



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

172Q/2024/25

**DESIGN, MANUFACTURE, SUPPLY, DELIVERY TO SITE, OFF-LOADING,
INSTALLATION, TESTING, COMMISSIONING AND MAINTENANCE OF
145 KV SWITCHGEAR AND ASSOCIATED EQUIPMENT (WOODSTOCK
SWITCHING STATION)**

Transmission System Development
Electricity Generation and Distribution
2025-02

Making progress possible. **Together.**

Outline

- Introduction
- Tender clarification by City of Cape Town
- Clarification questions received
- Questions from Tenderers

Introduction

- Compulsory meeting
- Emphasize certain key aspects of the tender and clarify areas of uncertainty. This is not a comprehensive discussion of the tender document.
- Unless a formal notice is issued by the CCT, the tender document is to be viewed as correct. Anything stated at the clarification meeting that could alter the tender document is therefore not enforced unless it is contained in a formal notice to tenderers.
- Closing date: 12 March 2025 @ 10:00

Tenderers must note that wherever this document refers to any particular trade mark, name, patent, design, type, specific origin or producer, such reference shall be deemed to be accompanied by the words “or equivalent”.

Tender Clarification by City of Cape Town

Location



Tender Clarification by City of Cape Town

Location

The site is accessible by public road and the tenderer is responsible to acquire the necessary transport permits and authorisations.



Tender Clarification by City of Cape Town Eligibility

1. CIDB Grading of at least **8EP**
2. Compliance with CCT SCM Policy and Procedures
3. Functionality
 - a) Key Personnel
 - b) Track Record of equipment
 - c) Track Record of tenderer
 - d) Maintenance department in SA
4. Compulsory clarification meeting
5. Good standing with the Bargaining Council
6. Type Test Certificates
7. Technical requirement and data sheets

Tender Clarification by City of Cape Town

Track record

Track record of equipment:

- **1. Track Record of Equipment (Manufacturer)**
 - Number of installations of similar equipment and similar scope/complexity with proven reliability commissioned : **50 installations worldwide**
- **2. Demonstrated Experience of Tenderer/Manufacturer**
 - Number of projects undertaken by tenderer in last 5 years of similar scope to the tender : 10 HV AIS and/or GIS substations complete with control plant

Tender Clarification by City of Cape Town

Key personnel

Tenderer must have the following key personnel in its permanent employment at the close of tender or alternatively, a signed undertaking from a specialist company having the required personnel (page 9 – 10):

- **Contractor representative**
 - A qualified **electrical engineering artisan/Technician/ Technologist/ Engineer/ project manager** who has undertaken at least **10 (ten) projects** of a **similar nature** as detailed in the Scope of Works.
- **Site agent**
 - A qualified electrical engineering **Artisan/Technician/ Technologist/Engineer** who has undertaken at least **10 (ten) projects** in the installation of **high voltage switchgear** and responsible for executing all work carried out in terms of this tender.
- **General Foreman / Construction supervisor**
 - The Foreman shall be responsible for supervising the site installation crew, and shall be **certified and accredited by the Original Manufacturer** of the switchgear as competent to oversee the installation work specified for the switchgear installation work envisaged in accordance with this specification.
 - The Foreman shall have undertaken **at least 5 (five) projects** in the **installation of high voltage switchgear** and responsible for executing all work carried out in terms of this tender.
- **Commissioning Engineer**
 - A qualified **electrical engineering Technician/Technologist/Engineer** with at least **5 (five) projects** in the **commissioning of installation of high voltage switchgear** and responsible for executing all work carried out in terms of this tender.

CVs of all employees to be included

Tender Clarification by City of Cape Town

Key personnel

Tenderer must have the following key personnel in its permanent employment at the close of tender or alternatively, a signed undertaking from a specialist company having the required personnel (page 9 – 10):

- **Contractor representative**

- A qualified **electrical engineering artisan/Technician/ Technologist/ Engineer/ project manager** who has undertaken at least **10 (ten) projects** of a **similar nature** as detailed in the Scope of Works.

