**Section II: Schedule of Requirements**

**eSourcing reference: ITB/2023/45946**

**The ITB consists of one item for the procurement of Diesel Generators with Accessories**

**- 45KVA Diesel Generators with Accessories Quantity 95**

**Technical specifications for Goods and Comparative Data Table**

| Item No | **UNOPS requested Technical Specifications** | |
| --- | --- | --- |
|  | **Item Description** | |
| **1** | **45 KVA Diesel Generator with Canopy and ATS - Quantity 95** | |
|  | **Engine** | |
| **Country of Origin** | Must be specified |
| **Brand** | Must be specified |
| **Model and Model number** | Must be specified |
| **Engine Type** | 4 stroke |
| **Cylinder formation** | In-line |
| **Aspiration** | Turbo charged |
| **Cooling system** | Water cooled |
| **Fuel injection system** | Direct |
| **Fuel type** | Diesel |
| **Governor** | Electronic speed governor with electro mechanical actuator. |
| **Fuel tank capacity(volume)** | Minimum 160 Litres |
| **Engine heating** | Water jacket heather wired to be supplied by the mains power.  Voltage - 230Vac  Power - 500w min |
| **Testing** | In accordance with ISO 8528 (BS7698) part 6 standards or equivalent |
| **Alternator** | |
| **Country of Origin** | Must be specified |
| **Brand** | Must be specified |
| **Model and Model number** | Must be specified |
| **Prime power rating (PMP)** | 45KVA (36Kw) |
| **Standby power Rating** | 49- 50 KVA (40 KW) |
| **Voltage** | 230/400 Volts |
| **RPM** | 1500 rpm |
| **Power factor** | 0.8 |
| **Frequency** | 50 Hz |
| **Type** | Brushless, self excited |
| **Number of poles** | 4 |
| **Voltage regulation** | Automatic Voltage Regulator(AVR) |
| **Main circuit breaker** | MCCB in enclosure |
| **Insulation** | Class H Insulation; in accordance with IEC 60085 standards |
| **Controller** | Country of Origin - must be specified |
| Brand - must be specified |
| Model and Model number - must be specified |
| Operation modes, Automatic & Manual (minimal) |
| **Detections** |
| Mains under voltage, Over voltage, Phase reversal detection |
| Phase missing detection |
| **Warnings alarms ( minimal values)** |
| Low coolant temperature |
| Output breaker open alarm |
| Low fuel level |
| **Shutdown alarms audible ( minimal values)** |
| Low oil pressure |
| High coolant temperature |
| Engine overspeed |
| Emergency stop |
| Earth leakage detection |
| Over voltage |
| Under frequency |
| Overload |
| **Indications and metering** |
| Availability of supply ( generator & Mains) indication |
| Transfer status indication |
| Generator voltage , frequency, Load/Kva/, KVAr readings |
| Mains voltage & frequency readings |
| Engine oil pressure, coolant temperature, Battery voltage, Engine speed (RPM), running hour, fuel level.. are minimal |
| **Error Log** |
| Log recording |
| Active errors |
| Reset mechanism |
| **Communication** |
| Should incorporate a communication module. |
| **ATS** | Installed inside a box within the canopy |
| Type of transfer mechanism - Motorized or Solenoid type only. |
| Interlock - electrical & mechanical |
| Capacity rating- 50KVA min |
| Operation- Manual & automatic |
| **Enclosure (Canopy)** | The engine and alternator (including integrated fuel tank) shall be mounted and aligned on a rigid skid, fabricated from cross- braced structure steel members. |
| The skid shall be complete with all necessary fixings and floor strengthening as required and be provided with vibration mounts |
| All sheet metal shall be primed for corrosion Protection and finish painted with the manufacturer's standard |
| Enclosure and terminal box to be rated in minimum of protection class IP 23. |
| Lifting points for handling |
| Include emergency stop |
| Exterior earthing port with 1.2m 16mm diameter earth stick and Ground cable 1X50mm2 10m |
| **Environment** | |
| **Fuel Consumption** | Maximum 11.6L/hr @ 100% load or 9L/hr @ 75% load |
| **Sound level (silenced gen set) 7mt** | <=68 DB |
| **Ambient temperature** | 0 to 50 'C |
| **Altitude** | 2700 m.a.s.l |
| **Cable** | 5x25mm2 direct burial type power cable |
| **Warranty** | Minimum 2 years warranty |
| **Battery** | Maintenance free 12V lead-acid battery with frame, terminals and cables. |
| **Manuals** | Installation instructions and drawings in English, ATS system electrical drawings in English, Operation & maintenance manuals in English, troubleshooting manual in English, mechanical and electrical drawing of the generator |
| **Product Quality Certificate** | CE or equivalent (for complete generating set) |
| **Size and Dry weight (Max.)** | Must be specified |
| **The manufacturer/supplier should have a local agent/dealer in Ethiopia**  **(If no local agent/dealer in Ethiopia, Can you commit/agree to arrange a local agent/dealer in Ethiopia within 2-3 weeks after award?)** | LocaL agent contact or commitment letter should be submitted |

**UNOPS Sustainability, Deliver, and the right to vary –– Comparative Data Table**

| **UNOPS Requirements** | |
| --- | --- |
| **Sustainability Requirements I** | The bidder shall demonstrate that its organisation has an environmental management system in place which as a minimum shall provide information on the following:  - the environmental policy principles of the organisation;  - the management measures taken or that will be taken to assess and mitigate the environmental impacts of the business processes/products associated with the execution of the contract;  - procedures for monitoring environmental impacts and measures and revalued as a basis for continuous improvement;  - how attention is paid to the awareness and training/competency of employee(s) and supplier(s) with regard to dealing with the environmental aspects relevant to this bid;  - and that compliance with the environmental legislation applicable to the required performance(s) is guaranteed. |
| **Sustainability Requirements II** | The bidder shall provide documentation that details their approach to ensuring equal opportunity, diversity, and inclusion within their organisation (e.g. equal pay policy, parental leave, the ratio of female to male employees, % of females in management positions, grievances disaggregated by gender, transparency of promotion criteria, sexual harassment policies). Bidders are encouraged to take the WEPs Gender Gap Analysis Tool to identify strengths, gaps, and opportunities to improve their performance on gender equality. |
| **Delivery time** | Bidder must deliver the goods within within 10 weeks under FCA as per Incoterms 2020 after Contract signature |
| **Delivery time** | Bidder must deliver the goods within within 14 weeks under DAP as per Incoterms 2020 after Contract signature |
| **UNOPS Right to vary requirements** | At the time the Contract is awarded, UNOPS reserves the right to vary the quantity of the goods and associated services specified above, provided this does not exceed +/- 20%, without any change in the unit prices or other terms and conditions of the ITB |

**Additional required information that bidders are expected to provide together with their bid submission.**

* Manufacturer name and year of manufacture of the offered product
* Detailed product data sheet/ catalogue of the offered product