



## REQUEST FOR QUOTATION (RFQ)

### Supply and Installation of 1 x Generator for Fiji Police Force

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| RFQ Reference: RFQ/FJI/005/2021 | Date: 18 July 2021 |
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### SECTION 1: REQUEST FOR QUOTATION (RFQ)

UNDP kindly requests your quotation for the provision of goods, works and/or services as detailed in Annex 1 of this RFQ.

This Request for Quotation comprises the following documents:

Section 1: This request letter

Section 2: RFQ Instructions and Data

Annex 1: Schedule of Requirements

Annex 2: Quotation Submission Form

Annex 3: Technical and Financial Offer

When preparing your quotation, please be guided by the RFQ Instructions and Data. Please note that quotations must be submitted using Annex 2: Quotation Submission Form and Annex 3 Technical and Financial Offer, by the method and by the date and time indicated in Section 2. It is your responsibility to ensure that your quotation is submitted on or before the deadline. Quotations received after the submission deadline, for whatever reason, will not be considered for evaluation.

Thank you and we look forward to receiving your quotations.

Issued by:

Signature: Ronald Kumar

Name: Ronald Kumar

Title: Procurement & Travel Services Analyst

Date: 18-Jul-2021

**SECTION 2: RFQ INSTRUCTIONS AND DATA**

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| <b>Introduction</b>                             | <p>Bidders shall adhere to all the requirements of this RFQ, including any amendments made in writing by UNDP. This RFQ is conducted in accordance with the <a href="#">UNDP Programme and Operations Policies and Procedures (POPP) on Contracts and Procurement</a></p> <p>Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of the Bid by UNDP. UNDP is under no obligation to award a contract to any Bidder as a result of this RFQ.</p> <p>UNDP reserves the right to cancel the procurement process at any stage without any liability of any kind for UNDP, upon notice to the bidders or publication of cancellation notice on UNDP website.</p>   |
| <b>Deadline for the Submission of Quotation</b> | <p><b>2 August 2021</b></p> <p>As indicated in eTendering system. Note that system time zone is in EST/EDT (New York) time zone.</p> <p><b>Note:</b></p> <p><b>Date and time visible on the main screen of the event (on eTendering portal) will be final and prevail over any other closing time indicated elsewhere, in case they are different. is the responsibility of the bidder to make sure proposals are submitted before the deadline. UNDP will not accept any proposal that is not submitted directly in the system.</b></p> <p><b>Bidders must avoid submitting bid at the last minute or on the day of the deadline as UNDP may not be able to assist in a timely manner should there be any technical issues as it may take some time to resolve. Therefore, UNDP won't be responsible for non-submission of bid by the bidders as sufficient time was provided to all bidders to submit before the deadline.</b></p>   |
| <b>Method of Submission</b>                     | <p>Quotations must be submitted as follows:</p> <p><input checked="" type="checkbox"/> E-tendering</p> <p><input type="checkbox"/> Dedicated Email Address</p> <p><input type="checkbox"/> Courier / Hand delivery</p> <p><input type="checkbox"/> Other <a href="#">Click or tap here to enter text.</a></p> <p>Bid submission address: Etendering (BU Code: FJI10, Event ID: 0000009800)</p> <ul style="list-style-type: none"> <li>▪ File Format: PDF</li> <li>▪ File names must be maximum 60 characters long and must not contain any letter or special character other than from Latin alphabet/keyboard.</li> <li>▪ All files must be free of viruses and not corrupted.</li> <li>▪ It is recommended that the entire Quotation be consolidated into as few attachments as possible.</li> </ul> <p>[For eTendering method, click the link <a href="https://etendering.partneragencies.org">https://etendering.partneragencies.org</a> and insert Event ID information]</p> <p><b>BU Code: FJI10, Event ID: 0000009800</b></p> <p>Detailed instructions on how to submit, modify or cancel a bid in the eTendering system are provided in the eTendering system Bidder User Guide and Instructional videos available on this link: <a href="http://www.undp.org/content/undp/en/home/operations/procurement/business/procurement-notices/resources/">http://www.undp.org/content/undp/en/home/operations/procurement/business/procurement-notices/resources/</a></p> |
| <b>Cost of preparation of quotation</b>         | <p>UNDP shall not be responsible for any costs associated with a Supplier's preparation and submission of a quotation, regardless of the outcome or the manner of conducting the selection process.</p>  |

