

**RFP 21/22/11/Maintenance, Service and Repairs of Data
Centre Air Conditioning System/BM**

PART 3

| | |
|-----------------------------------|--------------|
| Specification | Annexure 'D' |
| BoQ | Annexure 'F' |
| Price Breakdown | Annexure 'H' |
| Statement of Similar Work Done | Annexure 'K' |

DETAIL SPECIFICATION MAINTENANCE OF AIR CONDITIONERS

Maintenance of air conditioners detailed specification.

Background:

The SAPO Limited requires a bidder/s to provide maintenance and repairs to the air conditioners and air conditioning system at the SAPO owned building.

The Data Centre is currently equipped with Precision Control air conditioning units which were installed in the early 1980's and during the 2012 period up until the current period have been improved with additional HVAC systems namely, Precision Control units, under-ceiling units plus underfloor evaporator units to maintain a constant temperature and humidity throughout the centre.

SAPO is under constant pressure to comply with regulatory requirements regarding its Information Technology Systems. Instability of the systems exposes the company to major risk. This is especially true at the Data Centre located at 7 Church Street

General property information:

| Site | |
|---|--|
| 1. Data Centre | |
| Brief property description (type and number of buildings,) | Offices |
| Total property size | 2,552 m ² |
| Contact Details of site manager / supervisor | 012 339 7459 |
| Name and physical address of building | 7 WF Nkomo (Church) Street, Pretoria CBD |

Equipment

| Pumps |
|--|
| Total units: 2 X Condenser water pump / 2 x chilled water pumps |
| |
| Central air conditioning equipment |
| Total units 2 x 3 x Trane air handling unit and remote condensers including checking of pipes, ducting and diffusers. |
| |
| Fans |
| Total units: Various extraction and blower fans x 5 |
| |
| Small type air conditioners (Window/wall/console and split type) |
| Total units: Various small split units x 1 |
| Daiken under ceiling 60000btu x 4 |
| Daiken under ceiling 38000btu x 12 |

| |
|--|
| Phoenix Underfloor refrigerator units x 4 |
| Alliance Portable units 12000btu x 4 |
| Chigo under ceiling 30000btu x 3 |
| Infinity under ceiling 24000btu x 5 |
| |
| Cooling towers |
| Total units: 2 X Cooling towers |
| |
| Climaventa I- AXU basic 50 units – 53kW Precision Control units |
| Total units = 6 |
| |
| Liebert System 3 - Total Units = 5 |
| |
| Apache RPO50a – Total Units = 2 |
| |
| Water treatment |
| Total: 1 X Water treatment system |

Specification (Scope of Works)

Liebert, Climeveneta and Trane air conditioning equipment

| | Monthly service |
|----|---|
| 1 | Visually inspect all components of plant for proper operation and report defects. |
| 2 | Check on any unusual plant noise. |
| 3 | Check for refrigerant and oil leaks. |
| 4 | Check oil heater operation. |
| 5 | Check on condition of filters. |
| 6 | Check condition of drives, pulleys and V-belts. |
| 7 | Check unloader operation and capacity control. |
| 8 | Check holding down bolts. |
| 9 | Check control settings. |
| 10 | Check timer set points and start delays. |
| 11 | Check safety devices. |
| 12 | Check heater banks, static pressure and air flow controls. |
| 13 | Check and clean condensate pans and drains. |
| 14 | Check head pressure, suction pressure and crankcase regulators. |
| 15 | Check and lubricate all linkages and moving parts. |
| 16 | Check and recalibrate all controls. |
| 17 | Check superheat of system, supply and return air temperatures. |
| 18 | Check oil pressure and oil level. |
| 19 | Check and lubricate all bearings. |
| 20 | Check rotation, speed and controls of condenser and evaporator |

