

## SCOPE OF WORK

Three-month contract for air con & other appliances corrective maintenance including, services & repairs in all municipal buildings as and when required.

### SPECIAL NOTES

- a) Bidders are requested to carefully study this document, familiarise themselves with it and download it before the site briefing date.
- b) Be represented by “competent and or accredited personnel” onsite briefings for clarifications and understanding the nature of work entailed.

### 1. Specification

#### 1.1 Equipment

Equipment to maintain includes:

- a) air conditioners
- b) Heat pumps
- c) Air curtains

#### 1.2 Call outs

- a) Suppliers must have enough personnel to attend callouts as and when required within a maximum period of two (2) hours.
- b) Technicians to keep enough useful spares such as remotes, batteries, block connectors, isolators, short lengths of pipes, insulation, gas, screws, rawl bolts nuts etc. on their vehicle to reduce equipment non-productive time.
- c) Ensure that price for call outs is fixed for the duration of contract and includes:
- d) Hourly rate for the air con technician and his/her assistant attending such complain, to diagnose and trouble shoot such unit including minor works which include resetting of a tripped circuit breaker, clear error codes and replacement of batteries for remote.
- e) Excludes travelling to other areas other than Richards bay town, see bill no for travelling
- f) For measure repairs refer to paragraph three (3) above.

#### 1.3 Services

Periodic services to air conditioners and equipment provided in this document to prevent equipment breakdown.

##### a) Services shall include

Air con services are scheduled to be carried out on quarterly bases i.e (every three months) and shall be carefully planned and conducted accordingly in all our municipal buildings amounting to 1200, and includes:

- i) Stripping of equipment clean filters
- ii) Wash units using approved chemical
- iii) wash drain trays and clear blocked drain pipe
- iv) Check for leaks on copper pipes and related accessories
- v) Replace defective capacitors

- vi) Attend to burnt wires, block connectors flair nuts etc
- vii) Top up gas where required
- viii) Check operation of drum fans and fan motors
- ix) Replace remotes
- x) Replace batteries for remotes
- xi) Excludes replacement of major components such as condenser, evaporator, compressor, and or drum fans.
- xii) Cost for labour shall be included on services and to includes rate for refrigeration mechanic and his/ her assistant but exclude regasing and equipment such as scaffolding

#### **1.4 Air con repairs**

- a) Major defects on major components listed on 2(a) xi above once identified, shall be reported to project leader with supporting estimate costs for replacement of such components.
- b) Dilapidated air cons full of rust shall be identified and reported to project leader and provide supporting estimate costs for its replacement.
- c) Such components "shall only be replaced" once an official order has been issued to the supplier.

#### **1.5 Reports**

Successful bidder is expected to provide detailed weekly reports to the project leader

- a) Reports to include

Total number of call outs during each successful week

- i) Number of appliances serviced, and or repaired indicating address and office number where appliance is located, and status quo for each appliance.
- ii) Reports shall be accompanied with a breakdown of cost incurred during that lapsed period together with supplier's invoices.
- iii) Replacement of remotes lost remotes and batteries shall be discussed with the project leader, and shall only be replaced once the go ahead has been issued.
- iv) Invoices shall be checked and approved by project leader for payment before they are submitted to SCM
- v) No invoices will be signed at SCM as they must be delivered to the project leader and he/she will hand deliver them to SCM for GRN.
- vi) Project leader is not responsible for payment of invoices and his/her duties end up when they've delivered to SCM for GRN.

#### **1.6 Travelling, labour & equipment**

- a) Travelling
  - i) No travel claims shall be made for services, call outs and repairs for air cons on buildings in Richards bay town.
  - ii) Suppliers will be reimbursed for travelling to other areas other than Richards bay town refer to bill no 7 on BOQ
  - iii) Travelling to remaining places listed on BOQ shall be claimed for a single return trip.

**b) Labour**

Labour cost shall be allowed for repairs only and not for services and or call outs, on Quotations

**c) Equipment**

Supplier to provide own general equipment such as basic tool, ladders, hose pipes, calibrated electrical testers and other testing equipment, lifting equipment, scaffolding and or aerial platforms.