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| <b>Supplier Code of Conduct, Fraud, Corruption,</b> | <p>All prospective suppliers must read the United Nations Supplier Code of Conduct and acknowledge that it provides the minimum standards expected of suppliers to the UN. The Code of Conduct, which includes <b>principles on labour, human rights, environment and ethical conduct</b> may be found at: <a href="https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct">https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct</a></p> <p>Moreover, UNDP strictly enforces a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical or unprofessional practices, and obstruction of UNDP vendors and requires all bidders/vendors to observe the highest standard of ethics during the procurement process and contract implementation. UNDP's Anti-Fraud Policy can be found at <a href="http://www.undp.org/content/undp/en/home/operations/accountability/audit/office_of_audit_an_dinvestigation.html#anti">http://www.undp.org/content/undp/en/home/operations/accountability/audit/office_of_audit_an_dinvestigation.html#anti</a></p>   |
| <b>Gifts and Hospitality</b>                        | <p>Bidders/vendors shall not offer gifts or hospitality of any kind to UNDP staff members including recreational trips to sporting or cultural events, theme parks or offers of holidays, transportation, or invitations to extravagant lunches, dinners or similar. In pursuance of this policy, UNDP: (a) Shall reject a bid if it determines that the selected bidder has engaged in any corrupt or fraudulent practices in competing for the contract in question; (b) Shall declare a vendor ineligible, either indefinitely or for a stated period, to be awarded a contract if at any time it determines that the vendor has engaged in any corrupt or fraudulent practices in competing for, or in executing a UNDP contract.</p>   |
| <b>Conflict of Interest</b>                         | <p>UNDP requires every prospective Supplier to avoid and prevent conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, specifications, cost estimates, and other information used in this RFQ. Bidders shall strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. Bidders found to have a conflict of interest shall be disqualified.</p> <p>Bidders must disclose in their Bid their knowledge of the following: a) If the owners, part-owners, officers, directors, controlling shareholders, of the bidding entity or key personnel who are family members of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving goods and/or services under this RFQ.</p> <p>The eligibility of Bidders that are wholly or partly owned by the Government shall be subject to UNDP's further evaluation and review of various factors such as being registered, operated and managed as an independent business entity, the extent of Government ownership/share, receipt of subsidies, mandate and access to information in relation to this RFQ, among others. Conditions that may lead to undue advantage against other Bidders may result in the eventual rejection of the Bid.</p> |
| <b>General Conditions of Contract</b>               | <p>Any Purchase Order or contract that will be issued as a result of this RFQ shall be subject to the General Conditions of Contract</p> <p>Select the applicable GTC:</p> <p><input checked="" type="checkbox"/> <a href="#">General Terms and Conditions / Special Conditions for Contract.</a></p> <p><input type="checkbox"/> <a href="#">General Terms and Conditions for de minimis contracts (services only, less than \$50,000)</a></p> <p><input type="checkbox"/> <a href="#">General Terms and Conditions for Works</a></p> <p>Applicable Terms and Conditions and other provisions are available at <a href="#">UNDP/How-we-buy</a></p>   |
| <b>Special Conditions of Contract</b>               | <p><input checked="" type="checkbox"/> Cancellation of PO/Contract if the delivery/completion is delayed by the agreed date on the PO unless prior agreed by UNDP.</p>  |
| <b>Eligibility</b>                                  | <p>A vendor who will be engaged by UNDP may not be suspended, debarred, or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization. Vendors are therefore required to disclose to UNDP whether they are subject to any sanction or temporary suspension imposed by these organizations. Failure to do so may result in termination of any contract or PO subsequently issued to the vendor by UNDP.</p> <p>It is the Bidder's responsibility to ensure that its employees, joint venture members, sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established by UNDP.</p>  |

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|   | Bidders must have the legal capacity to enter a binding contract with UNDP and to deliver in the country, or through an authorized representative.   |
| <b>Currency of Quotation</b>                    | Quotations shall be quoted in <b>USD</b>   |
| <b>Joint Venture, Consortium or Association</b> | If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), Consortium or Association for the Bid, they shall confirm in their Bid that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the JV, Consortium or Association jointly and severally, which shall be evidenced by a duly notarized Agreement among the legal entities, and submitted with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between UNDP and the designated lead entity, who shall be acting for and on behalf of all the member entities comprising the joint venture, Consortium or Association.<br>Refer to Clauses 19 – 24 under <a href="#">Solicitation policy</a> for details on the applicable provisions on Joint Ventures, Consortium or Association.   |
| <b>Only one Bid</b>                             | The Bidder (including the Lead Entity on behalf of the individual members of any Joint Venture, Consortium or Association) shall submit only one Bid, either in its own name or, if a joint venture, Consortium or Association, as the lead entity of such Joint Venture, Consortium or Association.<br>Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following:<br>a) they have at least one controlling partner, director or shareholder in common; or b) any one of them receive or have received any direct or indirect subsidy from the other/s; or<br>c) they have the same legal representative for purposes of this RFQ; or<br>d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about, or influence on the Bid of, another Bidder regarding this RFQ process;<br>e) they are subcontractors to each other's Bid, or a subcontractor to one Bid also submits another Bid under its name as lead Bidder; or<br>f) some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this RFQ process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid. |
| <b>Duties and taxes</b>                         | Article II, Section 7, of the Convention on the Privileges and Immunities provides, inter alia, that the United Nations, including UNDP as a subsidiary organ of the General Assembly of the United Nations, is exempt from all direct taxes, except charges for public utility services, and is exempt from customs restrictions, duties, and charges of a similar nature in respect of articles imported or exported for its official use. All quotations shall be submitted net of any direct taxes and any other taxes and duties, unless otherwise specified below:<br>All prices must:<br><input type="checkbox"/> be inclusive of VAT and other applicable indirect taxes<br><input checked="" type="checkbox"/> be exclusive of VAT and other applicable indirect taxes  |
| <b>Language of quotation</b>                    | English<br>Including documentation including catalogues, instructions and operating manuals.   |
| <b>Documents to be submitted</b>                | Bidders shall include the following documents in their quotation:<br><input checked="" type="checkbox"/> Annex 2: Quotation Submission Form duly completed and signed<br><input checked="" type="checkbox"/> Annex 3: Technical and Financial Offer duly completed and signed and in accordance with the Schedule of Requirements in Annex 1<br><input checked="" type="checkbox"/> Company Profile.<br><input checked="" type="checkbox"/> Registration certificate;<br><input checked="" type="checkbox"/> List and value of similar Projects performed in the past 5 years plus contact details of three (3) clients who may be contacted for further información on those contracts;<br><input checked="" type="checkbox"/> List and value of ongoing Projects with UNDP and other national/multi-national organization with contact details of clients and current completion ratio of each ongoing project;<br><input checked="" type="checkbox"/> Statement of satisfactory Performance (Certificates) from the top 3 clients in terms of Contract value in similar field;  |

