



50051 Mfundi Mngadi Drive, Kwamakhutha, 4126  
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YOU ARE HEREBY INVITED TO QUOTE FOR REQUIREMENTS

PHYSICAL ADDRESS: 50051 MFUNDI MNGADI  
DRIVE, KWAMAKHUTHA

**CLOSING TIME:...12:00...**

**DESCRIPTION: .....FACILITIES AND INFRASTRUCTURE.....**

**THE FOLLOWING PARTICULARS MUST BE FURNISHED (FAILURE TO DO SO WILL RESULT IN YOUR OFFER BEING DISQUALIFIED)**

|                                                          |  |  |  |  |  |                                            |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------|--|--|--|--|--|--------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                                                          |  |  |  |  |  | <b>NAME &amp; ADDRESS OF BIDDER (FIRM)</b> |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>NAME OF BIDDER:</b>                                   |  |  |  |  |  |                                            |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>PHYSICAL ADDRESS:</b>                                 |  |  |  |  |  |                                            |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>CONTACT NUMBER</b>                                    |  |  |  |  |  |                                            |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>SIGNATURE OF BIDDER:</b>                              |  |  |  |  |  | <b>FACSIMILE NUMBER:</b>                   |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>CENTRAL SUPPLIER DATABASE REGISTRATION (CSD) NO.:</b> |  |  |  |  |  | <b>DATE:</b>                               |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>UNIQUE REGISTRATION REFERENCE:</b>                    |  |  |  |  |  |                                            |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                          |  |  |  |  |  |                                            |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                          |  |  |  |  |  |                                            |  |  |  |  |  |  |  |  |  |  |  |  |  |

[illegible]



CENTRAL OFFICE

50051 Mfundu Mngadi Drive, Kwamakhutha, 4126  
Tel. (031) 9057081 Fax: 0867625744 Email: SuamadoA.CKZCAO@KZNTVET.EDU.ZA

DECLARATION OF INTEREST

Any legal person, including persons employed by the "college<sup>1</sup>, or persons having a kinship with persons employed by the college, including a blood relationship, may make an offer or offers in terms of this invitation to quote (includes a price quotation, advertised competitive quote, limited quote or proposal). In view of possible allegations of favoritism, should the resulting quote, or part thereof, be awarded to persons employed by the college, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where- - the bidder is employed by the state; and/or - the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the quote(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the quote.

2. In order to give effect to the above, the following questionnaire must be completed and submitted with the quote.

2.1. Full Name of bidder/representative.....

2.2. Identity Number: .....

2.3. Position occupied in the Company (director, trustee, shareholder<sup>2</sup>): .....

2.4. Company Registration Number: .....

2.5. Tax Reference Number: .....

2.6. VAT Registration Number: .....

2.7. The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / persal numbers must be indicated in paragraph 3 below.

[TICK APPLICABLE]

2.8. Are you or any person connected with the bidder presently employed by the state?

|     |    |  |
|-----|----|--|
| yes | no |  |
|-----|----|--|

2.8.1. If so, furnish the following particulars: Name of person / director / trustee / shareholder/ member:

..... Name of state entity at which you or the person connected to the bidder is employed:..... Position occupied in the state institution: .....

.....Any other particulars:.....

2.8.2. If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector?

[TICK APPLICABLE]

|     |    |  |
|-----|----|--|
| yes | no |  |
|-----|----|--|

2.8.2.1. If yes, did you attach proof of such authority to the quote document?

(Note: Failure to submit proof of such authority where applicable, may result in The disqualification of your quote

|     |    |  |
|-----|----|--|
| yes | no |  |
|-----|----|--|



higher education  
& training

Department:  
Higher Education and Training  
REPUBLIC OF SOUTH AFRICA

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2.8.2.2. If no, furnish reasons for non-submission of such proof: .....

2.9. Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the college in the previous twelve months?

[TICK APPLICABLE]

|     |  |    |  |
|-----|--|----|--|
| yes |  | no |  |
|-----|--|----|--|



higher education  
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2.9.1. If so, furnish particulars:.....

2.10. Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the college and who may be involved with the evaluation and or adjudication of this quote?  
APPLICABLE]

[TICK

|     |  |    |  |
|-----|--|----|--|
| yes |  | no |  |
|-----|--|----|--|

2.10.1. If so, furnish particulars:.....

2.11. Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between any other bidder and any person employed by the college who may be involved with the evaluation and or adjudication of this quote?

[TICK APPLICABLE]

|     |  |    |  |
|-----|--|----|--|
| yes |  | no |  |
|-----|--|----|--|

2.11.1. If so, furnish particulars:.....

2.12. Do you or any of the directors / trustees / shareholders / members of the company have any interest in any other related companies whether or not they are bidding for this contract?

