarantees meet the Norm, no adjustment to the bid price is applied; if they fall below the Minimum acceptable level the bid may be rejected.

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6		• The bidder shall submit the seismic design document of the electrolyte tank and the battery container. • Environmental condition shall be as follows: • Ambient operating temperature: -5 to +40 degrees Celsius • Operating humidity: 0 to 80 % RH • Enclosure rating: IP54 • Maximum elevation: 1,000 m • Earthquake resistance shall be as follows: • Horizontal: 1.0 G • Vertical: 0.5 G 1、According to the screenshot from Plant 1S2E Section 6-23, Based on our industry expertise and evaluation, these parameters correspond to a seismic resistance level significantly exceeding the standard requirements commonly applied in the energy storage industry. Such a high level (approximately equivalent to Intensity 12 on the seismic scale) is beyond the typical design thresholds for battery containers, and we believe that very few, if any, manufacturers can meet this specification. Furthermore, our technical experts have noted that the Maldives is not located in a seismically active zone, and therefore such extreme seismic resistance may not be necessary for the safe and reliable operation of the containerized energy storage system. Would it be possible for you to reconsider these requirements? We kindly suggest adjusting the seismic resistance parameters to align with common industry standards and the actual geological conditions of the project site. This would help ensure a more competitive and feasible tender process while maintaining the necessary safety and performance levels.	The specification shall be changed as follows: Horizontal: 0.5 G Vertical: 0.3 G Kindly refer to Addendum 04.
7	Employer's Requirement / Schedule of rate and Price Schedule	In Nilandhoo Island Non Flow (Type C) battery and Battery Inverter Requirement is 500 KW and Battery Capacity is requirement 1000 KWH	In Nilandhoo, the load peak is around 1,000 kW and both flow battery and non-

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		whereas in Dhidhoo Non Flow (Type C) battery and Battery Inverter Requirement is 1500 KW and Battery Capacity is requirement 1000 KWH IS it correct or you required both battery and Battery Inverter Requirement 500 KW at each island, please confirm	flow battery in total shall support the load in a certain duration in daytime. So, 500 kW inverter of flow battery and 500 kW non-flow battery are required. On the other hand, in Dhidhoo, the load peak is around 2,000 kW. So, in the same reason, 500 kW inverter of flow battery and **1,500 kW inverter non-flow battery** are required.