SCOPE OF WORK

THE APPOINTMENT OF A SERVICE PROVIDER FOR A ONCE OFF SERVICING OF DIESEL ENGINES AT THE SANPC REFINERY

1. INTRODUCTION

1.1 CEF SOC Ltd is a Schedule 2 State Owned national energy utility entity with a focus on oil, gas, coal and renewable and clean energy options reporting to the **Department of Mineral And Petroleum Resources (DMPR)** as its primary shareholder. The company derives its mandate primarily from the Central Energy Fund Act No. 38 of 1977. CEF has recently bought the SAPREF Refinery Precinct Asset from Shell and BP (SAPREF) now referred to as SANPC Refinery.

1.2 SANPC Refinery have fixed and mobile firewater pumps on site that are diesel driven. The diesel engines driving the pumps must be maintained regularly. Major services are scheduled to be done on the diesel engines. Regular servicing ensures the reliability of the engines and reduces risk of failures during emergencies.

1.3 This scope of work covers the major servicing required for preventive maintenance of diesel engines driving fire water pumps across the refinery. There are 5 fire water pumps that are diesel driven, namely P3310, P3301B, P1134A, P1134B and Williams Pump.

1.4 During servicing the service provider may diagnose faults that are not part of the standard major service such as worn components. The additional scope will be vetted by the SANPC Rotating Equipment focal point. Any major corrective work that may be needed will be planned and executed following the service. Minor work may be undertaken during the servicing and related costs covered in a contingency.

1.5 The contractor is expected to provide reports for each engine serviced and highlight any faults or concerns identified during the service. The report must include recommendations from the contractor. Reports are to be issued within one week of the service being carried out.

1.6 Experienced and qualifying diesel engine repair and servicing contractors will have the opportunity to view the 5 fire water pump engines on site before submitting quotes. Information relating to replacement parts like filters, gaskets and any other relevant details must be gathered by the contractor during the site viewing for their quoting purposes.

1.7 The contractor shall supply all labour, supervision, spare parts, consumables, materials, equipment, instruments, tools, services and transport required for performing the works.

1.8 The contractor shall not, without the prior written consent of SANPC Refinery, make any alteration or addition to the Scope of Work.

1.9 **The successful contractor will need to present HSSE files to SANPC Refinery HSSE department for approval. Only when the safety file is reviewed and approved will work be allowed to work on site.**

1.10 The allocated contractor staff will also need induction by the SANPC Refinery HSSE department, undergo hotwork and confined space entry training as well as have valid medical fitness for work certificates issued by an occupational heal practitioner before undertaking work at the refinery.

1.11 After the above conditions are met, the contractor will need to carry out Risk Assessments for each activity. Risk assessments is a prerequisite to the issue of a clearance certificate to carry out work on site. This is included in the induction training provided by the SANPC HSE department.

1.12 The contractor staff are required to have the technical qualifications, knowledge and experience in diagnosis, servicing and repairing diesel engines. Proof of qualifications and experience will be required as part of the bidding process.

1.13 **The contractor is required to be registered on CSD.**

2. SCOPE OF WORK – PARTICULAR

2.1 The scope of work is related to diesel engines driving the following pumps:

- 2.1.1 P3310- Mitsubishi, S6N-PTA, 500HP(Fixed Pump)
- 2.1.2 P1134A- Mitsubishi, S6N-PTA, 500HP(Fixed Pump)
- 2.1.3 P1134B- Mitsubishi, S6N-PTA, 500HP (Fixed Pump)
- 2.1.4 P3301B- Caterpiller, 3508. (Fixed Pump)
- 2.1.5 Williams Pump- Caterpiller C18. (Mobile Pump)

2.2 The scope of work for the major services requires the following for each of the diesel engines:

- 2.2.1 Check engine for any fluid leaks – oil, water, fuel.
- 2.2.2 Drain cooling water system and refill with water and the relevant corrosion inhibitor.
- 2.2.3 Drain engine oil.
- 2.2.4 Replace oil filters.
- 2.2.5 Refill with engine oil.
- 2.2.6 Check turbo-charger end float.
- 2.2.7 Check crankshaft end float.
- 2.2.8 Check all exhaust and turbo mounting bolts for tightness.
- 2.2.9 Check all engine mounting bolts and driver to driven coupling bolts for tightness.

2.2.10 Check all fluid levels – engine oil, coolant, injector and governor levels.
2.2.11 Check tension on v-belts. Replace if necessary.
2.2.12 Replace water hoses as required
2.2.13 Replace air filter.
2.2.14 Replace fuel filter.
2.2.15 Drain fuel filter water trap.
2.2.16 Check electrical connections on battery and starter motor for tightness.
2.2.17 Check general wiring electrics and instrumentation condition on the engine.
2.2.18 Check overall condition of the engine for any faults. Any issues to be recorded on report to SANPC Focal point.
2.2.19 Check that all safety guards are in place and secure.
2.2.20 Test run the engine. Monitor and record the engine key parameters in the cold and hot running condition such as temperatures and pressures. Contractor to list what parameters are recommended to be checked.
2.2.21 Carry out housekeeping at work area.

2.3 Within a week of the engine servicing, the contractor shall issue a report on the findings for each engine serviced identifying any issues and/or recommendations. The report is to also include the test run checklist containing the key engine running data such as temperatures, vibrations, lube oil, fuel and other critical pressures/temperatures.

3 EVALUATION CRITERIA

3.1 Phase 1

Mandatory Requirements

At this phase, bidder's responses are reviewed against the below Mandatory Requirements. **Failure to comply with any of the Mandatory Requirements will lead to the bidder being disqualified and not be considered for further evaluation on Technical Requirements.**

No.	Description of the Mandatory requirements	Comply	Not Comply
3.1.1	Bidder to submit copy of valid COIDA Letter of Good Standing relevant to engine overhauls/ repairs/servicing. **The Bidder must submit copy of valid COIDA certificate.**		
3.1.2	The proposed technician undertaking the service/ maintenance must have a recognised qualification. **The Bidder must submit copy of technicians trade test certificate issued by a Quality Council for Trades and Occupations (QCTO) accredited organisation.**		

Pricing Schedule

P3301B	Total Cost
Technician	
Assistant	
Consumables	
Spares	
Subtotal Excl Vat	**R**
VAT @15%	**R**
Total Inc Vat 15%	**R**

P3310	Total Cost
Technician	
Assistant	
Consumables	
Spares	
Subtotal Excl Vat	**R**
VAT @15%	**R**
Total Inc Vat 15%	**R**

P1134A	Total Cost
Technician	
Assistant	
Consumables	
Spares	
Subtotal Excl Vat	**R**
VAT @15%	**R**
Total Inc Vat 15%	**R**

P1134B	Total Cost
Technician	
Assistant	
Consumables	
Spares	
Subtotal Excl Vat	**R**
VAT @15%	**R**
Total Inc Vat 15%	**R**

Williams Pump	Total Cost
Technician	
Assistant	
Consumables	
Spares	
Subtotal Excl Vat	**R**
VAT @15%	**R**
Total Inc Vat 15%	**R**

Description	**Total Cost**
P3301B	
P3310	
P1134A	
P1134B	
Williams Pump	
Travel Fees **(Lump Sum)**	
Others (Specify Clearly)	
TOTAL FOR 5 PUMPS	**R**