[TICK APPLICABLE]

2.12.1. If so, furnish particulars:.....

|     |  |    |  |
|-----|--|----|--|
| yes |  | no |  |
|-----|--|----|--|

3. Full details of directors / trustees / members / shareholders. NB: Coastal College will validate details of directors / trustees / members / shareholders on CSD. It is the suppliers' responsibility to ensure that their details are up-to-date and verified on CSD. If the Department cannot validate the information on CSD, the quote will not be considered and passed over as non-compliant according to National Treasury Instruction Note 4 (a) 2016/17.

### 4 DECLARATION

I, THE UNDERSIGNED (NAME).....CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2.

I ACCEPT THAT THE COLLEGE MAY REJECT THE QUOTE OR ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

|                |           |          |       |
|----------------|-----------|----------|-------|
| .....          | .....     | .....    | ..... |
| Name of Bidder | Signature | Position | Date  |

02409



**COASTAL**  
**KZN**  
**COLLEGE**  
Your Pioneering Centre of Excellence



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TEL: (031) 905 7000 FAX: (031) 905 1399 E-mail: cao.CKZCAO@KZNTVET.EDU.ZA

GL NO

## REQUISTION

FOR PURCHASE OF GOODS / SERVICES

Name of person requesting goods/services: G. Mthembu

Division: Facilities

[illegible]

SIGNATURE OF COMPLIER: [Signature] DESIGNATION: Facilities DATE: 09/01/26

MOTIVATION/COMMENTS: \_\_\_\_\_

SIGNATURE OF SUPERVISOR: Managgy DESIGNATION: Manager DATE: 09/01/26

**DEMAND SECTION:**

CONFIRMATION THAT THE SPECIFICATIONS ARE CORRECT

SIGNATURE OF OFFICIAL: [Signature] DESIGNATION: SCM DATE: 09/01/28

# Project: Electrical Works – DB Relocation & 3-Phase Supplies to Boiler Rooms

**Location:** Male & Female Residences (Boiler Rooms)

**Client:** Coastal KZN TVET College (Facilities)

**Service Provider:** To be appointed

**Date:** *[Insert]*

**Prepared for:** Zamokwakhe C. Mbatha

## 1) Scope of Work (SOW)

### 1.1 Objectives

- **Relocate an existing Distribution Board (DB) box** to a new position (same building), maintaining all existing circuits and compliance.
- **Provide a new 3-phase electrical supply** to the **Male Residence boiler room** from a point of connection approximately **10 m** away.
- **Provide a new 3-phase electrical supply** to the **Female Residence boiler room** from a point of connection approximately **30 m** away.
- **Supply, install, test, and commission** all materials, cables, and accessories. The **service provider** is responsible for all materials and workmanship.

### 1.2 Standards & Compliance

Works shall comply with:

- SANS 10142-1 (The Wiring of Premises)
- OHS Act & Construction Regulations
- SANS 1973 (earthing), SANS 164 (plugs), relevant SANS/SABS for cable types, enclosures, and breakers.
- College/Campus electrical standards if applicable.
- Issue **Certificate of Compliance (CoC)** upon completion.

### 1.3 Detailed Scope

#### A. Relocation of DB Box (Existing Building)

1. **Pre-work survey:** Identify existing circuits, loads, cable routes, and source supply. Photograph and mark-up.
2. **Isolation & safety:** Lock-out/tag-out, test for dead.
3. **De-install:** Carefully disconnect feeders and outgoing circuits; protect terminations.
4. **Move DB:** Install new mounting frame/backboard; fix DB level and secure.
5. **Re-route cables:** Extend/replace conductors to maintain compliance (jointing in IP65 boxes where necessary, but preference is new continuous runs).

6. **Upgrade where needed:** Replace damaged breakers, add spare ways and blanking plates; fit new gland plates and cable glands; ensure fault levels and thermal ratings are adequate.
7. **Labelling & schedule:** Update circuit schedules; engrave DB designation.
8. **Testing & commissioning:** Insulation resistance, continuity, earth loop, polarity, RCD trip tests. Restore supply.