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| <b>Quotation validity period</b>   | Quotations shall remain valid for 90 days from the deadline for the Submission of Quotation.   |
| <b>Price variation</b>   | No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted at any time during the validity of the quotation after the quotation has been received.  |
| <b>Partial Quotes</b>  | <input checked="" type="checkbox"/> Not permitted  |
| <b>Alternative Quotes</b>  | <input checked="" type="checkbox"/> Not permitted<br><input type="checkbox"/> Permitted<br>If permitted, an alternative quote may be submitted only if a conforming quote to the RFQ requirements is submitted. Where the conditions for its acceptance are met, or justifications are clearly established, <a href="#">Click or tap here to enter text.</a> reserves the right to award a contract based on an alternative quote. If multiple/alternative quotes are being submitted, they must be clearly marked as “Main Quote” and “Alternative Quote” |
| <b>Payment Terms</b>   | <input checked="" type="checkbox"/> 100% within 30 days after receipt of goods, works and/or services and submission of payment documentation.   |
| <b>Conditions for Release of Payment</b>                                   | <input checked="" type="checkbox"/> Passing Inspection, Complete Installation, Testing and Training<br><input checked="" type="checkbox"/> Passing all Testing<br><input checked="" type="checkbox"/> Written Acceptance of Goods, Services and Works, based on full compliance with RFQ requirements  |
| <b>Contact Person for correspondence, notifications and clarifications</b> | <i>Deepak Kumar</i><br><i>Procurement Associate</i><br><a href="mailto:procurement.fj@undp.org">procurement.fj@undp.org</a><br><br>Attention: Quotations shall not be submitted to this address but to the address for quotation submission above. Otherwise, offer shall be disqualified.<br>Any delay in UNDP’s response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Proposers.   |
| <b>Clarifications</b>  | Requests for clarification from bidders will not be accepted any later than three (3) days before the submission deadline.   |
| <b>Evaluation method</b>   | <input checked="" type="checkbox"/> The Contract or Purchase Order will be awarded to the lowest price substantially compliant offer   |
| <b>Evaluation criteria</b>   | <input checked="" type="checkbox"/> Full compliance with all requirements as specified in Annex 1<br><input checked="" type="checkbox"/> Full acceptance of the General Conditions of Contract<br><input checked="" type="checkbox"/> Comprehensiveness of after-sales services<br><input checked="" type="checkbox"/> Earliest Delivery /shortest lead time   |
| <b>Right not to accept any quotation</b>                                   | UNDP is not bound to accept any quotation, nor award a contract or Purchase Order  |
| <b>Right to vary requirement at time of award</b>                          | At the time of award of Contract or Purchase Order, <a href="#">Click or tap here to enter text.</a> reserves the right to vary (increase or decrease) the quantity of services and/or goods, by up to a maximum twenty-five per cent (25% ) of the total offer, without any change in the unit price or other terms and conditions.   |
| <b>Type of Contract to be awarded</b>                                      | <input checked="" type="checkbox"/> Purchase Order<br><input checked="" type="checkbox"/> <a href="#">Contract Face Sheet</a> (Goods and-or Services) (this template is also utilised for Long-Term Agreement) and if an LTA will be signed, specify the document that will trigger the call-off. E.g., PO, etc.)  |
| <b>Expected date for contract award.</b>                                   | 16 August 2021   |

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| <b>Publication of Contract Award</b> | UNDP will publish the contract awards valued at USD 100,000 and more on the websites of the CO and the corporate UNDP Web site.  |
| <b>Policies and procedures</b>       | This RFQ is conducted in accordance with <a href="#">UNDP Programme and Operations Policies and Procedures</a>   |
| <b>UNGM registration</b>             | Any Contract resulting from this RFQ exercise will be subject to the supplier being registered at the appropriate level on the United Nations Global Marketplace (UNGM) website at <a href="http://www.ungm.org">www.ungm.org</a> . The Bidder may still submit a quotation even if not registered with the UNGM, however, if the Bidder is selected for Contract award, the Bidder must register on the UNGM prior to contract signature. |

## ANNEX 1: SCHEDULE OF REQUIREMENTS

### Technical Specifications

#### 1. General Requirements

The Generator set (quantity: 1) shall comprise of an **enclosed** diesel engine coupled to an alternator, mounted on a skid type base frame with facilities for lifting and handling. The generating set shall be completed with all fuel, exhaust, and control systems.

- 1.1 The generator set shall be Standby rated at 250kVA, 1500 RPM  
240/415 VAC, 3 phase, 4 wire, 50 hertz, including radiator fan and all parasitic loads.

#### 1.2 Material and Parts

All materials and parts comprising the unit shall be new and unused.

#### 2. Diesel Engine

##### 2.1 Engine Requirements

The engine shall be as manufactured by a standard engine manufacturer or approved equal. The engine shall be water-cooled inline, four-cycle compression ignition diesel. It shall meet specifications when operating on number 2 diesel fuels. Two cycle engines will not be considered. The engine shall be equipped with fuel, lube oil, and intake air filters, lube oil cooler, fuel transfer pump, fuel priming pump, service meter, and gear- driven water pump.

##### 2.2 Governor

Governor -- Hydra-Mechanical

The governor shall be mechanical with hydraulic assist as required. It shall maintain 3% or less speed droop from no load full rated load. Steady state speed regulation shall be +/- 0.33%. The governor shall be equipped with a vernier control and positive locking to allow manual speed adjustment.

##### 2.3 Block Design

The complete engine block shall be machined from one casting. Designs incorporating multiple blocks bolted together are not acceptable.

##### 2.4 Lubrication System

The engine shall utilize a gear-type, positive displacement, full pressure lubricating oil pump and water-cooled lube oil cooler. Pistons shall be spray cooled. Provide oil filters, oil pressure gauge, dipstick, and oil drain.

##### 2.5 Fuel System

Fuel filter and serviceable fuel system components shall be located to prevent fuel from spilling onto generator set batteries.

### 3. **Generator**

#### 3.1 Generator Specifications

The synchronous three phase generator shall be a double bearing, self-ventilated, drip proof Design.

#### 3.2 Insulation

The insulation material shall meet NEMA standards for Class H insulation and be

Vacuum impregnated with epoxy varnish to be fungus resistant. Temperature rise of the rotor and stator shall not exceed NEMA class F (130 °C rise by resistance over 40 C ambient). The excitation system shall be of brushless construction.