| | |
|--------------------------------|--|
| | fan. |
| 21 | Check plenum's lights. |
| 22 | Check operation and setting of dampers. |
| 23 | Clean exterior and interior of equipment. |
| 24 | Clean condenser and evaporator coils. |
| 25 | Check and clean filters. |
| 26 | Check operation of humidifiers. |
| Electrical installation | |
| 27 | All work under this heading shall be carried out by a licensed electrician. |
| 28 | Clean out switchboards internally. |
| 29 | Check and tighten all connections within switchboard. |
| 30 | Visually check board wiring for damage. |
| 31 | Check and clean all starter contacts. |
| 32 | Visually check starter overload settings. |
| 33 | Check main switch door interlock. |
| 34 | Check operation of step controllers. |
| 35 | Check operation of pilot lights. |
| 36 | Check operation of voltmeters and ammeters. |
| 37 | Check operation of board ventilating fan if fitted. |
| 38 | Check operation of all switchboard panel latches. |
| Three monthly service | |
| 1 | Same as monthly service. |
| 2 | Check and recalibrate all safety devices- HP/LP control, oil pressure switches, and overloads. |
| 3 | Do efficiency test on compressors. |
| Yearly service | |
| 1 | Same as monthly and three monthly services. |
| 2 | Replace oil and oil filters on compressors. |
| 3 | Power wash condenser and evaporator coils. |
| 4 | Touch up paint work and check systems for corrosion. |
| 5 | Acid clean shell and tube condensers if necessary. |
| 6 | Do efficiency test on system. |

Fans

| | |
|----|--|
| | Monthly services: |
| 1 | Check for abnormal vibration and noise levels. |
| 2 | Check direction of motors. |
| 3 | Check and clean fan blades. |
| 4 | Check collars, pulleys, bearings and lubricate. |
| 5 | Check bearing temperatures. |
| 6 | Check V-belts and couplings. |
| 7 | Check belt tension and pulley alignment. |
| 8 | Check and tighten pulleys and fans on shafts. |
| 9 | Check fan and unit mountings. |
| 10 | Take amperages and check electrical connections. |
| 11 | Clean equipment and check fan corrosion. |

| | Yearly service |
|----|---|
| 1 | Remove unit to workshop and power wash condenser and evaporator. |
| 2 | Clean or replace filter. |
| 3 | Oil fan motors and moving parts. |
| 4 | Check unit and compressor for vibration (compressor and fan mountings). |
| 5 | Check drainage ports. |
| 6 | Check controls and all electrical functions. |
| 7 | Treat pans for corrosion if necessary. |
| 8 | Check superheat. |
| 9 | Check amperage of compressor, heater and fan motor. |
| 10 | Wash outside of unit with suitable detergent. |
| | Monthly service |
| 1 | Clean or replace filter. |
| 2 | Check drains. |
| 3 | Check controls and functions. |
| 4 | Check operation of cooling and heating. |
| 5 | Check for vibrations. |

NB: SPLIT TYPE UNITS CANNOT BE REMOVED AND WILL BE SERVICED ON THE PREMISES

| | Monthly service |
|----|--------------------------------------|
| 1 | Drain and flush out sump and refill. |
| 2 | Clean water strainer. |
| 3 | Check sprays nozzles. |
| 4 | Check eliminator plates. |
| 5 | Check conditions of fans. |
| 6 | Check coupling for alignment. |
| 7 | Check drives belts. |
| 8 | Check bearings. |
| 9 | Clean air intake screen. |
| 10 | Checks float control. |

| | Monthly service |
|---|--|
| 1 | Check glands, adjust or replace packing if necessary. |
| 2 | Check bearing for abnormal temperature and noise and report defects. |
| 3 | Lubricate bearings. |
| 4 | Check and clean drain pans and related drain piping. |
| 5 | Check condition of drive coupling. |
| 6 | Check direction motor. |
| 7 | Check motor bearings. |
| 8 | Check holding down bolts. |
| | Three monthly service |
| 1 | Check gland packing. |
| 2 | Check drainage system and clean. |

| | |
|---|---|
| 3 | Check bearing condition. |
| 4 | Check oil level and lubricate bearing if necessary. |
| 5 | Check coupling guard. |
| 6 | Check holding down bolts. |
| 7 | Check operating pressure. |
| 8 | Clean strainer. |
| 9 | Check coupling alignment. |