- i) Equipment such as scaffoldings and or aerial platforms won't be required on standard single story buildings
- ii) Scaffolding and or aerial platforms shall only be allowed for elevated work carried out on multi story buildings.
- iii) Fixed cost for scaffolding to include, supply deliver on site and dismantling on completion
- iv) Fixed cost for aerial platforms to include supply and delivery to site

**1.7 Remotes & batteries****a) Remotes**

- i) Defective remotes will be replaced with new universal type complete with batteries, replacement cost to include supply and programming of new remotes note, for defective remotes old ones must be returned back to the project leader together with replacement form.
- ii) Missing and lost remotes shall be replaced once a "Remote, Remote battery request form" on DMS 1435050, has been completed by the end user and mailed to Building complaints subject to approval.

**b) Batteries**

- i) 9 & 12V batteries for instrumentation equipment shall be replaced immediately as when required without approval.
- ii) Replacement of 1.5 AAA remote Batteries shall be in terms of 1.7(b) iii below
- iii) Procedure for replacement of batteries shall be as in (1.7 (a) ii) above, once "Remote, Remote battery request form" on DMS 1435050, has been completed by the end user and mailed to building complaints subject to approval.
- iv) Supplier to get approval for 1.7 (b) iii above prior to such replacement.

**2. Electrical installation****2.1 Working on electrical installations**

- a) Electrical work must always be carried out and supervised by "competent personnel" in terms of SANS 10142 – 1 as revised, and strictly no live work to be carried out.
- b) Contractors to ensure that power supply to appliances they work on, is safely isolated, locked and tagged out at all times on isolators prior to working on appliances to prevent electrical shocks and or electrocution and also to meet requirements of electrical regulations.

- c) Also to ensure that respective circuit breakers feeding air con circuits are safely isolated, locked and tagged out at all times, when replacing such isolators terminating from distribution boards to prevent electrical shocks and or electrocution and also to meet requirements of electrical regulations.
- d) For replacement of circuit breakers, contractor to ensure that the main switch for the distribution boards is safely isolated, locked and tagged out at all times.
- e) Always use calibrated testers when carrying out required tests, to prevent electrical shocks, arcing, short circuits and or electrocution.
- f) Each individual air conditioner power point shall be independent from others and shall have its own individual circuit breaker and isolator, properly labelled as in 2.3 below, should this not be case note must be made and brought to the attention of the project leader.
- g) Air con point shall be terminated to the closest distribution board complete with conduits including couplings, adaptors, termination boxes, galvanised saddles fixed with plugs and screws against finished walls, and or roof rafters also house wire and or suffix cable with correct current carrying capacity for each air conditioner from the distribution board up to the isolator but excluding circuit breaker and isolator.
- h) Cable lengths shall be in full lengths from DB to the isolator and no joints will be acceptable.
- i) No single cables will be allowed in our distributions when adding new circuit's instead a full length of approved and bus bars shall be used.
- j) Distribution boards with full capacity shall be reported to the project leader to allow for upgrading of such distribution board with a bigger size, cutting of distribution board covers to add new is strictly prohibited as such act results in power trips when load capacity is exceeded.
- k) No curve 1 air con circuit breakers shall be permitted on DB's.

## **2.2 Air con isolators**

- a) Air con isolators must be lockable and be within arm's reach from the air conditioner in question.
- b) Isolators shall be water proof type as (MCE - HFP 3), with separable bases, cable terminations must be on bases with water proof grommets and or compression glands suitable for cables used.