#### 3.3 Exciter

Self-Excited

The self-excited, brushless exciter shall consist of a three-phase armature and a three-phase full wave bridge rectifier mounted on the rotor shaft. Surge suppressors shall be included to protect the diodes from voltage spikes.

#### 3.4 Automatic Voltage Regulator

The automatic voltage regulator (AVR) shall maintain generator output voltage within +/-

0.5% for any constant load between no load and full load. The regulator shall be a totally solid state design, which includes electronic voltage buildup, volts per Hertz regulation, three phase sensing, Over-excitation protection, loss of sensing protection, temperature compensation, shall limit voltage overshoot on startup, and shall be environmentally sealed.

#### 3.5 Space Heater

Provide a generator mounted space heater, 240 VAC, and 1 phase.

### 4. **Circuit Breaker**

#### 4.1 Circuit Breaker Specifications

Provide a generator mounted circuit breaker, molded case, or insulated case construction. Breaker shall be of a standard brand and utilize a thermal magnetic trip unit and shunt trip. The breaker shall be with shunt trip device connected to engine/generator safety shutdowns. Breaker shall be housed in an extension terminal box mounted on the side of the generator. Mechanical type lugs, sized for the circuit breaker feeders shown on drawing, shall be supplied on the load side of breaker.

### 5. **Control Panel**

#### 5.1 Generator Mounted Control Panel

Provide a generator mounted control panel for complete control and monitoring of the engine and generator set functions. Panel shall include automatic start/stop operation; adjustable cycle cranking, digital AC metering (0.5% true RMS accuracy) with phase selector switch, digital engine monitoring, shutdown sensors and alarms with horn and reset, adjustable cool down timer and emergency



stop push-button. Panel shall incorporate self-diagnostics capabilities and fault logging. Critical components shall be environmentally sealed to protect against failure from moisture and dirt. Components shall be housed in a NEMA1/IP22 enclosure with hinged lid.

## 5.2 Digital Readouts

Provide the following digital readouts:

1. Engine oil pressure
2. Coolant temperature
3. Engine RPM
4. System DC Volts
5. Engine running hours
6. Generator AC volts
7. Generator AC amps
8. Generator frequency
9. KW meter
10. Percentage of rated Power
11. KVA meter
12. Kovar meter
13. Power Factor meter
14. KWHR meter

## 5.3 Alarm NFPA 110

Provide the following indications for protection and diagnostics according to

NFPA 110 Level 1:

1. Low oil pressure
2. High water temperature
3. Low coolant level
4. Overspeed
5. Overdrank
6. Emergency stop depressed
7. Approaching high coolant temperature
8. Approaching low oil pressure
9. Low coolant temperature

- 10. Low voltage in battery
- 11. Control switch not in auto. position
- 12. Low fuel main tank
- 13. Battery charger ac failure
- 14. High battery voltage
- 15. EPS supplying load
- 16. Spare

#### 5.4 Remote Annunciator NFPA 110

Provide a remote annunciator to meet the requirements of NFPA 110, Level 1.

The annunciator shall provide remote annunciation of all points stated above and shall incorporate ring-back capability so that after silencing the initial alarm, any subsequent alarms will sound the horn.

### 6. Cooling System

#### 6.1 Radiator

The generator set shall be equipped with a rail-mounted, engine-driven radiator with blower fan and all accessories. The cooling system shall be sized to operate at full load conditions and ambient air entering the room or enclosure. The radiator shall be filled with an extended life coolant. The coolant formula shall contain no phosphates or silicates, and it shall be recyclable. The generator set supplier is responsible for providing a properly sized cooling system based on the enclosure static pressure restriction.

### 7. Fuel System

#### 7.1 Fuel Filter

Filter/Separator – In addition to the standard fuel filters provided by the engine manufacturer, there shall also be installed a primary fuel filter/water separator in the fuel inlet line to the engine.

#### 7.2 Fuel Piping

All fuel piping shall be black iron or flexible fuel hose rated for this service. No galvanized piping will be permitted.

#### 7.3 Fuel Line Rating

Flexible fuel lines rated 300 degrees F and 100 PSI.

#### 7.4 Fuel Tank

Fuel Day Tank

A standard Listed, painted steel day tank with 200 liters capacity, to supply fuel to the engine, shall be furnished. A bronze gear pump which exceeds the maximum flow of fuel drawn by the engine-mounted fuel supply pump, including fuel returned from the engine, shall be mounted on the tank, and powered by a 240 VAC single phase motor. The pump shall be controlled by low/high level switches mounted inside the tank. Supply piping connections for fuel suction/return lines to fuel storage tank, fuel supply/return lines to engine, and emergency vent. Include local fuel fill, tank drain connection, removable inspection plate with gasket, 'press to test' switch, and fuel level gauge. The following accessories shall be provided: steel rupture basin to contain 150% capacity, fuel in rupture basin switch, fuel strainer.

## **8. Exhaust System**

### **8.1 Silencer**

A critical type silencer, companion flanges, and flexible stainless-steel exhaust fitting properly sized shall be furnished and installed according to the manufacturer's recommendation. Mounting shall be provided by the contractor as shown on the drawings. The silencer shall be mounted so that its weight is not supported by the engine nor will exhaust system growth due to thermal expansion be imposed on the engine. Exhaust pipe size shall be sufficient to ensure that exhaust backpressure does not exceed the maximum limitations specified by the engine manufacturer.

### **8.2 Exhaust System**

The muffler and all indoor exhaust piping shall be "lagged" by the contractor to maintain a surface temperature not to exceed 150F. The insulation shall be installed so that it does not interfere with the functioning of the flexible exhaust fitting.

## **9. Starting System**

### **9.1 Starting Motor**

A DC electric starting system with positive engagement shall be furnished. The motor voltage shall be as recommended by the engine manufacturer.