CONTRACTOR'S REPRESENTATIVE	NAME: Johanette van der MerweNQF LEVEL 10			
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK	YEAR COMPLETED
1. City of Cape Town	Paardevlei switching station: Install 18 new GIS bays	Contracts Manager	R50 m	2022
2. City of Cape Town	Morgen Gronde switching station: Install 17 new GIS bays	Projects Manager	R60 m	2023
3. City of Cape Town	Triangle switching station: Install 16 new GIS bays	Contracts Manager	R65 m	2023
4. City of Cape Town	Paardevlei switching station: Install outdoor termination yard	Projects Manager	R5 m	2022

- This employee will score **0** points for functionality, since only 4 projects are listed.
- Generic CVs are not sufficient: the different projects must be detailed in order to score functionality
- The BEC cannot clarify further lists of projects. It must be included in the original tender submission

Tender Clarification by City of Cape Town

Pricing assumptions

Only the Schedule of Rates may be completed electronically as described in C2.13.11 of the Tender Data.

Pricing Assumptions (p.81)

- If the Tenderer wishes to complete the Schedule of Quantities on separate sheets, the Tenderer must use the same Item numbers and must tender for every Item. (Refer to clause 11 above) In other words, an EXACT REPLICA of the Schedule of Quantities as found in the tender must be used.
- The rest of the tender must be completed in non-erasable black ink, by hand

Tender Clarification by City of Cape Town

Pricing assumptions

Pricing Assumptions (p.81)

- Clause 2. Estimated quantities are set out in the Schedules of Rates. The final Contract Price shall be computed from the actual quantities of work done.
- Clause 5: A rate is to be entered against each item in the Schedules of Rates.
 - If a nil rate (i.e. “nil” or “0.00”) is considered that there is no charge for that particular item.
 - An item against which no rate (or e.g. a zero, a dash or the word “included” or abbreviations thereof) is entered, will also be regarded as a nil rate.

The Tenderer may be requested to clarify nil rates, or items regarded as having nil rates; and the Employer may also perform a risk analysis with regard to the reasonable of such rates.

Tender Clarification by City of Cape Town

Pricing assumptions

Pricing Assumptions (p.81)

- Clause 20.
 - The switchgear will be installed in phases, but all switchgear and relay panels should be shipped to Cape Town before starting with the removal of the first phase.
 - An advance payment will be made for all switchgear and relay panels once it is in storage in Cape Town (as per the rate allowed in C2.2 Schedules of Quantities Definite Work: Schedule 4, rate 4.13), in accordance with Sub-Clause 14.2 Advance Payment and 14.5 Plant and Materials intended for the Works.
 - Storage cost for contractor delays will not be paid.
- Clause 21: Design fees will be paid once all the required design drawings have been submitted and approved by the engineer (as per the rate allowed in C2.2 Schedules of Quantities Definite Work: Schedule 4, rate 4.10).

Tender Clarification by City of Cape Town

Optional work

- Schedule 1 – Maintenance cost and intervals
- Schedule 2 – Maintenance cost and intervals (alternative gas)
- Schedule 3 – Alternative gas

Tender Clarification by City of Cape Town

Technical clarification – Pressure relief

5.2.3 Overpressure created by arcing in an enclosure shall be relieved by means of bursting discs venting into the atmosphere. Pressure relief by collapse of internal gas barriers is not acceptable.

- ☞ The specification asks for a **pressure relief (vent) on each enclosure**, not only the circuit breaker enclosure.

Tender Clarification by City of Cape Town

Technical clarification – DC

- Schedule 4: 4.4 - 110V DC allowed in bill (if current battery supply is not sufficient):
Complete with Lead Acid Planté cells, battery stands, charger and DC distribution
 - SCS is supplied @ 110V DC
 - RTU is supplied by 110V DC,
 - If the RTU offered cannot be supplied by 110V DC, then also price separately for 48V DC system.
- DC system sizing will need to be done by the supplier as only they can determine this based on the equipment supplied.

Tender Clarification by City of Cape Town

Technical clarification – Earthing

- Substation earth mat is not part of this tender.
- See Clause 10 in Part 1A: Employer will bring the earth mat out at the corners of the basement onto a small earth bar
- The Contractor shall supply and install an earthing system to connect all equipment in the substation to the earth bars. Earthing connections to equipment included in this contract shall be provided under this contract.