## **2.3 Labelling**

- a) All isolators must be labelled accordingly, indicating appliance number, feeder distribution board and circuit breaker number.
- b) Evaporator must be labelled as specified in 2.7b above.
- c) Labelling to meet requirements of SANS 10142 and must be indelible.
  - i) Air cons

AC 2 DB H / CB 27
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### 3. Requirements for this RFQ

- a) Only contractors registered with
  - i) The department of labour (DOL) as an Electrical contractor in terms of the Occupational Health and Safety Act OHSACT, act 85 of 1993
  - ii) CIDB with a minimum grade 1ME and or above will be eligible for technical evaluation, failure to meet these requirements will result in your bids not considered.
- b) **Successful contractor is required to**
  - i) Attend safety induction provided by COU before commencing with installation work.
  - ii) Carry out required work within two (2) hours from the time callout has been actioned
  - iii) Provide app for work programme which will assist project manager to track time taken to attend to complaints as well completing each complain.
  - iv) Periodically report to project leader at least once a week with all work completed during the previous week and submit job cards for such work together financial reports including invoices (see 1.5 above)
  - v) Have triplicate job card books which will be signed by end user on completion of each installation, relocation and or replacement.
  - vi) Job cards to have unique numbers, date activity, building name, office number, equipment number, name and signature of installer, name and signature of end user confirming completed work, description of activity carried out, kilometres claimed, and comments.
  - vii) provide own scaffolding allowed for in Preliminaries with relevant height where required.
  - viii) comply with OHSACT and wear relevant PPE, PPC at all times at work place as well as safety harnesses when working on heights.
  - ix) To provide own equipment such as testers with calibration certificates not older than six (6) months, ladders, scaffolding to reach highest lights on ceiling and against exterior walls.
  - x) Carry out required tests in the presence of the project leader using calibrated testers
  - xi) Calibration certificates required above are key elements for “Electrical installation tests” and serves as gate keepers.

### 4. Defects liability Period and warranties

- a) Contractor required to carry out a three (3) month contract for maintenance of air cons and other equipment included in this RFQ.
- b) Contractor is expected to deliver quality work at all times and will be fully responsible for appliance failures recurring thereafter.
- c) Contractor will be liable for return jobs and shall attend to them immediately after the equipment failure and no cost to COU.
- d) COU reserves the right to terminate contract for underperforming contractors

### 5. Technical Evaluation Criteria

Companies will be technically evaluated as follows and only companies with a score of 70 points and above will be considered:

KEY ASPECT OF CRITERION	BASIS FOR POINTS ALLOCATION	MAX POINTS	VERIFICATION METHOD
Experience and record of company's accomplishment of company.	5 and above Successfully completed projects years and more experience on Electrical installation projects	20	Award letters, purchase orders and or completion certificates
	3 Years and more experience on Electrical installation projects	10	Award letters, purchase orders and or completion certificates
	1 Year and more experience on Electrical installation projects	5	Award letters, purchase orders and or completion certificates
	No awards or failure to submit required documents	0	Award letters, purchase orders and or completion certificates
Air con technician	Qualified technician with 5 years' experience	20	Certified copies of qualifications and a Detailed CV
	Qualified technician with 2 years' experience and above	10	Certified copies of qualifications and a Detailed CV
	Qualified technician with 1-year experience and above	5	Certified copies of qualifications and a Detailed CV
	No Qualification or failure to submit required documents	0	Certified copies of qualifications and a Detailed CV
Accredited electrician	Accredited electrician with wireman's license and 5 years' experience	20	Certified copies of qualifications and a Detailed CV
	Accredited electrician with wireman's license and 3 years' experience	10	Certified copies of qualifications and a Detailed CV
	Accredited electrician with wireman's license and 1 year experience	5	Certified copies of qualifications and a Detailed CV
	No Qualification or failure to submit required documents	0	Certified copies of qualifications and a Detailed CV
Compliance with CIDB - Electrical	Registration as an electrical contractor	20	Proof of registration with CIDB with a minimum stage 1EB and above
	No registration or failure to submit required documents	0	Proof of registration with CIDB with a minimum stage 1EB and above
Total		80	

