



# **INFORMATION SHEET FOR PROCUREMENT OF REMOTE RADIATOR**

**Reference No: FNK-I/IUL/2023/078**

Issued on: 21<sup>st</sup> March 2023

Issued by:

Fenaka Corporation Limited

Male', Republic of Maldives

## Section I: Instruction to Bidders

| A. General                      |  |
|---------------------------------|--|
| <b>1. Scope of Bid</b>          | 1.1 Fenaka Corporation Limited requests quotations for remote radiator in accordance with <i>Section III, Technical Specifications</i>   |
|                                 | 1.2 It is in Fenaka Corporation Limited's discretion to cancel this bid invitation at any time.  |
| <b>2. Eligible Participants</b> | 2.1 Local companies registered in Maldives are eligible to participate in the tender   |
|                                 | 2.2 Foreign companies are eligible to participate in the tender only if the total bid value is above 2,500,000 Maldivian Rufiyaa.  |
| B. Preparation of the Bid       |  |
| <b>3. Bid Prices</b>            | 3.1 The unit price of each item and the total price shall be clearly indicated in the quotation  |
|                                 | 3.2 All items shall be quoted in the bid (please refer to <i>Section III, Technical Specifications</i> for the details of required items)  |
|                                 | 3.3 Quotation shall separately indicate the additional charges such as freight charges, insurance, etc. GST for mentioned charges should be omitted in grand total.  |
|                                 | 3.4 The bidder shall submit quotation on CIF basis to Male' port   |
| <b>4. Currency</b>              | 4.1 The bidder shall quote entirely in Maldivian Rufiyaa   |
| <b>5. Alternative Bids</b>      | 5.1 Bidders can submit a maximum of two (2) options  |
| <b>6. Validity of Bids</b>      | 6.1 Quotation shall remain valid for minimum sixty (60) days from the date of bid opening  |
| <b>7. Bid Security</b>          | 7.1 All bids should be accompanied with a bid security of USD 1,000 (One Thousand US Dollars) or its equivalent in Maldivian Rufiyaa   |
|                                 | 7.2 The bid security should be: <ul style="list-style-type: none"> <li>- Original bank guarantee letter (or)</li> <li>- Bank guaranteed and stamped check (or)</li> <li>- An insurance policy from Maldives Monetary Authority (MMA) registered insurance company</li> </ul> |

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|  | 7.3  | Any bid not accompanied by a Bid Security shall be rejected during bid opening  |
|  | 7.4  | The bid security must be valid for a minimum of twenty (20) additional days beyond the validity of quotation  |
| <b>8. Technical Compliance</b>         | 8.1  | All relevant information including the brand shall be given to enable technical evaluation of quoted items  |
|  | 8.2  | If the manufacturer or assembler is not the same as the bidder, a document indicating that manufacturer or assembler is willing to sell the item to the bidder is required  |
|  | 8.3  | Manufacturer's Authorization letter will be required to enable technical evaluation   |
|  | 8.4  | If the goods do not comply with the requirements mentioned in <i>Section III, Technical Specifications</i> , the bid will be rejected during evaluation.  |
| <b>9. Documents Comprising the Bid</b> | 9.1  | Quotation (inclusive of the delivery period and payment terms)  |
|  | 9.2  | Manufacturer's data sheet and Specifications of the offered product   |
|  | 9.3  | Engineering drawing of the offered product(s)   |
|  | 9.4  | Details of the company <ul style="list-style-type: none"> <li>- Company profile/background</li> <li>- Company registration certificate</li> <li>- GST registration certificate (for local bidders only)</li> <li>- TAX clearance report (6 months validity)</li> <li>- Contact details (name, designation, mobile number and e-mail address)</li> </ul> |
|  | 9.5  | Experience letters, if available <ul style="list-style-type: none"> <li>- Letters within past five (5) years</li> <li>- Relevant experience letters</li> <li>- Letters with project name and value</li> </ul>   |
|  | 9.6  | One (1) compact disc with original bid document scanned and written   |
|  | 9.7  | Bids lacking the documents above are subjected to be rejected during the bid opening  |
| <b>10. Format of Bid</b>               | 10.1 | The Bidder shall submit two (2) sets of the bid document (1 original and 1 copy), enclosed separately in two envelopes and sealed with company stamp  |