### **B. 3-Phase Supply to Male Residence Boiler Room (≈10 m)**

1. **Point of Connection (POC):** Confirm spare capacity on upstream DB/MCC. Provide appropriately rated 3-pole breaker.
2. **Feeder cable:** Install 4-core copper XLPE/SWA/PVC from POC to boiler room isolator (approx. 10 m); size by design (see provisional BOQ).
3. **Earthing:** Provide dedicated earth or use SWA armour as CPC (subject to calc); bond to boiler plant and pipework.
4. **Isolator:** Install a lockable 3-phase rotary isolator near the plant.
5. **Containment:** Provide protective cable route (tray/conduit/trunking), saddles, cleats, and firestopping where penetrations occur.
6. **Termination:** Properly gland at panel and isolator; ferrules, lugs, heatshrink; torque to manufacturer specs.
7. **Testing/CoC:** As per SANS 10142-1.

### **C. 3-Phase Supply to Female Residence Boiler Room (≈30 m)**

Same as Section B, with adjusted cable length and potential upsizing for volt drop over 30 m.

## **1.4 Deliverables**

- Installed and commissioned DB (relocated).
- Two complete 3-phase supplies with local isolators (Male & Female boiler rooms).
- **As-built documentation:** Single-line diagram, circuit schedules, cable routes, test sheets, warranties, CoC.
- **Training/hand-over:** Briefing to maintenance team on isolation points and breaker schedules.

## **1.6 Quality Assurance & Testing**

- Visual inspection to SANS checklist.
- Electrical tests: continuity (R1+R2), insulation resistance, polarity, earth loop impedance, prospective short-circuit current, RCD trip time.
- Record torque settings for lugs/glands.
- Tag all cables and devices.

## **1.7 HSE & Risk**

- Method statements, risk assessments, PPE.

- Hot-work and confined-space permits if required.
- Housekeeping: barriers, signage, fire watch for hot works.
- Restore finishes and make good (plaster/paint where chased).

### 3) Provisional Design Guidance (to confirm on site)

- **Breaker & Cable Sizing:**

Example sizing for indicative purposes only:

- If boiler room load  $\approx 20 \text{ kW}$ , 3-phase @ 400 V  $\Rightarrow I \approx 29 \text{ A}$  (PF  $\sim 0.95$ ). A **40–63 A** breaker may be selected considering inrush/diversity, with **16–25 mm<sup>2</sup>** Cu SWA depending on installation method and volt drop.
- For **30 m** run, check volt drop (mV/A/m for selected cable), ambient temperature, grouping, and installation reference method.

- **Volt Drop Check:**

Keep within SANS 10142-1 limits (generally  $\leq 5\%$  total). Long runs (30 m) may require upsizing to **25–35 mm<sup>2</sup>** for boiler loads.

- **Protection Coordination:**

Confirm fault level at POC and select breaker curve/type accordingly. Ensure discrimination with upstream protection.

### 4) Payment & Measurement

- Payment based on **actual measured lengths** and **installed quantities** verified on site.
- Variations must be approved in writing with reasons (e.g., route changes, upsizing due to calculations).

### 5) Warranty

- Minimum **12-month workmanship warranty** and manufacturer warranties on equipment/cables.
- Defects liability: Service provider to rectify at no cost.

### 6) Required from Client / Site Before Finalization

Please share (or allow a site visit to confirm):

1. Boiler room loads (kW/amps) and diversity assumptions.
2. Available spare capacity at upstream DB/MCCs for both residences.
3. Preferred brands (breakers, isolators, cable suppliers).
4. Any campus standards for labelling, colours, and documentation.
5. Route constraints (indoor/outdoor, ceiling voids, trenches).

# UMLAZI V BOILERS INSTALLATION

## Bill of Quantities (BOQ)

### Notes:

- Quantities marked **Provisional** pending site measurement and load confirmation.
- Provide **unit rates**, **brand/model**, and **lead times** in your bid.
- Cable sizes below are **indicative**; adjust per final design calculations.

### 2.1 DB Relocation (Existing Building)

| Item  | Description                                                      | Unit        | Qty | Rate | Amount | Remarks                                      |
|-------|------------------------------------------------------------------|-------------|-----|------|--------|----------------------------------------------|
| 2.1.1 | Pre-work survey, mark-up, isolation/lock out                     | Lump Sum    | 1   |      |        | Safety setup & documentation                 |
| 2.1.2 | Relocation of existing DB (wall mount, reinstallation)           | No.         | 1   |      |        | Includes mounting hardware                   |
| 2.1.3 | Extension/replacement of outgoing circuits ( $\leq 10$ circuits) | Provisional | 1   |      |        | Allow for cable extensions, joints, ferrules |
| 2.1.4 | Replacement of damaged MCBs/blanking plates                      | Provisional | 1   |      |        | PC sum for minor upgrades                    |
| 2.1.5 | Cable glands & gland plates (various sizes)                      | Set         | 1   |      |        | For all entries                              |
| 2.1.6 | Labels & engraved nameplates; updated circuit schedule           | Set         | 1   |      |        | As built & panel ID                          |
| 2.1.7 | Testing & commissioning; CoC issuance                            | Lump Sum    | 1   |      |        | SANS 10142 1 tests                           |