## 6. Table A – Schedule of Prices

Table A - Services, repairs and call outs

No	Description	Unit	Qty	Unit cost	Total
Bill no 1	Preliminaries and generals				
1.1	OHSACT requirements including safety file, PPE, and other safety related cost	sum	1		
1.5	Allow for work programme	month	3		
Subtotal for Bill no 1 carried forward to summary					
Bill no 2	Call outs (See 1.2 above)				
2.1	Total Call-out and fault finding cost on central and ducted air conditioning plants. NOT an hourly rate	ea	1		
2.2	Call-out and fault finding cost on split air conditioners under-ceiling, mid-wall split and console units, and cassette units. NOT an hourly rate	ea	1		
2.3	Call-out and fault finding cost on a de humidifier, not an hourly rate	ea	1		
2.4	Call-out and fault finding cost on VRV units, not an hourly rate	ea	1		
2.5	Call-out and fault finding on heat pumps, not an hourly rate	ea	1		
2.6	Call-out and fault finding on hydro boiler units, not an hourly rate	ea	1		
Subtotal for Bill no 2 carried forward to summary					
Bill no 3	Cost for services including all related costs, Note: attach copy of service reports (See 1.3 and 1.5a respectively )				
3.1	Services on Split units from 9000 BTU'S to 32000 BTU'S	ea	1		
3.2	Services on Under ceiling units from 18000 BTU'S to 60 000 BTU'S	ea	1		
3.3	Services on Cassete units from 12 000 BTU'S to 60 000 BTU'S	ea	1		
3.4	Services on window units from 9 000 BTU'S to 30 000 BTU'S	ea	1		
3.5	Services on Richards bay civic central air con units	ea	1		
3.6	Services on VRV units at various sites	ea	1		
3.7	Services on heat pumps	ea	1		
3.8	Servicing of air curtains	ea	1		

3.8	Services on De humidifier at Empangeni Museum	ea	1		
Subtotal for Bill no 3 carried forward					

Bill no 4	Cost for air conditioner repairs including items listed below, Note: a) Compressor / condenser / fan motors replacement measured elsewhere (see 1.4) that may be required, and must be reported to Superintendent for authorization before repairs commence. Attach copy of company service report				
4.1	Compressor replacement for all units				
4.1.1	9 000 btu single phase	ea	1		
4.1.2	12 000 btu single phase	ea	1		
4.1.3	18 000 btu single phase	ea	1		
4.1.4	24 000 btu single phase	ea	1		
4.1.5	32 000btu single phase	ea	1		
4.1.6	36 000 btu single phase	ea	1		
4.1.7	36 000 btu three phase	ea	1		
4.1.8	48 000 btu three phase	ea	1		
4.1.9	60 000 btu three phase	ea	1		
4.1.10	67 000 btu three phase for civic center central units	ea	1		
Subtotal for Bill no 4.4 carried forward to Bill number 4					

4.2	Condenser fan motors				
4.2.1	9 000 btu single phase	ea	1		
4.2.2	12 000 btu single phase	ea	1		
4.2.3	18 000 btu single phase	ea	1		
4.2.4	24 000 btu single phase	ea	1		
4.2.5	32 000btu single phase	ea	1		
4.2.6	36 000 btu single phase	ea	1		
4.2.7	36 000 btu three phase	ea	1		
4.2.8	48 000 btu three phase	ea	1		



4.2.9	60 000 btu three phase	ea	1		
Subtotal for Bill no 4.2 carried forward to Bill number 4					

4.3	Evaporator fan motors for split and under ceiling				
4.3.1	9 000 btu single phase	ea	1		
4.3.2	12 000 btu single phase	ea	1		
4.3.3	18 000 btu single phase	ea	1		
4.3.4	24 000 btu single phase	ea	1		
4.3.5	32 000btu single phase	ea	1		
4.3.6	36 000 btu single phase	ea	1		
4.3.7	36 000 btu three phase	ea	1		
4.3.8	48 000 btu three phase	ea	1		
4.3.9	60 000 btu three phase	ea	1		
Subtotal for Bill no 4.3 carried forward to Bill number 4					