### **9.2 Batteries**

A lead-acid storage battery set of the heavy-duty diesel starting type shall be provided. Battery voltage shall be compatible with the starting system. The battery set shall be rated no less than 172-ampere hours. Necessary cables and clamps shall be provided.

### **9.3 Battery Trays**

A battery tray shall be provided for the batteries and shall conform to relevant standards. It shall be treated to be resistant to deterioration by battery electrolyte. Further, construction shall be such that any spillage or boil-over battery electrolyte shall be contained within the tray to prevent a direct path to ground.

### **9.4 Battery Charger**

A current limiting battery charger shall be furnished to automatically recharge batteries. Charger shall float at 2.17 volts per cell and equalize at 2.33 volts per cell. It shall include overload protection, silicon diode full wave rectifiers, voltage surge suppressor, DC ammeter, DC voltmeter, and fused AC input. AC input voltage shall be 240 volts, single phase. Charger shall have LED annunciation for low DC volts,

rectifier failure, loss of AC power, high DC volts. Amperage output shall be no less than ten (10) amperes. Charger shall be wall-mounting type in NEMA 1 enclosure.

## **10. Standard Enclosure**

10.1 The factory-installed engine generator set enclosure shall be performance tested as a package with the listed and labeled engine generator set and is considered rainproof in accordance for outdoor-use units. A decal indicating the enclosure listing shall be pasted on the interior edge of the left middle door. Steel weather protective enclosure with 14- gauge sheet metal and a minimum ambient capability of 43 C (110 F). Shall have removable, hinged doors and removable end panels to allow easy routine maintenance. All hinges and latches shall be rust resistant and doors shall be equipped with rubber seals. A lockable service access cover shall be provided for easy access to the radiator fill cap. Vibration isolators between genset and base minimize engine vibration transmitted to base, enclosure, control panel and circuit breaker, reducing noise and mechanical stress. Directional louvers further avoid mechanical noise. The enclosure shall be painted utilizing a recognized paint system. Each module is fully supported by the Factory Parts Department.

## **11. Automatic Transfer Switch**

An automatic transfer switch shall be furnished as specified herein.

### **11.1 General**

- 1) The transfer switch shall be rated for the voltage and ampacity as shown on the plans and shall have 600-volt insulation on all parts in accordance with NEMA standards.
- 2) The current rating shall be a continuous rating when the switch is installed in an unventilated enclosure and shall conform to NEMA temperature rise standards. Designs which require cabinet ventilation are unacceptable and do not meet this specification.
- 3) The unit shall be rated based on all classes of loads, i.e., resistive, tungsten, ballast, and inductive loads. Switches rated 400 amperes or less shall be listed for 100% tungsten lamp load.
- 4) As a precondition for approval, all transfer switches complete with accessories shall be listed and approved for use on emergency systems.
- 5) The withstand current capacity of the main contacts shall not be less than 20 times the continuous duty rating when coordinated with any molded case circuit breaker established by certified test data. Refer to required withstand and close ratings as detailed in this specification.
- 6) Load and endurance tests to confirm the ability of the units to carry their rated currents within the allowable temperature limits.
- 7) Transfer switches shall comply with the applicable standards.
- 8) The transfer switches shall be supplied with a microprocessor-based control panel as detailed further in these specifications.

### **11.2 Sequence of Operation**

- 1) The ATS shall incorporate adjustable three phase (or single phase as applicable) under voltage sensing of the normal source
- 2) When the voltage of any phase of the normal source is reduced to 80% of nominal voltage, for a period of 0-10 seconds (programmable) a pilot contact shall close to initiate starting of the engine generator.
- 3) The ATS shall incorporate adjustable single-phase under-voltage sensing of the emergency source.

- 4) When the emergency source has reached a voltage value within 90% of nominal voltage and achieved frequency within 95% of the rated value, the load shall be transferred to the emergency source after a programmable time delay.
- 5) When the normal source has been restored to not less than 90% of rated voltage on all phases, the load shall be re-transferred to the normal source after a time delay of 0 to 30 minutes (programmable). The generator shall run unloaded for 5 minutes (programmable) and then automatically shut down. The generator shall be ready for automatic operation upon the next failure of the normal source.
- 6) If the engine generator should fail while carrying the load, retransfer to the normal source shall be made instantaneously upon restoration of proper voltage (90%) on the normal source.
- 7) Site inspection and operational tests shall be conducted by the factory trained generator service technician in the presence of the engineer, to indicate that the switch satisfies the specifications.
- 8) The transfer switch shall be equipped with a microprocessor-based control panel. The control panel shall perform the operational and display functions of the transfer switch. The display functions of the control panel shall include ATS position and source availability, sequence indication and diagnostics.
- 9) The front panel display shall include indicators for timing functions, capability to bypass the TD on transfer or retransfer, an ATS test switch and afford on-board diagnostic capability.
- 10) The digital display shall be accessible without opening the enclosure door and shall be provided with a 4 line by 20-character LCD display screen with touch pad function and display menus. The programming functions shall be pass code protected.
- 11) The control panel shall be provided with menu driven display screens for transfer switch monitoring, control and field configurable functions and settings
- 12) The control panel shall be opto-isolated from its inputs to reduce susceptibility to electrical noise and provided with the following inherent control functions and capabilities:
  - a. Multipurpose display for continuous monitoring and control of the ATS functions and settings. All field configurable functions shall be pass code protected and accessible through the keypad.
  - b. Built-in diagnostic display that includes the capturing of historical data, such as number of transfers and time on emergency power source, for ease of troubleshooting.
  - c. Capability to support external communication and network interface through an optional RS 485 serial port.
  - d. Touch pad test switch to simulate a normal source failure.
  - e. Time delay to override momentary normal source failure prior to engine start. Field programmable 0-10 seconds (continuously adjustable via a calibrated potentiometer factory set at 3 seconds.
  - f. Time delay on retransfer to normal source, continuously adjustable 0-30 minutes, factory set at 30 minutes. If the emergency source fails during the retransfer time delay, the transfer switch controls shall automatically bypass the time delay and immediately retransfer to the normal position.
  - g. Time delay on transfer to emergency, continuously adjustable 0-15 seconds, factory set at 1 second.

