



## TERMS OF REFERENCE (ToR)

### PREVENTIVE AND CORRECTIVE MAINTENANCE SERVICES FOR BACKUP GENERATOR SET

MINISTRY OF FOREIGN AFFAIRS, MALÉ, REPUBLIC OF MALDIVES



## 1. INTRODUCTION & OBJECTIVE

The Ministry of Foreign Affairs requires the services of a qualified, experienced, and locally registered engineering firm to provide comprehensive preventive and corrective maintenance for its standby diesel generator set. The primary objective is to guarantee 100% operational readiness, prevent power interruptions to critical ministry operations, and extend the lifespan of the equipment through certified technical care.

## 2. EQUIPMENT SPECIFICATIONS & LOCATION

- Equipment Type: Land-Based Diesel Generator Set,

Make/Model: Cummins 6BTAA5.9-G12 150KW,

Serial number: 78714432

- Phase: 3 Phase
- Date: 2019.12
- Capacity: 150 kW
- Location: Ministry of Foreign Affairs Office Building (Fathulla Jameel Building), Boduthakurufaanu Magu, Malé, Maldives.



- Target Components: Engine, alternator, cooling system, fuel system, control panel, and Automatic Transfer Switch (ATS).

### 3. SCOPE OF WORK

The selected Contractor shall provide all labor, tools, diagnostic equipment, and transport necessary to execute the following services:

#### 3.1 Routine Preventive Maintenance (PM)

PM visits shall be conducted at scheduled intervals (bi-monthly or quarterly) and must include, but are not limited to:

- Engine System: Check and change engine oil, oil filters, fuel filters, and air filters at recommended running-hour intervals or annually. Inspect for any fluid leaks (oil, coolant, fuel).
- Cooling System: Inspect radiator core, check coolant level/antifreeze concentration, inspect drive belts, and verify jacket water heater operation.
- Fuel System: Inspect fuel lines, clean fuel pre-filters, drain water separators, and check the integrity of the bulk fuel storage and day tank lines.
- Electrical & Control Systems: Test, clean, and tighten all wiring connections. Inspect and test starter batteries, trickle charger functionality, control panel programming, and safety shutdown parameters (low oil pressure, high water temperature).
- Operational Testing: Conduct an un-loaded operational test during routine visits to verify stable voltage and frequency outputs.

#### 3.2 Semi-Annual / Annual Testing

- Load Testing: Perform an annual continuous load-bank test or coordinated building load-transfer test (minimum 1 to 2 hours) to verify the generator's performance under operational demand.
- ATS Integration: Inspect, clean, and test the Automatic Transfer Switch (ATS) to ensure seamless power transition within the designated threshold seconds during a main utility grid failure.



### 3.3 Corrective Maintenance & Emergency Support

- Troubleshooting & Repair: Provide diagnostic and repair services for mechanical or electrical faults outside routine servicing.
- Emergency Call-Outs: Provide uncompromised 24/7/365 emergency support for critical generator breakdowns.

## 4. CONTRACTOR QUALIFICATIONS & REQUIREMENTS

Bidders must meet the following baseline criteria to be deemed technically eligible:

- Corporate Standing: Must be a legally registered business/engineering entity in the Republic of Maldives with a verified track record in MEP or power generation services.
- Technical Expertise: Service technicians assigned to the site must possess recognized certifications or diplomas in mechanical/electrical engineering or specialized generator maintenance.
- Safety & Compliance: Must comply with local electrical regulatory standards, environmental handling of hazardous waste (such as used lubricants/batteries), and occupational health and safety protocols.
- Local Presence: Must maintain an active office, workshop, and spare parts inventory within the Malé/Hulhumalé region to ensure logistical readiness.

## 5. SERVICE LEVEL AGREEMENT (SLA)

- Emergency Response Time: The Contractor must arrive on-site within 1 hour of receiving an emergency breakdown notification from the Ministry.
- Routine Resolution: Non-emergency repairs must be diagnosed and a quotation for spare parts submitted within 24 hours.

## 6. DELIVERABLES & REPORTING

Following every maintenance visit or repair activity, the Contractor must submit:

- A detailed Service Report signed off by the Ministry's designated facility representative.



- Checklist logs covering all inspected parameters (battery voltages, fluid levels, pressures, running hours).
- Recommendations for any proactive component replacements or long-term overhauls.

## 7. BID SUBMISSION REQUIREMENTS

Interested parties must submit a comprehensive proposal including:

- Technical Proposal: Bid Evaluation Form, Company profile, registration copies, Tax Clearance Certificate, CVs of key technical personnel, and proof of minimum of 5 similar contracts executed over the last 3 years.
- Financial Proposal: Broken down by Annual Maintenance Contract (AMC) fixed fees, hourly labor rates for emergency/corrective work, and standard markup percentages for replacement parts.
- Proposal Validity: Bids must remain valid for a minimum of 01 year from the submission deadline.