Tender Clarification by City of Cape Town

Technical clarification – Relays and SCADA

- Remote RED's model & versions , to ensure whether existing remote relays can communicate with new relays for inter-tripping: RED 670 version 2.2.1
- Existing remote MicroSCADA details: MicroSCADA Rev 9.3
- Control centre details: ABB Network Manager
- Please ensure to comply to the requirements for relay inputs as per Volume 3A
- Schedule 2: 2.1 – 2.6 Control and Relay Panels allowed in bill:
- Six (6) Types / Variance specified :
 - Bus Coupler Panel (incl. UFLS Scheme)
 - Standard Feeder Panel (incl. Line diff and Bay controller)
 - Main Substation Feeder Panel (excl. Line diff, but includes inter-tripping scheme)
 - Transformer Feeder Panel (incl. Trfr diff, Line diff, TCP control & metering)
 - Transformer Panel (excl. Line diff, but with includes inter-tipping scheme)
 - Busbar and breaker fail panel

Tender Clarification by City of Cape Town

Technical clarification – Testing

- Site tests include a PD test

Tender Clarification by City of Cape Town

Implementation program

- This tender goes hand in hand with a building tender (for floor modifications) and HV cable tender (for new terminations);
- This building contract requires the final design of the switchgear platform;
- The existing switchgear will be removed in two phases to allow for modifications to the existing floor structure by others (apertures and floor reinforcing only).
- The contractor will get access to the existing switchgear to remove approximately five (5) existing bays & accessories, interlocking & earth switches - and then leave site for approximately twelve (12) weeks for the aperture modifications.
- Once the floor modifications are completed, the contractor will return to site to install and commission the first half of the new switchgear.
- The contractor shall then leave the site for the HV cable termination, approximately eight (8) weeks.
 - However, the commissioning engineer and other relevant personnel shall be available during this period for the individual feeder protection schemes (end-to-end tests and on-load tests) and energisation, as per the Contractor's scope of works.
 - Any equipment or tools left on site shall remain the responsibility of the Contractor.

Tender Clarification by City of Cape Town

Implementation program

- Site access will be given for delivery of the Section B switchgear approximately 64 days after Section A were installed and cold commissioned.
- Once the equipment is delivered, the contractor needs to make allowance for the cable contractor on site (approximately 2 weeks), for disconnection of the existing cables.
- The contractor will get access to the existing switchgear to remove the rest of the existing switchgear to allow the second phase of the floor modifications. This removal can only be done when the first half of the board is energised.
- On completion of the floor modification works the Contractor will commence installation and commissioning of the remainder of the new switchgear.
- After installation, the Contractor's commissioning engineer and other relevant personnel shall be available during the HV cable termination period, approximately eight (8) weeks, for the individual feeder protection schemes (end-to-end test and on-load test), as per the Contractor's scope of works.
- The new switchgear delivery shall be delivered in phases to align with the above. If the contractor wishes to receive the new switchgear in one batch from the factory he shall arrange for storage at a suitable facility at his own cost.