- h. An in-phase monitor shall be provided. The monitor shall compare the phase angle difference between the normal and emergency sources and be programmed to anticipate the zero-crossing point to minimize switching transients.
- i. An interval-type automatic clock exerciser shall be incorporated within the microprocessor.
- j. Provide a momentary pushbutton to bypass the time delays on transfer and retransfer.

## 12. Construction and Performance

1. The automatic transfer switch shall be of double throw construction operated by a reliable electrical mechanism momentarily energized. There shall be a direct mechanical coupling to facilitate transfer in 6 cycles or less.
2. The normal and emergency contacts shall be mechanically interlocked such that failure of any coil or disarrangement of any part shall not permit a neutral position.
3. For switches installed in systems having ground fault protective devices, and/or wired to be designated a separately derived system by the NEC, a 4th pole shall be provided. This additional pole shall isolate the normal and emergency neutrals. The neutral pole shall have the same withstand and operational ratings as the other poles and shall be arranged to break last and make first to minimize neutral switching transients. Add-on or accessory poles that are not of identical construction and withstand capability are not acceptable. The contact structure shall consist of a main current carrying contact, which is a silver alloy with a minimum of 50% silver content. The current carrying contacts shall be protected by silver tungsten arcing contacts on all sizes above 400 Amps.
4. The automatic transfer switch manufacturer shall certify sufficient arc interrupting capabilities for 50 cycles of operation between a normal and emergency source that are 120 degrees out of phase at 415 volts, 600% of rated current at .50 power factor. This certification is to ensure that there will be no current flow between the two isolated sources during switching.
8. All relays shall be continuous duty industrial type with wiping contacts. Customer interface contacts shall be rated 10 amperes minimum. Coils, relays, timers, and accessories shall be readily fronted accessible. The control panel and power section shall be interconnected with a harness and keyed disconnect plugs for maintenance.
9. Main and arcing contacts shall be visible without major disassembly to facilitate inspection and maintenance.
10. A manual handle shall be provided for maintenance purposes with the switch de-energized. An operator disconnect switch shall be provided to defeat automatic operation during maintenance, inspection, or manual operation.
11. The switch shall be mounted in a NEMA 1 enclosure unless otherwise indicated on the plans.
12. Switches composed of molded case breakers, contactors or components thereof not specifically designed as an automatic transfer switch will not be acceptable. The automatic transfer switch shall be warranted against defects in material or workmanship for a period of two years from the date of shipment.

13. To afford the advantage of a single source of supply to the owner, the automatic transfer switch shall be supplied by the manufacturer of the engine generator set and covered under the same warranty program.

### 13. Execution

#### 13.1 Installation

Install equipment in accordance with manufacturer's recommendations, the project drawings and specifications, and all applicable codes.

#### 13.2 Start-Up and Testing

A. Coordinate all start-up and testing activities with the Engineer and Owner.

B. After installation is complete and normal power is available, the manufacturer's local dealer shall perform the following:

1. Verify that the equipment is installed properly.
2. Check all auxiliary devices for proper operation, including battery charger, jacket water heater(s), generator space heater, remote annunciator, etc.
3. Test all alarms and safety shutdown devices for proper operation and annunciation.
4. Check all fluid levels.
5. Start engine and check for exhaust, oil, fuel leaks, vibrations, etc.
6. Verify proper voltage and phase rotation at the transfer switch before connecting to the load.
7. Connect the generator to building load and verify that the generator will start and run all designated loads in the plant.
8. Perform a 4-hour load bank test at .80 power factor at full nameplate load using a reactive load bank and cables supplied by the local generator dealer. Observe and record the following data at 15-minute intervals:

- A. Service meter hours
- B. Volts AC - All phases C.  
Amps AC - All phases D.  
Frequency
- E. Power factor or Vars
- F. Jacket water  
temperature
- G. Oil Pressure
- H. Fuel pressure
- I. Ambient temperature