| | |
|----|--|
| | Monthly service |
| | Check and Record the Following: |
| 1 | Chilled water entering °C – leaving °C. |
| 2 | Condenser water entering °C – leaving °C. |
| 3 | Evaporator pressure (kPa). |
| 4 | Condenser pressure (kPa). |
| 5 | Oil pressure (gauge) (kPa). |
| 6 | Oil temperature (sump) °C. |
| 7 | HP cut out (kPa) – cut in (kPa). |
| 8 | LP cut out (kPa) – cut in (kPa). |
| 9 | Oil pressure cut out (kPa) – cut in (kPa). |
| 10 | Anti-freeze cut out °C – cut in (kPa).0 |
| 11 | Overload present trip % - full load amps. |
| 12 | Operation of hot gas by-pass. |
| 13 | Operation of control thermostat - °C (off line). |
| 14 | Check electrical panel for loose connections. |
| 15 | Check condition of main contacts. |
| 16 | Check all timers for correct sequence and operation. |
| 17 | Check machine for leaks – tighten all flange bolts. |
| 18 | Clean out electrical and control panel – visually inspect machine for oil leaks. |
| | Major winter inspection – in addition to minor inspection |
| 1 | Carry out oil change. |
| 2 | Carry out oil filter change. |
| 3 | Condenser to be cleaned. |

ANNEXURE 'F'

Bill of Quantities (BoQ)

| SA. POST OFFICE DATA CENTRE WF NKOMO STREET PRETORIA AIR-CONDITIONING TO BE SERVICED AND MAINTAINED AT DATA CENTRE | | | | | |
|--|---|-----------------|------------------------------------|-------------------------------|------|
| AIR-CONDITIONING | | QTY of units | FREQUENCY required per annum | Rate for Works rendered | Cost |
| <u>MS SERVER ROOM - SECOND FLOOR</u> | | | | | |
| <u>MONTHLY SERVICE</u> | | | | | |
| Price for monthly service inspection as requested per specification | | | | | |
| SPLIT UNITS | | | | | |
| A | Daiken under ceiling 38000 btu (Unit Nrs: 2 - 6 & 8 - 12) | 8 | 7 | R - | R - |
| UNDER FLOOR BLOWERS | | | | | |
| A | CLIMAVENETA I-AXU BASIC 50 53KW (Unit Nrs: A -H) 3 working only | 3 | 7 | R - | R - |
| B | LIEBERT SYSTEM 3 (Unit Nrs 8 - 14) 5 only working | 5 | 7 | R - | R - |
| C | APACHE RPO50a (Unit Nr: 2) | 1 | 7 | R - | R - |
| <u>QUARTERLY SERVICES</u> | | | | | |
| Price for Quarterly service as requested per specification | | | | | |
| SPLIT UNITS | | | | | |
| A | Daiken under ceiling 38000 btu (Unit Nrs: 2 - 6 & 8 - 12) | 8 | 4 | R - | R - |
| UNDER FLOOR BLOWERS | | | | | |
| A | CLIMAVENETA I-AXU BASIC 50 53KW (Unit Nrs: A -H) 3 working only | 3 | 4 | R - | R - |
| B | LIEBERT SYSTEM 3 (Unit Nrs 8 - 14) 5 only working | 5 | 4 | R - | R - |
| C | APACHE RPO50a (Unit Nr: 2) | 1 | 4 | R - | R - |
| <u>ANNUAL MAJOR SERVICE</u> | | | | | |
| Price for Annual Major service as requested per specification | | | | | |
| SPLIT UNITS | | | | | |
| A | Daiken under ceiling 38000 btu (Unit Nrs: 2 - 6 & 8 - 12) | 8 | 1 | R - | R - |
| UNDER FLOOR BLOWERS | | | | | |
| A | CLIMAVENETA I-AXU BASIC 50 53KW (Unit Nrs: A -H) 3 working only | 3 | 1 | R - | R - |
| B | LIEBERT SYSTEM 3 (Unit Nrs 8 - 14) 5 only working | 5 | 1 | R - | R - |
| C | APACHE RPO50a (Unit Nr: 2) | 1 | 1 | R - | R - |
| Sub total | | | | | R - |

LINK & NETWORK SERVER ROOM - SECOND FLOOR

MONTHLY SERVICE

Price for monthly service inspection as requested per specification

SPLIT UNITS

| | | | | | | | |
|---|--|---|---|---|---|---|---|
| A | Daiken under ceiling 60000 btu (Unit Nrs: 1 - 4) | 4 | 7 | R | - | R | - |
| B | Daiken under ceiling 38000 btu (Unit Nr:) | 1 | 7 | R | - | R | - |
| C | Infinity Inverter 24000btu (Unit Nrs 1 -3) | 3 | 7 | R | - | R | - |