|   |      |  |
|---|------|--|
|   | 10.2 | All pages of the bid document shall be stamped and bound properly (excluding the bid security)   |
| <b>C. Bid Submission</b>                    |      |  |
| <b>11. Sealing and Marking Bid Document</b> | 11.1 | The bid document shall be sealed properly in an envelope clearly marked 'ORIGINAL' or 'COPY', with the name of the company and the tender reference number (FNK-I/IUL/2023/078)                          |
| <b>12. Bid Opening</b>                      | 12.1 | The bids will be opened on 02 <sup>nd</sup> April 2023 1000hrs in the presence of bidders  |
|   | 12.2 | Bids will be opened at:<br>Fenaka Corporation Limited<br>Hilaalee Magu, K. Male', Republic of Maldives   |
|   | 12.3 | Bids received electronically will not be accepted  |
| <b>13. Bid Rejection</b>                    | 13.1 | Fenaka Corporation Limited shall not consider any bidders that arrive after the deadline for submission  |
|   | 13.2 | Bidders that do not register for the tender are unable to participate in the bid opening   |
|   | 13.3 | Bids lacking the documents mentioned in 9. <i>Documents Comprising the Bid</i> (except 9.5 <i>Experience letters</i> ) and that do not comply with 10. <i>Format of Bid</i> are subjected to be rejected |
| <b>D. Awarding of Contract</b>              |      |  |
| <b>14. Payment Terms</b>                    | 14.1 | An advance payment will not be released for this project.  |
|   | 14.2 | Proposed payment terms should not be tied with submission of Bill of Lading.   |
| <b>15. Factory Acceptance Testing</b>       | 15.1 | The Radiator(s) shall be fully tested at the manufacturer workshop in the presence of Client's appointees.   |
|   | 15.2 | The testing shall be conducted at internationally accepted testing standards   |
|   | 15.3 | The radiators(s) shall undergo protection testing and operation testing  |
|   | 15.4 | All the protections should work properly, it should be examined for oil and coolant leaks, and it should be visually tested and secured  |
|   | 15.5 | The <b>remote radiator</b> should operate continuously 100% in a 50-degree ambient temperature.  |

- It should be designed with vertical air discharge remote radiator with motor and fan
  - It should include all the generator connection pipes, accessories, joints and diagrams
  - The radiator should be developed remotely from the engine providing an added flexibility cooling system, and to be installed at the desired location
  - It should be designed with lower power consumption, and high efficiency aero foil designed fans are used
  - It must be designed with lower noise levels
  - The radiator core should be formed using high efficiency fin profile
  - 15.6 - The thickness of connection pipes must be in a range of 2mm to 4mm
- Two (2) engineers from Fenaka Corporation Limited shall carry out necessary inspection and testing of equipment prior to shipment in supplier's warehouse to validate the items

## Section II: Evaluation Criteria

**Proposal Cost:** 60 points for the lowest price

- $(\text{Lowest price} / \text{proposed price}) \times 60$

**Delivery:** 30 points for the lowest delivery period

- $(\text{Lowest delivery period} / \text{proposed delivery period}) \times 30$
- If the delivery period indicates 'ex-stock', it shall be taken same as the party offering the longest delivery period.

**Credit Period:** 10 points for the maximum credit period

- $(\text{Proposed credit period} / \text{longest credit period}) \times 10$

**Note:** Any discrepancy in technical details specified in quotation with technical specification document, the specification shall prevail.

## Section III: Technical Specifications

| Description             | Quantity |
|-------------------------|----------|
| Remote Radiator (800kW) | 01       |

\*Please note that the below specifications are for one unit only

### TECHNICAL SPECIFICATIONS OF REMOTE RADIATOR

The cooling equipment consisting W type radiator with heavy-duty structure, suitable for tropical weather, and equipped with vertical air flow fans driven by electric motor .Standard IP55 or IP65 (10 HP) (ABB or equivalent).

Cooling circuit and pipe line should be designed for two separate circuits for jacket water and after cooler water of the engine. Primary FCW-120(LT+HT) Secondary FCW-120.

All installation accessories must be BS standard and include seamless pipes, gauges, gate valves, flanges, bolts elbows and expansion tank.

The radiator must be designed and sized to adequately cool CUMMINS KTA50-G3 engine and meet below specs.

|                                 |                      |
|---------------------------------|----------------------|
| Cores                           | Tin Coated           |
| Motor controller                | Automatic            |
| Low Coolant Level Protection    | Engine Shutdown      |
| Air Flow                        | Vertical             |
| Ambient Temperature             | 50C                  |
| Inlet Coolant Temperature       | 90C                  |
| Outlet Coolant Temperature      | 84C                  |
| Heat Rejection                  | 676 kW               |
| Maximum Coolant Friction Head   | 69 kPa               |
| Maximum Static Head             | 18.3m                |
| Electric Motor                  | 3ph, 400V, 5.6kW     |
| Motor Starter                   | Soft Starter         |
| Motor Protection                | IP 54                |
| Insulation                      | Class F              |
| No. of Fans                     | 2                    |
| Noise Level                     | 75dB (A) @ 7m        |
| Overall Dimensions (L x W x H), | 4155 x 2030 x 2520mm |

Cooling water pipe line should be designed to install at 6m distance from the engine.