### 13.3 Operation and Maintenance Manuals

#### Manuals Provided

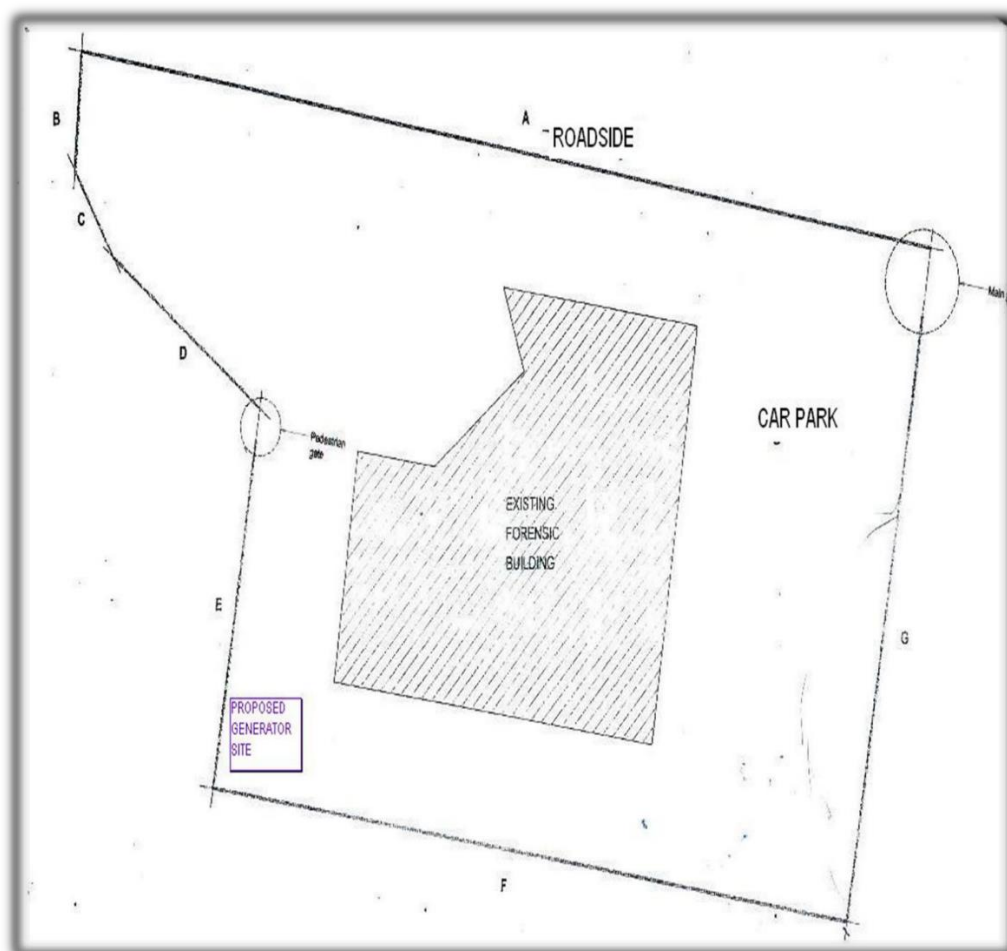
Provide four (4) sets of operation and maintenance manuals covering the generator, switchgear, and auxiliary components. Include parts manuals, final as-built wiring interconnect diagrams and recommended preventative maintenance schedules. This is to be considered together as a package with the generator supplied.

### 13.4 Training

#### On-Site Training

Provide one day of on-site training to instruct the owner's personnel in the proper operation and maintenance of the equipment. Review operation and maintenance manuals, parts manuals, and emergency service procedures.

### 14. Location map for proposed site for generator





**Delivery Requirements**

| <b>Delivery Requirements</b>   |  |
|--|--|
| <b>Delivery date and time</b>  | Bidder shall deliver the goods 30-90 days from the issuance of the Purchase Order. The delivery time can be mutually discussed.  |
| <b>Delivery Terms (INCOTERMS 2020)</b>                                 | <input checked="" type="checkbox"/> DAP  |
| <b>Customs clearance (must be linked to INCOTERM)</b>                  | <input checked="" type="checkbox"/> Supplier/bidder  |
| <b>Exact Address(es) of Delivery Location(s)</b>                       | Fiji Police Forensics Science Services, Nasova Road, Suva, Fiji.   |
| <b>Distribution of shipping documents (if using freight forwarder)</b> | N/A  |
| <b>Packing Requirements</b>  | N/A  |
| <b>Training on Operations and Maintenance</b>                          | Required   |
| <b>Warranty Period</b>   | 3 years  |
| <b>After-sales service and local service support requirements</b>      | <input checked="" type="checkbox"/> Technical Support<br><input checked="" type="checkbox"/> Provision of Service Unit when pulled out for maintenance/ repair<br><input checked="" type="checkbox"/> Supplier to provide international warranty and have a dedicated distributor or dealer to supply spare parts and repair equipment |
| <b>Preferred Mode of Transport</b>                                     | Air  |

**ANNEX 2: QUOTATION SUBMISSION FORM**

*Bidders are requested to complete this form, including the Company Profile and Bidder's Declaration, sign it and return it as part of their quotation along with Annex 3: Technical and Financial Offer. The Bidder shall fill in this form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.*

|                 |                                  |                                     |
|-----------------|----------------------------------|-------------------------------------|
| Name of Bidder: | Click or tap here to enter text. |                                     |
| RFQ reference:  | <b>RFQ/FJI/005/2021</b>          | Date: Click or tap to enter a date. |

**Company Profile**

| Item Description  | Detail  |
|---|---|
| Legal name of bidder or Lead entity for JVs   | Click or tap here to enter text.  |
| Legal Address, City, Country  | Click or tap here to enter text.  |
| Website   | Click or tap here to enter text.  |
| Year of Registration  | Click or tap here to enter text.  |
| Legal structure   | Choose an item.   |
| Are you a UNGM registered vendor?   | <input type="checkbox"/> Yes <input type="checkbox"/> No      If yes, insert UNGM Vendor Number |
| Quality Assurance Certification (e.g. ISO 9000 or Equivalent) (If yes, provide a Copy of the valid Certificate):  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                             |
| Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? (If yes, provide a Copy of the valid Certificate):  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                             |
| Does your Company have a written Statement of its Environmental Policy? (If yes, provide a Copy)  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                             |
| Does your organization demonstrate significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies or membership of trade institutions promoting such issues (If yes, provide a Copy) | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                             |

| Is your company a member of the UN Global Compact | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   |                |                    |                                |
|---|---|----------------|--------------------|--------------------------------|
| Bank Information                                  | Bank Name: Click or tap here to enter text.<br>Bank Address: Click or tap here to enter text.<br>IBAN: Click or tap here to enter text.<br>SWIFT/BIC: Click or tap here to enter text.<br>Account Currency: Click or tap here to enter text.<br>Bank Account Number: Click or tap here to enter text. |                |                    |                                |
| Previous relevant experience: 3 contracts         |   |                |                    |                                |
| Name of previous contracts                        | Client & Reference Contact Details including e-mail   | Contract Value | Period of activity | Types of activities undertaken |
|   |   |                |                    |                                |
|   |   |                |                    |                                |
|   |   |                |                    |                                |