UNDER FLOOR BLOWERS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A | CLIMAVENETA I-AXU BASIC 50 53KW (Unit Nrs: I - K) | 3 | 7 | R | - | R | - |
| B | APACHE RPO50a (Unit Nr: 1) | 1 | 7 | R | - | R | - |

UNDER FLOOR UNITS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A | Phoenix Refrigerator under floor unit EvapTEB030.1.E.44 (Unit Nrs: R1 - R4) | 4 | 7 | R | - | R | - |
|---|---|---|---|---|---|---|---|

QUARTERLY SERVICES

Price for Quarterly service as requested per specification

SPLIT UNITS

| | | | | | | | |
|---|--|---|---|---|---|---|---|
| A | Daiken under ceiling 60000 btu (Unit Nrs: 1 - 4) | 4 | 4 | R | - | R | - |
| B | Daiken under ceiling 38000 btu (Unit Nr:) | 1 | 4 | R | - | R | - |
| C | Infinity Inverter 24000btu (Unit Nrs 1 -3) | 3 | 4 | R | - | R | - |

UNDER FLOOR BLOWERS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A | CLIMAVENETA I-AXU BASIC 50 53KW (Unit Nrs: I - K) | 3 | 4 | R | - | R | - |
| B | APACHE RPO50a (Unit Nr: 1) | 1 | 4 | R | - | R | - |

UNDER FLOOR UNITS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A | Phoenix Refrigerator under floor unit EvapTEB030.1.E.44 (Unit Nrs: R1 - R4) | 4 | 4 | R | - | R | - |
|---|---|---|---|---|---|---|---|

ANNUAL MAJOR SERVICE

Price for Annual Major service as requested per specification

SPLIT UNITS

| | | | | | | | |
|---|--|---|---|---|---|---|---|
| A | Daiken under ceiling 60000 btu (Unit Nrs: 1 - 4) | 4 | 1 | R | - | R | - |
| B | Daiken under ceiling 38000 btu (Unit Nr:) | 1 | 1 | R | - | R | - |
| C | Infinity Inverter 24000btu (Unit Nrs 1 -3) | 3 | 1 | R | - | R | - |

UNDER FLOOR BLOWERS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A | CLIMAVENETA I-AXU BASIC 50 53KW (Unit Nrs: I - K) | 3 | 1 | R | - | R | - |
| B | APACHE RPO50a (Unit Nr: 1) | 1 | 1 | R | - | R | - |

UNDER FLOOR UNITS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A | Phoenix Refrigerator under floor unit EvapTEB030.1.E.44 (Unit Nrs: R1 - R4) | 4 | 1 | R | - | R | - |
|---|---|---|---|---|---|---|---|

Sub total

R -

FISH BOWL FRONT SERVER ROOM -DMZ &

POSTILLON - SECOND FLOOR

MONTHLY SERVICE

Price for monthly service inspection as requested per specification

SPLIT UNITS

- A Daiken under ceiling 38000 btu (Unit Nrs 1 & 7)
B Infinity Inverter 24000btu (Unit Nr 4)

| | | | | | |
|---|---|---|---|---|---|
| 2 | 7 | R | - | R | - |
| 1 | 7 | R | - | R | - |

QUARTERLY SERVICES

Price for Quarterly service as requested per specification

SPLIT UNITS

- A Daiken under ceiling 38000 btu (Unit Nrs 1 & 7)
B Infinity Inverter 24000btu (Unit Nr 4)

| | | | | | |
|---|---|---|---|---|---|
| 2 | 4 | R | - | R | - |
| 1 | 4 | R | - | R | - |

ANNUAL MAJOR SERVICE

Price for Annual Major service as requested per specification

SPLIT UNITS

- A Daiken under ceiling 38000 btu (Unit Nrs 1 & 7)
B Infinity Inverter 24000btu (Unit Nr 4)

| | | | | | |
|---|---|---|---|---|---|
| 2 | 1 | R | - | R | - |
| 1 | 1 | R | - | R | - |

| | | | | | | |
|------------------|--|--|--|--|---|---|
| <i>Sub total</i> | | | | | R | - |
|------------------|--|--|--|--|---|---|