### 2.2 3 Phase Supply – Male Residence Boiler Room ( $\approx 10$ m)

| Item  | Description                                          | Unit | Qty |  |  | Remarks                             |
|-------|------------------------------------------------------|------|-----|--|--|-------------------------------------|
| 2.2.1 | 3 pole MCB/MCCB feeder breaker (rating to suit load) | No.  | 1   |  |  | Provisional rating (e.g., 63–100 A) |
| 2.2.2 | 4 core Cu XLPE/SWA/PVC                               | m    | 10  |  |  | Final size per calc                 |

|       |                                                                   |          |    |  |  |                          |
|-------|-------------------------------------------------------------------|----------|----|--|--|--------------------------|
|       | cable (provisional 16–25 mm <sup>2</sup> )                        |          |    |  |  |                          |
| 2.2.3 | Dedicated earth conductor (Cu, 16 mm <sup>2</sup> ) OR armour CPC | m        | 10 |  |  | As design                |
| 2.2.4 | Cable containment (tray/conduit/trunking + fixings)               | m        | 10 |  |  | Route protection         |
| 2.2.5 | Cable glands, lugs, ferrules, heatshrink                          | Set      | 2  |  |  | Panel end & isolator end |
| 2.2.6 | Lockable 3 phase rotary isolator, IP65                            | No.      | 1  |  |  | Local isolation          |
| 2.2.7 | Labels & danger signs                                             | Set      | 1  |  |  | Compliant signage        |
| 2.2.8 | Testing, CoC for circuit                                          | Lump Sum | 1  |  |  | Test sheets included     |

### 2.3 3 Phase Supply – Female Residence Boiler Room (≈30 m)

| Item  | Description                                                          | Unit     | Qty |  |  | Remarks                             |
|-------|----------------------------------------------------------------------|----------|-----|--|--|-------------------------------------|
| 2.3.1 | 3-pole MCB/MCCB feeder breaker (rating to suit load)                 | No.      | 1   |  |  | Provisional rating (e.g., 63–100 A) |
| 2.3.2 | 4 core Cu XLPE/SWA/PVC cable (provisional 25–35 mm <sup>2</sup> )    | m        | 30  |  |  | Upsize for volt drop over 30 m      |
| 2.3.3 | Dedicated earth conductor (Cu, 16–25 mm <sup>2</sup> ) OR armour CPC | m        | 30  |  |  | As design                           |
| 2.3.4 | Cable containment (tray/conduit/trunking + fixings)                  | m        | 30  |  |  | Route protection                    |
| 2.3.5 | Cable glands, lugs, ferrules, heat shrink                            | Set      | 2   |  |  | Panel end & isolator end            |
| 2.3.6 | Lockable 3-phase rotary isolator, IP65                               | No.      | 1   |  |  | Local isolation                     |
| 2.3.7 | Labels & danger signs                                                | Set      | 1   |  |  | Compliant signage                   |
| 2.3.8 | Testing, CoC for circuit                                             | Lump Sum | 1   |  |  | Test sheets included                |

### 2.4 Earthing & Bonding

| Item | Description | Unit | Qty |  |  | Remarks |
|------|-------------|------|-----|--|--|---------|
|------|-------------|------|-----|--|--|---------|

|       |                                                          |     |   |  |  |                                              |
|-------|----------------------------------------------------------|-----|---|--|--|----------------------------------------------|
| 2.4.1 | Earth bars, clamps, and bonds to boiler plant & pipework | Set | 2 |  |  | One per boiler room                          |
| 2.4.2 | Earth rod & inspection pit (if required)                 | No. | 2 |  |  | Only if the measured earth impedance is high |

#### **2.5 Making Good & Miscellaneous**

| Item  | Description                                       | Unit            | Qty |  |  | Remarks             |
|-------|---------------------------------------------------|-----------------|-----|--|--|---------------------|
| 2.5.1 | Penetration firestopping (intumescent)            | Provis<br>ional | 1   |  |  | As required         |
| 2.5.2 | Wall chasing/patching/painting                    | Provis<br>ional | 1   |  |  | As required         |
| 2.5.3 | Transport, access equipment, scaffolds/ladders    | Lump<br>Sum     | 1   |  |  | Safe work at height |
| 2.5.4 | O&M manuals, as built drawings, test reports, CoC | Set             | 1   |  |  | Handover pack       |