4.4	Evaporator fan motors for cassette				
4.4.1	9 000 btu single phase	ea	1		
4.4.2	12 000 btu single phase	ea	1		
4.4.3	18 000 btu single phase	ea	1		
4.4.4	24 000 btu single phase	ea	1		
4.4.5	32 000btu single phase	ea	1		
4.4.6	36 000 btu single phase	ea	1		
4.4.7	36 000 btu three phase	ea	1		
4.4.8	48 000 btu three phase	ea	1		
4.4.9	60 000 btu three phase	ea	1		
Subtotal for Bill no 4.4 carried forward to Bill number 4					

4.5	Other equipment				
4.5.1	Air curtain	ea	1		
4.5.2	De humidifier	ea	1		
4.5.3	Heat pump	ea	1		
4.5.4	Replace 10l hydro boiler element	ea	1		
4.5.5	Replace 15l hydro boiler element	ea	1		
Subtotal for Bill no 4.5 carried forward to Bill number 4					

Subtotal for Bill no 4 carried forward to summary					
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Bill no 5	Auxiliary apparatus				
5.1	Supply and install touch pads to Console units all costs inclusive – 60 000 btu three phase	ea	1		
5.2	Supply and install touch pads to Console units all costs inclusive – 60 000 btu three phase (central plant unit)	ea	1		
5.3	Supply and install touch pads to Console units all costs inclusive – 48 000 btu three phase	ea	1		
5.4	Supply and install touch pads to Console units all costs inclusive – 36 000 btu	ea	1		
5.5	Supply and install touch pads to Console units all costs inclusive – 24 000 btu	ea	1		
5.6	Supply and install touch pads to Console units all costs inclusive – 18 000 btu	ea	1		
5.7	Supply and install touch pads to Console units all costs inclusive – 12 000 btu	ea	1		
5.8	Supply and install manual controls to Console units all costs inclusive.	ea	1		
5.9	Supply a universal remote controller complete with batteries	ea	1		
5.10	Supply and install pumps up to E 150	ea	1		
5.11	Supply and install pumps up to E 300	ea	1		
5.12	Supply and install pumps up to E 600	ea	1		
5.13	Supply and install hard Wire thermostat control 220v. With a) Three-minute compressor Delay. b) Auto Start-Single-Stage-Cooling only. c) 3 -speed Fan control, Power switch.	ea	1		
5.14	Replace defective remotes with new universal type complete with batteries (See 1.7a above)	ea	1		

5.15	Replace lost remotes with new universal type complete with batteries (See 1.7a above)	ea	1		
5.1.6	Replace 12v, 6F22 instrumentation battery (See 1.7b above)	ea	1		
5.17	Replace 9v. 6F22 instrumentation battery (See 1.7b above)	ea	1		
5.18	Replace AAA remote batteries (See 1.7b above)	ea	1		
5.19	Replace AA remote batteries (See 1.7b above)	ea	1		
5.20	And Temperature Range from 16° C to 30°C.	m	1		
5.21	Replace insulation - 3/8 inch per metre	m	1		
5.22	Replace insulation - 5/8 inch per metre	m	1		
5.23	Replace insulation - 3/4 inch per metre	m	1		
5.24	Replace insulation - 1/2 inch per metre	m	1		
5.25	Extra copper exceeding 3m - 3/8 inch per metre	m	1		
5.26	Extra copper exceeding 3m - 5/8 inch per metre	m	1		
5.27	Extra copper exceeding 3m - 3/4 inch per metre	m	1		
5.28	Extra copper exceeding 3m - 1/2 inch per metre	length	1		
5.29	20mm PVC Conduits including couplings, and glue fixed with Galvanised saddles at 1m 1 meter intervals per length (4m)	length	1		
5.30	25mm PVC Conduits including couplings, and glue fixed with Galvanised saddles at 1m 1 meter intervals per length (4m)	length	1		
5.31	16 x 16mm PVC Trunking per length including wall plugs/butterfly bolt and nuts per length (3m)	length	1		
5.32	16 x 40 mm PVC Trunking per length including wall plugs/butterfly bolt and nuts per length (3m)	length	1		
5.33	50 x 50 mm PVC Trunking per length including wall plugs/butterfly bolt and nuts per length (3m)	length	1		
5.34	100 x 40 mm PVC Trunking per length including wall plugs/butterfly bolt and nuts per length (3m)	length	1		
5.35	Galvanised brackets 450mm including (4) rawl bolts	length	1		
5.36	Galvanised brackets 550mm including (4) rawl bolts	kg	1		
5.37	Pressure testing	sum	1		
5.38	Regasing with R 22 per kg	kg	1		
5.39	Regasing with R 410A per kg	ea	1		
5.40	Seal wall entries using Silo foam and make look good per hole	ea	1		
Subtotal for Bill no 5 carried forward to summary					

