

1. INVITATION TO SUBMIT A QUOTATION

1.1. Tenderers are hereby invited to submit tenders for Water and Sewer Pumps, Pump Stations and Pipeline Maintenance Contract for the duration of three (3) years at TNPA, Port of Ngqura, Port Elizabeth, South Africa.

- 1.2. Only tenderers who:
- have experience in similar work,
 - submit method statements
 - submit quality control plans

are eligible to submit quotations.

2. SCOPE OF WORKS AND GENERIC CONDITIONS OF CONTRACT

2.1. SCOPE OF WORKS

The basic scope of works comprises of the following works.

2.1.1. Routine and emergency maintenance of submersible V1339-T82 sewer pumps and AM 173. 13/2 T motors at all nine (10) sewer pump stations, with the following capacity:

Item No.	Sewer Pumps Type	Capacity	No.
a)	Homa Submersible Sewer Pump	13 KW	2
b)	Homa Submersible Sewer Pump	11 KW	3
c)	Homa Submersible Sewer Pump	3.4 KW	4
d)	B100 sewer pump	90KW	1

2.1.2. Routine maintenance of water pumps at TNPA Admin Building with the following capacity:

Item No.	Water Pumps Type	Capacity	No.
a)	Grundfos Water Pumps	4 KW	4

2.1.3. Monthly inspection and condition assessment of all sewer pumps and sewer mains at the following pump stations:

- Pump Station No. 2
- Pump Station No. 3
- Pump Station No. 6
- Pump Station No. 7
- Pump Station No. 8
- Pump Station No. 9
- Pump Station No. 11
- Concor Pump Station

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- eMendi Admin Building Pump Station
- B100 Pump Station

- 2.1.4. Monthly inspection and condition assessment of all water pumps at eMendi Admin Building.
- 2.1.5. Emergency maintenance on all sewer pumps, sewer mains and pump stations as and when required.
- 2.1.6. Emergency maintenance on all water pumps and pump stations as and when required.
- 2.1.7. Monthly servicing of all sewer and water pumps.
- 2.1.8. Repairs/Replacements of the following mechanical components as and when required:

Sewer pump stations

- Impeller
- Bearings
- Shaft
- Diffuser
- Casing
- Head
- Motor

Water pump stations

- Impeller
- Bearings
- Shaft
- Casing
- Head
- Motor
- Tiding control valve, 106 LCV

- 2.1.9. Repairs/Replacements of the following electrical components as and when required:

Sewer pump stations

- Kiosk
- Contactors – K/M contactor D 32/3 JQ 43B (220V, 40A contacts) or similar
- Relays – D4N-230AC 50/60Hz, 14 Pin Relay, D4N – 024AC, 24V coil 50/60Hz
- Float switches – 240V, 3 Wire
- Overload contactors – Electronic overload (0-60A)
- 3 phase circuit breakers – 32 Amp and 10 Amp
- Single phase breaker – 6 Amp
- Cables
- Relay – 220 V 11 pin Flip-flop relay
- Start buttons

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- Stop buttons
- Ampere meters – (0-80 Amp)
- Voltage meters – (0-500V)
- Relay base – 14 pin relay base
- Timers – DAC51 start delta timer and DAA51 Delay-on timer

Water pump stations

- Distribution board
- Contactors – AON PKZM01-10, XTPB01BC1
- Three (3) phase circuit breakers – 63 Amps
- Single phase circuit breaker – 6 Amps
- Relay – 8 Amps, 24 V input & 250 V output
- Relay – 24 V coil, 50 Hz
- AC transformer – 330 V input & 24 V output, 50/60 Hz, 15 VA
- Programmable timer switch – 20 Amps
- Power button
- Siren test button
- Enclosed isolator – ET32, 32A, AC 23A, 240/415 V.a.c, 50/60Hz, IP66, 3P, IEG60947-3
- VSD
- Float level switches
- Pressure switches
- Pressure valves

2.1.10. Drainage of septic tanks fortnightly, and drainage of all sewer pump stations during routine maintenance works, or as and when required.

2.1.11. Quarterly cleaning of screening bucket on all pump stations.

2.1.12. Sewer pipeline maintenance, unblocking of pipes and installation of new pipes as and when required for the following pipe sizes:

- 160mm ø gravity main
- 90 mm ø pumped main

2.1.13. Emergency pipe repairs as and when required at the following depths:

- 0 – 1.5m
- 1.5m – 2.5m

2.1.14. Maintenance of existing manholes and installation of new manholes as and when required.

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