EMC SERVER ROOM - SECOND FLOOR

MONTHLY SERVICE

Price for monthly service inspection as requested per specification

SPLIT UNITS

- A Daiken under ceiling 38000 btu (Unit Nrs 2)
B Infinity Inverter 24000btu (Unit Nr 5)

| | | | | | |
|---|---|---|---|---|---|
| 1 | 7 | R | - | R | - |
| 1 | 7 | R | - | R | - |

QUARTERLY SERVICES

Price for Quarterly service as requested per specification

SPLIT UNITS

- A Daiken under ceiling 38000 btu (Unit Nrs 2)
B Infinity Inverter 24000btu (Unit Nr 5)

| | | | | | |
|---|---|---|---|---|---|
| 1 | 4 | R | - | R | - |
| 1 | 4 | R | - | R | - |

ANNUAL MAJOR SERVICE

Price for Annual Major service as requested per specification

SPLIT UNITS

- A Daiken under ceiling 38000 btu (Unit Nr 2)
B Infinity Inverter 24000btu (Unit Nr 5)

| | | | | | |
|---|---|---|---|---|---|
| 1 | 1 | R | - | R | - |
| 1 | 1 | R | - | R | - |

| | | | | | | |
|------------------|--|--|--|--|---|---|
| <i>Sub total</i> | | | | | R | - |
|------------------|--|--|--|--|---|---|

| | | | | |
|--|--|---|------------------|---------|
| <u>UPS ROOM - GROUND FLOOR</u> | | | | |
| <u>MONTHLY SERVICE</u> Price for monthly service inspection as requested per specification | | | | |
| <u>UNDER FLOOR BLOWERS</u> | | | | |
| A | LIEBERT SYSTEM 3 (Unit Nrs 1 -3)All not working (Note: Unit 3 is chiller cooled) | 3 | 0 | |
| <u>SPLIT UNITS</u> | | | | |
| A | Chico Inverter 60000 btu (Unit Nr 1 - 3) | 3 | 7 | R - R - |
| <u>QUARTERLY SERVICES</u> Price for Quarterly service as requested per specification | | | | |
| <u>UNDER FLOOR BLOWERS</u> | | | | |
| A | LIEBERT SYSTEM 3 (Unit Nrs 1 -3)All not working (Note: Unit 3 is chiller cooled) | 3 | 0 | |
| <u>SPLIT UNITS</u> | | | | |
| A | Chico Inverter 60000 btu (Unit Nr 1 - 3) | 3 | 4 | R - R - |
| <u>ANNUAL MAJOR SERVICE</u> Price for Annual Major service as requested per specification | | | | |
| <u>UNDER FLOOR BLOWERS</u> | | | | |
| A | LIEBERT SYSTEM 3 (Unit Nrs 1 -3) All not working (Note: Unit 3 is chiller cooled) | 1 | 0 | |
| <u>SPLIT UNITS</u> | | | | |
| A | Chico Inverter 60000 btu (Unit Nr 1 - 3) | 3 | 1 | R - R - |
| | | | Sub total | R - |
| <u>OFFICE UNITS - GROUND FLOOR</u> | | | | |
| <u>MONTHLY SERVICE</u> Price for monthly service inspection as requested per specification | | | | |
| <u>SPLIT UNITS - Various Brands</u> | | | | |
| A | 1 x LG Plasma 12000btu (Ground Floor - Room G11) | 1 | 7 | R - R - |
| <u>QUARTERLY SERVICES</u> Price for Quarterly service as requested per specification | | | | |
| <u>SPLIT UNITS</u> | | | | |
| A | As listed above | 1 | 4 | R - R - |
| <u>ANNUAL MAJOR SERVICE</u> Price for Annual Major service as requested per specification | | | | |
| A | As listed above | 1 | 1 | R - R - |
| | | | Sub total | R - |