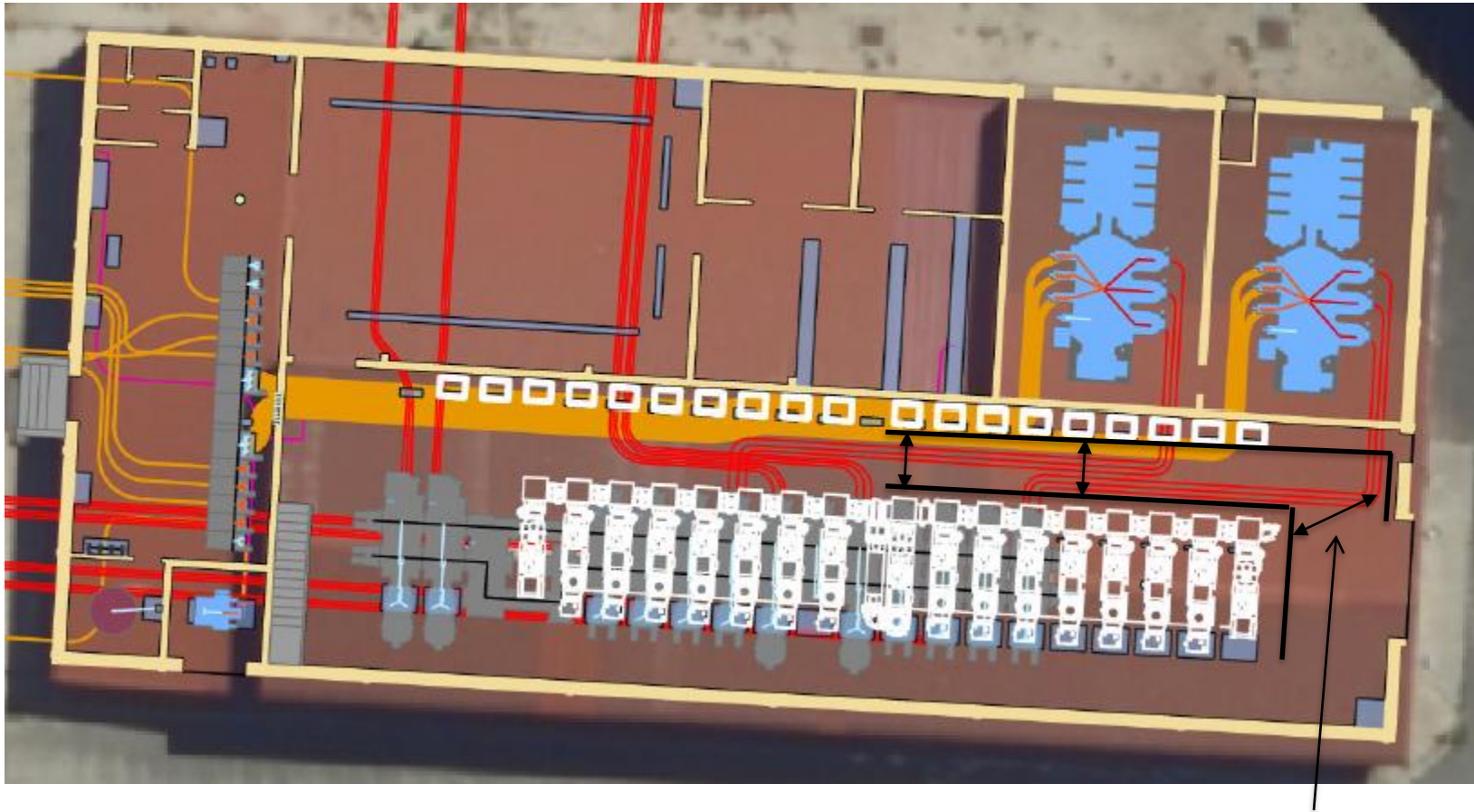
Tender Clarification by City of Cape Town

Implementation program

- It shall be noted that the existing buscoupler bay shall not be removed during the first phase
- The contractor must reinstate the interlocking and buszone protection schemes and reinstall the two existing earth switches.
- It shall be noted that the new switchgear design must allow for the installation of a buscoupler, seven (7) feeder bays and the bussection in the available space as per the switchgear layout shown of the tender drawings during the first phase of the installation.
- The minimum space between the new switchgear and the roller shutter door shall be such that the existing equipment can be removed safely and without damage to, or de-energising the new switchgear. The minimum distance from the roller shutter door shall be 3m.
- It shall be noted that the first half of the switchgear will be energised, and suitable safety precautions shall be put in place.
- All work shall be undertaken under the direct supervision of an NRS 040 certified person.
- Only one busbar shall be extended at a time, and provision shall be made for interruption required for switching operations.

Tender Clarification by City of Cape Town

Implementation program



Space to allow for removal
of old switchgear

Issues on previous tender submissions

- Changing the tender document (e.g. changing the units from “each” to “provisional sum”)
- CIDB status not active
- Pricing only 90% of the items (optional items & items “on instruction of the employer” **must** also be priced)
- Changing the conditions of contract (e.g. advance payment)

Tender Clarification by City of Cape Town Documents

Tender office issued:

- Tender document and Volume 1A
- Drawings (3)

Available electronically (upon request, provide proof of payment)

- Tender document and Volume 1A – pdf format only
- Drawings – pdf format
- BOQ – in excel

Questions from Tenderers

- Floor is open for questions.



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

Thank You

Making progress possible. Together.