**Bidder's Declaration**

| Yes                      | No                       |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <b>Requirements and Terms and Conditions:</b> I/We have read and fully understand the RFQ, including the RFQ Information and Data, Schedule of Requirements, the General Conditions of Contract, and any Special Conditions of Contract. I/we confirm that the Bidder agrees to be bound by them.  |
| <input type="checkbox"/> | <input type="checkbox"/> | I/We confirm that the Bidder has the necessary capacity, capability, and necessary licenses to fully meet or exceed the Requirements and will be available to deliver throughout the relevant Contract period.   |
| <input type="checkbox"/> | <input type="checkbox"/> | <b>Ethics:</b> In submitting this Quote I/we warrant that the bidder: has not entered into any improper, illegal, collusive or anti-competitive arrangements with any Competitor; has not directly or indirectly approached any representative of the Buyer (other than the Point of Contact) to lobby or solicit information in relation to the RFQ ;has not attempted to influence, or provide any form of personal inducement, reward or benefit to any representative of the Buyer.  |
| <input type="checkbox"/> | <input type="checkbox"/> | I/We confirm to undertake not to engage in proscribed practices, , or any other unethical practice, with the UN or any other party, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the UN and we have read the United Nations Supplier Code of Conduct : <a href="https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct">https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct</a> and acknowledge that it provides the minimum standards expected of suppliers to the UN.                        |
| <input type="checkbox"/> | <input type="checkbox"/> | <b>Conflict of interest:</b> I/We warrant that the bidder has no actual, potential, or perceived Conflict of Interest in submitting this Quote or entering a Contract to deliver the Requirements. Where a Conflict of Interest arises during the RFQ process the bidder will report it immediately to the Procuring Organisation's Point of Contact.  |
| <input type="checkbox"/> | <input type="checkbox"/> | <b>Prohibitions, Sanctions:</b> I/We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/Consortium members or subcontractors or suppliers for any part of the contract is not under procurement prohibition by the United Nations, including but not limited to prohibitions derived from the Compendium of United Nations Security Council Sanctions Lists and have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization. |
| <input type="checkbox"/> | <input type="checkbox"/> | <b>Bankruptcy:</b> I/We have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against them that could impair their operations in the foreseeable future.  |

| Yes                      | No                       |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <b>Offer Validity Period:</b> I/We confirm that this Quote, including the price, remains open for acceptance for the Offer Validity.   |
| <input type="checkbox"/> | <input type="checkbox"/> | I/We understand and recognize that you are not bound to accept any Quotation you receive, and we certify that the goods offered in our Quotation are new and unused.                 |
| <input type="checkbox"/> | <input type="checkbox"/> | By signing this declaration, the signatory below represents, warrants and agrees that he/she has been authorised by the Organization/s to make this declaration on its/their behalf. |

Signature: \_\_\_\_\_

Name: Click or tap here to enter text.

Title: Click or tap here to enter text.

Date: Click or tap to enter a date.

**ANNEX 3: TECHNICAL AND FINANCIAL OFFER - GOODS**

Bidders are requested to complete this form, sign it and return it as part of their bid along with Annex 2: Quotation Submission Form. The Bidder shall fill in this form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.

|                 |                                  |                                     |
|-----------------|----------------------------------|-------------------------------------|
| Name of Bidder: | Click or tap here to enter text. |                                     |
| RFQ reference:  | <b>RFQ/FJI/005/2021</b>          | Date: Click or tap to enter a date. |

| <b>Currency of the Quotation: USD</b>      |                     |     |     |            |             |
|--|---------------------|-----|-----|------------|-------------|
| <b>INCOTERMS: DAP</b>                      |                     |     |     |            |             |
| Item No                                    | Description         | UOM | Qty | Unit price | Total price |
| 1.   | Supply of Generator |     |     |            |             |
| 2.   | Freight Cost        |     |     |            |             |
| Total Price                                |                     |     |     |            |             |
| Insurance Price                            |                     |     |     |            |             |
| Installation Price                         |                     |     |     |            |             |
| Training Price                             |                     |     |     |            |             |
| Other Charges (specify)                    |                     |     |     |            |             |
| <b>Total Final and All-inclusive Price</b> |                     |     |     |            |             |

**Compliance with Requirements**

|                                       | You Responses            |                          |   |
|---------------------------------------|--------------------------|--------------------------|---|
|                                       | Yes, we will comply      | No, we cannot comply     | If you cannot comply, pls. indicate counter - offer |
| Minimum Technical Specifications      | <input type="checkbox"/> | <input type="checkbox"/> | Click or tap here to enter text.                    |
| Delivery Term (INCOTERMS)             | <input type="checkbox"/> | <input type="checkbox"/> | Click or tap here to enter text.                    |
| Delivery Lead Time                    | <input type="checkbox"/> | <input type="checkbox"/> | Click or tap here to enter text.                    |
| Warranty and After-Sales Requirements | <input type="checkbox"/> | <input type="checkbox"/> | Click or tap here to enter text.                    |
| Validity of Quotation                 | <input type="checkbox"/> | <input type="checkbox"/> | Click or tap here to enter text.                    |
| Payment terms                         | <input type="checkbox"/> | <input type="checkbox"/> | Click or tap here to enter text.                    |

**Other Information:**

|   |                                  |
|---|----------------------------------|
| Estimated weight/volume/dimension of the Consignment:   | Click or tap here to enter text. |
| Country/ies of Origin:<br>(if export licence required this must be submitted if awarded the contract) | Click or tap here to enter text. |

|   |   |
|---|---|
| I, the undersigned, certify that I am duly authorized to sign this quotation and bind the company below in event that the quotation is accepted.  |   |
| <i>Exact name and address of company</i><br>Company NameClick or tap here to enter text.<br>Address: Click or tap here to enter text.<br>Click or tap here to enter text.<br>Phone No.:Click or tap here to enter text.<br>Email Address:Click or tap here to enter text. | Authorized Signature:<br>Date:Click or tap here to enter text.<br>Name:Click or tap here to enter text.<br>Functional Title of Authorised Signatory:Click or tap here to enter text.<br>Email Address: Click or tap here to enter text. |