| | | | | | |
|--|--|---|---|------------------|-----|
| <u>PORTABLE UNITS</u> | | | | | |
| <u>QUARTERLY SERVICES</u> Price for Quarterly service as requested per specification | | | | | |
| <u>PORTABLE UNIT</u> A Alliance 12000 BTU | | 4 | 4 | R - | R - |
| <u>ANNUAL MAJOR SERVICE</u> Price for Annual Major service as requested per specification | | | | | |
| <u>PORTABLE UNIT</u> A Alliance 12000 BTU | | 4 | 1 | R - | R - |
| | | | | <i>Sub total</i> | R - |
| <u>PMC AREA/ROOM - GROUND FLOOR</u> | | | | | |
| <u>MONTHLY SERVICE</u> Price for monthly service inspection as requested per specification | | | | | |
| <u>UNDER FLOOR BLOWERS</u> A LIEBERT SYSTEM 3 (Unit Nrs 4 & 5) Not working | | 2 | 0 | | |
| <u>SPLIT UNITS</u> A Daiken under ceiling 38000 btu (Unit Nr 4) | | 1 | 7 | R - | R - |
| <u>QUARTERLY SERVICES</u> Price for Quarterly service as requested per specification | | | | | |
| <u>UNDER FLOOR BLOWERS</u> A LIEBERT SYSTEM 3 (Unit Nrs 4 & 5) Not working | | 2 | 0 | | |
| <u>SPLIT UNITS</u> A Daiken under ceiling 38000 btu (Unit Nr 4) | | 1 | 4 | R - | R - |
| <u>ANNUAL MAJOR SERVICE</u> Price for Annual Major service as requested per specification | | | | | |
| <u>UNDER FLOOR BLOWERS</u> A LIEBERT SYSTEM 3 (Unit Nrs 4 & 5) Not working | | 2 | 0 | | |
| <u>SPLIT UNITS</u> A Daiken under ceiling 38000 btu (Unit Nr 4) | | 1 | 1 | R - | R - |
| | | | | <i>Sub total</i> | R - |

| | | | | | | |
|---|---|---|---|---|---|-----|
| <u>CENTRAL AIR CONDITIONING EQUIPMENT</u> | | | | | | |
| <u>MONTHLY SERVICE</u> | | | | | | |
| Price for monthly service inspection as requested per specification | | | | | | |
| WATER COOLED CHILLERS INCLUDING PIPING ETC. | | | | | | |
| A | Carrier water cooled chillers | 2 | 0 | | | |
| WATER COOLED UNDER FLOOR BLOWERS | | | | | | |
| B | LIEBERT SYSTEM 3 | 2 | 0 | | | |
| <u>QUARTERLY SERVICES</u> | | | | | | |
| Price for Quarterly service as requested per specification | | | | | | |
| WATER COOLED CHILLERS | | | | | | |
| A | Carrier water cooled chillers | 2 | 0 | | | |
| WATER COOLED UNDER FLOOR BLOWERS | | | | | | |
| B | LIEBERT SYSTEM 3 | 2 | 0 | | | |
| <u>ANNUAL MAJOR SERVICE</u> | | | | | | |
| Price for Annual Major service as requested per specification | | | | | | |
| WATER COOLED CHILLERS | | | | | | |
| A | Carrier water cooled chillers | 2 | 0 | | | |
| WATER COOLED UNDER FLOOR BLOWERS | | | | | | |
| B | LIEBERT SYSTEM 3 | 2 | 0 | | | |
| <u>COOLING TOWERS</u> | | | | | | |
| <u>MONTHLY SERVICE</u> | | | | | | |
| A | Price for monthly service inspection as requested per specification | 2 | 7 | R | - | R - |
| <u>QUARTERLY SERVICES</u> | | | | | | |
| B | Price for Quarterly service as requested per specification | 2 | 4 | R | - | R - |
| <u>ANNUAL MAJOR SERVICE</u> | | | | | | |
| C | Price for Annual Major service as requested per specification | 2 | 1 | R | - | R - |
| <u>WATER TREATMENT SYSTEM</u> | | | | | | |
| <u>MONTHLY SERVICE</u> | | | | | | |
| A | Price for monthly service inspection as requested per specification | 1 | 7 | R | - | R - |
| <u>QUARTERLY SERVICES</u> | | | | | | |
| B | Price for Quarterly service as requested per specification | 1 | 4 | R | - | R - |

| | | | | | |
|---|---|---|---|------------------|-----|
| ANNUAL MAJOR SERVICE | | | | | |
| C) | Price for Annual Major service as requested per specification | 1 | 1 | R - | R - |
| <u>Trane air handling unit and remote condensers</u> | | | | | |
| MONTHLY SERVICE | | | | | |
| A) | Price for monthly service inspection as requested per specification (Nrs 1 -3 | 3 | 7 | R - | R - |
| QUARTERLY SERVICES | | | | | |
| B) | Price for monthly service inspection as requested per specification (Nrs 1 -3 | 3 | 4 | R - | R - |
| ANNUAL MAJOR SERVICE | | | | | |
| C) | Price for monthly service inspection as requested per specification (Nrs 1 -3 | 3 | 1 | R - | R - |
| | | | | <i>Sub total</i> | R - |

