



CLARIFICATION 2

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ނަންބަރު No:	TES/2021/G-013-R01	
ޕްރޮޖެކްޓްގެ ނަންބަރު Project:	Design, Build and Supply of Solar Powered-Battery Operated GRP Made Catamaran Type Passenger Ferry including Support for Operation, Maintenance and Training - Retender	
އިޝްޔަތް Issued Date	21 <sup>st</sup> December 2021	
ސަފުހާގެ އަދަދު No. of Pages: -04	ބޯޕްގެ އަދަދު Boq: -00	ޑްރޯޕިންގ Drawings: -00

Please include this clarification when submitting the bid

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- Please find attached, answers to the queries received.

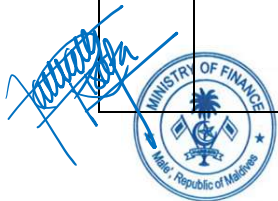


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Name: Fathimath Rishfa Ahmed

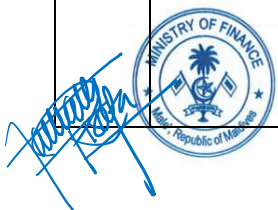
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Signature:

## CLARIFICATION 2

#	Document Name	Document Reference	Query	Response
1			<p>Vessel capacity is 75 pax. Can you please find me a requirement for the accommodation capacity?</p> <p>A. Spacing between seat rows (back-to-back)</p> <p>B. Width of seats</p> <p>C. Number of passengers per m2</p>	<p>Seating arrangement will be provided for minimum 75 passengers and 3 crew members. The dimensions, quality and leg room of the seating arrangement will ensure a comfortable ride to the passengers. The seating will be of cushion type equipped with life jacket holders. Size of the Ferry: 20m (L) x 7 m (W)</p>
2			<p>The vessel will be registered with statutory authority. What rules are applied?</p> <p>Croatian Register of Shipping is member of IACS.</p>	<p>The vessel will be registered with statutory authorities. The vessel will meet the requirements of the statutory authorities' rules and amendments thereon and should be built under the leading International Association of Classification Societies (IACS) class (IRS/DNV/ABS/LR/NK/BV)</p>
3			<p>With requirement of 25 kWp for solar power, where 200kWp/m2 is considered as high-efficiency panel, we would need rooftop of 125 m2?</p> <p>A. 15x8,3=125m2</p> <p>B. 17x7,3=125m2</p> <p>If this could be corrected to the requirement of 9 kWp, is ideal. What's the correct size of the catamaran to install solar panels? please clarify?</p>	<p>Size of the Ferry: 20m (L) x 7 m (W)</p>
4			<p>“Battery enclosure must be made of stainless steel with ingress protection IP56 or above, with a forced ventilation system. Battery ventilation should be designed for an ambient temperature of 35oC in shaded conditions. Forced ventilation of the battery box must be independent of the forced ventilation of the battery room and be isolated from each other.”</p>	<p>It will be a box made of stainless steel with ingress protection IP56 or above, equipped with a forced ventilation system</p>



			I don't understand if this is completely sealed stainless steel box, or is just open stainless-steel box? please clarify?	
5			Fast charging will kill LiFePO4 batteries. For that purpose, we would need NMC batteries. Then again, it is mentioned that batteries will be charged with 1C (one-hour recharging time). please clarify?	Marine grade Lithium-iron phosphate batteries with type approval from any of the following classification societies IRS/DNV GL/ABS/LR/NK/BV will be provided as the energy storage medium. Batteries will be certified in accordance to IEC standard 62133-2: 2017 and or UL1642. Batteries must have warranty for a "cycle life" of minimum 6000 cycles at 80% depth of discharge at 1C/1C at 25oC. Actual charging of batteries will be as per the solar power plant charging current and/ or 20kW, 380-400V fast charger.
6			What's is the Subdivision? A. Aft peak, B. Engine room, C. Battery compartment, D. Additional compartment 1 E. Fore peak I don't think we need aft peak compartment. This is not long vessel, and anyhow compartments are defined by the Classification Rules?	The subdivision will comply with statutory/class requirements and will be designed to meet the satisfaction of the registering authority. All subdivision bulkheads will be water tight and stiffened vertically with spacing conforming to classification society rules. All opening in decks/bulkheads shall have rounded corners complying with classification society requirements. Continuity of structural members shall be maintained.
7			The wheel house will be provided with the following furniture and equipment? Why and engine room is required for sully solar powered catamaran? A. Helmsman's revolving chair - 1 no. B. Cupboard - 1 no. C. Steering wheel & accessories - 1 set D. Remote control for propulsion motors E. Maneuvering Desk with navigational console - 1 no. F. Engine Room G. Electric horn – 1 no. H. Switches and console for	Engine room will house the electric motors



			<p>Navigational Lights, search light - 1 set  I. Echo Sounder – 1 no.  J. GPS – 1 no.  K. Console and instrumentation for Solar Charge Controller.  This Engine Room is probably some mistake.</p>	
8			<p>The tests shall be carried out after completion of the hull and before painting” Please clarify?  “Paint performance, including but not limited to anti-fouling performance, shall be fully warranted by the bidder.”</p> <p>I don't think this is necessary since we have gelcoat and not painting. please clarify?</p>	In case of coating please read "before coating"
9			<p>Cathodic Protection should be on metal parts but not on the hull since the hull is made of GRP. please clarify?</p>	Only metal parts to be protected
10			<p>It seems this specification is based for specific Solar catamaran in the market. Could you please give us general requirements, instead of specific target solar catamaran?</p>	<p>This is a general specification. Specified for specific requirement. For more details, please see Section 6: Schedule of Supply.  3. Technical Specification.</p>
11			<p>Please send a English translation of the guideline and certification and ship building code of Maldives? Does it meet EUROPEAN STANDARD?</p>	English Translation is not available.
12			<p>We request you to extend the tender submission date by 4 weeks to ensure enough time for preparing the tender documents as per your requirement and to make our best competitive offer.</p>	Note that extension cannot be provided.

