



CLARIFICATION 2

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ނަންބަރު No:	TES/2024/G-004	
ފަންޓްޔު Project:	Installation of 15 MWp Grid-tied Solar Photovoltaic System at L. Hithadhoo, L. Kunahandhoo, L. Maabaidhoo, L. Maamendhoo, L. Maavah, L. Isdhoo, L. Kalaidhoo, L. Fonadhoo, L. Gan, L. Dhanbidhoo, Lh. Naifaru, Ga. Villingili and Sh. Funadhoo under Design, Build, Finance, Own, Operate and Transfer (DBFOOT) Basis	
އިއްޔަތު Issued Date:	29 th October 2024	
ސަފުހާގެ އަދަދު No. of Pages: - 04	ބޯޕްލާނުގެ އަދަދު BoQ: -00	ނިޔަންމަތީގެ އަދަދު Drawings: -00

Please include this clarification when submitting the bid. ބަޔާން ފޮނުވާ ފަހަރު މި ބަޔާނު ހިމާނުވާން ޖެހޭނެއެވެ.

➤ **Answers to the queries are attached with this Clarification.**

ނަންބަރު Name: Aishath Nadheema	ސަފްޞަފާ Signature:  
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Sl. No.	Reference	Bidder's Clarification	Response
1	-	The powers in the single lines in the project and in the excel where the powers are located are different, which one should be taken as basis?	Refer to Part C - C.1 for the capacity requirement for each Solar PV site. SLD does not indicate the power data of cables. Further the reference for cable sizes and cable lengths should be data room file " <i>Master List and GU plus feeders</i> "
2	-	Should we base our measurements on single lines or on Google Earth? There are multiple connection boxes for each location on single lines and it is unknown whether they exist or not, these boxes are not in Google Earth files. To what extent are we responsible for these boxes? Or are we only responsible for the meters to the distribution boxes shown on Google Earth?	SLD provides the cable run distances for existing and new LV cables and distribution boxes. These will be also applicable for LV cable upgrades needed. LVDB connection boxes (Downstream of transformers) marked on SLD's exist. The LVDB's identified for LV connections are as marked in SLD and also specified in " <i>Master List and GU plus feeders</i> ". There are no multiple connection boxes For each site the connection characteristic is specified: i.e. the type of connection (LV, MV), meter location, and extent of cabling (LV to Distribution, LV feeder to Tx Busbar, LV to DB with shared LV feeder upgrade etc), is defined.
3	-	Can we use weather data such as PVGIS TMY on PVsyst as weather data?	Bidders may use TMY weather data for their own assessment. However, please note the statement on resource data in <i>Employers requirement section B.3.1.</i>
4	-	Are the Power Houses on Google Earth within our scope? Do the feeders on a single line also belong to us?	Power houses are not within scope. Please refer to the site description spreadsheet " <i>Masterlist and GU plus feeders</i> " in data room for details of whether LV feeder upgrades or new LV feeder are within scope for each site.
5	-	A connection from 11kV MV has been requested. Will the MV part of this project be completely within our scope or will it still be within the scope of FENAKA	The scope of MV work depends on the MV connection type and the island, as on some islands MV work is being done by FENAKA, and on other some MV work is needed by the PV developer. For these precise reasons, the details have been specified for each PV site. Please refer to the site description spreadsheet " <i>Masterlist and GU plus feeders</i> " in data room for details of whether MV switchgear and transformer only is required for a particular site, or MV cable as well.
6	-	Is the New Power house busbar board within our scope? Is this board within our scope or are we responsible up to the feeder inputs?	No new powerhouse busbars are required for LV or MV connections. In some cases of connection to an existing substation, a transformer LV busbar upgrade may be required.



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Could you kindly provide the following detailed information for each of the specific islands involved in the project:

Energy Requirements: The exact energy demand (current and forecasted) for each island. This will help us in the proper sizing and design of the PV and battery systems.

Soil Conditions: Information on the soil type and conditions on each island (e.g., sandy, rocky, coral-based), as this is crucial for determining the appropriate foundations and installation approach for the PV systems.

Installation Environment: Details on the available land or roof space, accessibility, and any potential infrastructure challenges (e.g., transport, logistics) that might affect the installation of the solar panels.

Specific PV and Battery Requirements: Are there any particular requirements or considerations for the PV and battery systems on the individual islands (e.g., grid stability needs, existing backup systems, or specific environmental concerns)?

Climatic Data: If available, could you also provide any climate-related information (e.g., historical sunlight data, storm frequency) specific to the islands, which could affect the solar PV performance?

We understand that some of this data may already be available or documented in further project materials, so any reports, studies, or assessments you could share would be extremely helpful.

Thank you in advance for your assistance with this. We are looking forward to your response and appreciate your continued support in this project.

Energy Requirements: bidders are NOT required to calculate PV/battery systems, nor provide batteries. Bidders must design PV plant up to the maximum stated DC and AC capacities in *Part C table 6*, from which a maximum kWh/annum will be purchased by the offtaker for each island, as stated in the same table.

Soil conditions: bidders shall conduct own due diligence. It can be stated that all islands are coral atolls with shallow sand surface. However, sites located close to reclaimed land may encounter rock-filled gabian breakwaters. In general appropriately sized screw-pile foundations have proven to be workable. However, this is for bidders due diligence.

Installation environment: bidders should visit islands to assess major infrastructure available. Additionally bidder may seek recent satellite imagery to supplement the process. In general all islands have functional harbours and small cranes & lifts.

Specific PV and Battery Requirements: the bidder is NOT required to provide batteries for network stability - BESS will be installed under a separate works contract. The bidder is responsible to provide PV inverters and interface as per *Part D Solar Farm Connection Requirements*, to ensure that the PV plant can provide dynamic network support, AND respond to commands from the island's EMS.

Climatic data: Data Room (ref *Employers Requirements B.2.1*), includes nearby airport met data. *B.3.1* refer to Maldives solar data. Bidders should also refer to historical data from sources such as *Solcast.com*. Environmental withstand conditions are on *B.3.3*. Bidders required to conduct their own due diligence.



8	-	<p>would like to request clarification regarding the project capacity in the ongoing tender process. While the project capacity is stated as 15 MWp in the tender documents, the total capacity is listed as 17.835 MWp in the "Masterlist and GU plus feeders" Excel document.</p> <p>Could you please confirm which figure we should base our work on? Since there is little time left until the tender deadline, we kindly ask you to clarify this matter as soon as possible. Clarification on this will help us complete our project preparations accurately.</p> <p>You also require a fixed energy requirement for the first year as indicated in the table below. This will vary accordingly.</p>	<p>Bidder to note that 15 MWp as mentioned in the tender documents is the minimum DC capacity (for both Lots together) to be met. Bidders are required to design their system such that the minimum MWp DC capacity is greater than 2 MWp for Lot 1 and 13 MWp for Lot 2, while ensuring adherence with the energy requirement for the first year for each island and other constraints such as space, etc.</p> <p>On the other hand, the total available capacity of 17.835 MWp is based on helioscope assessments of each site considering the available space. For the purposes of system design, Bidders may choose to design the system above the minimum required DC capacity of 15 MWp.</p> <p>Energy Requirement for the First Year is already indicated in the RFB for each island. Such energy requirement is based on the existing load constraints of these islands. While bidders have the option to optimize the AC / DC capacity at site level to meet the stated energy requirement for the island, the load bearing capacity of the island may increase during the course of PPA period which may accommodate additional generation if any.</p>
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