| | | | | |
|---|---|------|------------------|--------------|
| CONTROLS AND AIR COMPRESSORS | | | | |
| Johnson control system with dual air compressors (pneumatic) | | | | |
| MONTHLY SERVICE | | | | |
| A | Price for monthly service inspection as requested per specification | 1 | 0 | |
| QUARTERLY SERVICES | | | | |
| B | Price for Quarterly service as requested per specification | 1 | 0 | |
| ANNUAL MAJOR SERVICE | | | | |
| C | Price for Annual Major service as requested per specification | 1 | 0 | |
| FANS | | | | |
| Various extraction and blower fans | | | | |
| MONTHLY SERVICE | | | | |
| A | Price for monthly service inspection as requested per specification | 5 | 7 | R - R - |
| QUARTERLY SERVICES | | | | |
| B | Price for Quarterly service as requested per specification | 5 | 4 | R - R - |
| ANNUAL MAJOR SERVICE | | | | |
| C | Price for Annual Major service as requested per specification | 5 | 1 | R - R - |
| QUARTERLY SERVICES BMS | | | | |
| D | Price for Quarterly service as requested per specification | 1 | 0 | |
| | | | Sub total | R - |
| INSPECTION AND TESTING | | | | |
| Allow for complete inspection and testing of all units, supplying in-depth parts and technical report for the repairs. | | | | |
| A | We require a detailed report on all equipment with the required repairs to have all units operational at a 100% | ITEM | 1 | R - R - |
| | | | Sub total | R |
| COST SUMMARY | | | | |
| Sub total | | | | R - |
| Prvisional Amount | | | | |
| Provisional Repairs to Existing Units. Provisional amout to used as per the descretion of SAPO and deducted from the contract amount if not required. | | | | R 320 000,00 |
| 15% VAT | | | | |
| TOTAL COST EXCLUDING VAT FOR SERVICING,MAINTENANCE & REPAIRS | | | TOTAL | R - |

PRICE ADJUSTMENT

RFP 21/22/11/MAINTENANCE, SERVICE AND REPAIRS OF DATA CENTRE AIR CONDITIONING SYSTEM/BM

1. Bidders shall give a percentage breakdown of the cost elements and, where applicable, indicate which indices (e.g. indices published by SEIFSA or the Central Statistical Services or any other reputable authority) will be used as a basis for calculation of price adjustments. The frequency of price adjustments (e.g. annually, six monthly or quarterly) must also be stated.

*EXAMPLE

*EXAMPLE

*EXAMPLE

*EXAMPLE

| | | | | | |
|-----------------|-------|---|--------------|--------|-------------|
| * Fixed Portion | 20 % | Consumer Price Index, Table D1, all income groups | October 2000 | 943,4 | Annually |
| * Labour | 40 % | Seifsa Table C3, All hourly paid employees | April 2001 | 6927,7 | Six monthly |
| * Transport | 40 % | Seifsa Index, Road Freight Costs, Table L | January 2001 | 13 590 | Six monthly |
| * TOTAL | 100 % | | | | |

| Cost Component | | Relevant Indices | Base Date | Base Index | Adjustment Frequency |
|----------------|------|---|-----------|------------|----------------------|
| Description | % | | | | |
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| TOTAL | 100% | NOTE: Attach additional pages should the space provided be insufficient. | | | |

Bidders have to note that:

- **The cost breakdown stipulated above (refer *) is only an example of the type of information required;**
- any application for a price adjustment must contain full particulars of the factors responsible for the cost changes and the relevant application shall also be accompanied by such documentary proof as may be required by the Post Office;
- applications for provisional price adjustments, or claims based on provisional indices are not acceptable to the Post Office and will not be considered; and
- if prices are based on price lists from other suppliers, certified copies of these price lists must be submitted.



Annexure 'K'

STATEMENT OF SIMILAR WORKS COMPLETED

A Due Diligence may be conducted by SAPO on but not limited to the information provided below.

| No. | Name of Company | Contact Person | Contact No. | Type of Service | Start Date | End Date |
|-----|-----------------|----------------|-------------|-----------------|------------|----------|
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Bidders are requested to provide references letter/s supporting the above.

.....
SIGNATURE (OF BIDDER)

.....
NAME IN CAPITALS