Bill no 6	Labour				
6.1	Trade tested Electrician - artisan	hr	1		
6.2	Electrical assistant	hr	1		
6.3	Trade tested Refrigeration mechanic - artisan	hr	1		
6.4	Refrigeration mechanic assistant	hr	1		
Subtotal for Bill no 6 carried forward to summary					

Bill no 7	Transport and equipment cost ( Refer to 6.1 above)				
	Allow for travelling cost per 1 ton LDV per trip to the following areas: (Allow for a return trip)				
7.1.1	Transport - Richards bay area but excluding town	ea	1		
	Transport – Enseleni & Khoza area	ea	1		
7.1.2	Transport – Empangeni, Macekane, Felixton, Ngwelezane	ea	1		
7.1.3	Transport - Ngwelezane	ea	1		
7.1.4	Transport – Former Ntambanana municipal area	ea	1		
7.1.5	Transport – Esikhawini ( Esikhawini township & Cemetery, Southern depot)	ea	1		
7.1.6	Transport – Dube	ea	1		
7.1.7	Transport – Mkhwanazi, Vulindlela	ea	1		
Subtotal for Bill no 7.1 Carried forward Bill no 7					

Bill no 7.2	Equipment including scaffolding and Elevated platform				
7.2.1	Supply and erect scaffolding	Sum	1		
7.2.2	Aerial platform up to 20m reach including delivery and site establishment for Empangeni and Richards bay (Fixed price)	Sum	1		
7.2.3	Aerial platform up to 30m reach including delivery and site establishment for Empangeni and Richards bay (Fixed price)	Sum	1		
Subtotal for Bill no 7.2 Carried forward to Bill no 7					

Subtotal for Bill no 7 Carried forward to summary					
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Summary		
Bill No 1	Preliminaries and generals	
Bill No 2	Call outs	
Bill No 3	Cost for services including all related costs.	
Bill No 4	Cost for air conditioner repairs	
Bill No 5	Auxiliary apparatus	
Bill No 6	Labour	
Bill No 7	Transport and equipment cost	
Subtotal for Servicing of air conditioners Carried forward to tender summary		

## 7. Appendices

## d) Appendix A

COU Air con data sheet							
Installation date	Description	Address	Office number/name	Type of air con	Make	Size in BTU'S	Equipment no
11 Nov 2020	New installation	Buchanana	Council chamber	Under ceiling	Samsung	48000	AC 1281
11 Nov 2020	Relocation	Electrical workshop (Alton)	R 105	Split unit	Hitachi	12000	AC 0112
12 Nov 2020	Retrofit	Richards bay civic	Server room 1	Under ceiling	Daikin	24000	AC 2242
12 Nov 2020	Removal	Western depot (Empangeni)	Urban roads U22		Panasonic	9000	AC 0023
13 Nov 2020	Removal	Empangeni civic 2	Clinic	Central air con	Gree	60000	AC 0059

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 Company name

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 Responsible technician

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 Signature

DMS 1450392

**user**

8. Annexures
  - a) OHSACT
  - b) COU municipal standards
  - c) SANS 10142 – 1 as revised
  - d) Electrical Machinery Act
  - e) General building regulations
  - f) ISO 9001