



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

TENDER 43Q/2025/26

**DESIGN, SUPPLY, DELIVERY, INSTALLATION, PROGRAMMING, TESTING &
COMMISSIONING OF CONTROL & MANAGEMENT SYSTEM OF MV BULK ELECTRICAL
SUPPLY AND GENERATOR CONTROL SYSTEMS AND ASSOCIATED SERVICES**

**Non-Compulsory Tender Clarification Meeting
12 SEPTEMBER 2025**

Making progress possible. **Together.**

Agenda

1. Welcome and Introduction
2. Project Overview
3. General Tender Information
4. Conditions of Tender
5. Returnable Schedules
6. Contract Data
7. Technical
8. Questions



1. Welcome and Introduction

- Introduction: **All Attendees to fill out the attendance register with their names and company names**
- Employer: City of Cape Town, Cape Town Stadium

2. Project Overview

- Replacement and integration of generator control systems.
- Additions and alterations to MV switchgear, protection, and Neutral Earth Resistor (NER).
- Alterations and improvements to the generator diesel system.

3. General Tender Information

Tender Advertised	:	29 August 2025
Clarification Meeting	:	Non-Compulsory
Closing Date	:	29 September 2025 @ 13:00
Contract Period	:	240 Days
Tender Box	:	Box Number 230
Tender Queries	:	Finance.Tenders@capetown.gov.za

3. General Tender Information

Objectives:

- Align with technology changes
- Improve operations and future maintenance (redundency)

SCM Related (Lynne)

- CSD
- Vendor Registration
- CIDB
- HDI Goals

4. Conditions of Tender

- Functionality Criteria: Minimum Score of Responsiveness = **60 out of 100**
- Tenderer Relevant Project Experience (40)
 - No of relevant Projects (0-40) (0=0; 1=10; 2=20; 3=30;4=40)
- Electrical Engineer Qualifications (ECSA Registration)(20)
 - Registered Electrical Technologist (less than 5 years) = 5
 - Registered Electrical Technologist (More than 5 years) = 10
 - Registered Electrical Engineer less than 5 years = 15
 - Registered Engineer more than 5 years = 20
- Relevant personnel experience (40)
 - 1 – 4 projects completed = 20
 - 5 - 8 projects completed = 30
 - 9 or more = 40
- Page 12
- **Schedule 22A-22B**

Criterion	Weight
1) Tenderer Relevant Project Experience	40
2) Electrical Engineer Qualifications (ECSA Registration)	20
3) Relevant Engineer Experience (types of projects)	40

4. Conditions of Tender

- **Relevant Projects**

Disclaimer: The City of Cape Town reserves the right to determine other projects not listed as relevant projects as it sees fit for the project.

- Installation, integration, or upgrade of generator control systems (PLC-based or equivalent) for generators in the 750 kVA to 2.5 MVA range; or
- Grid-tied generator projects (synchronising with utility supply) within the 1–2.5 MVA capacity range; or
- Medium Voltage (MV) switchgear upgrades (11 kV class or similar), including protection systems, Neutral Earth Resistor (NER) modifications, and SCADA integration; or
- Full EPC projects where the contractor handled design, supply, installation, programming, testing, and commissioning of integrated MV electrical and generator systems.

- **Not considered Relevant Project:**

- High mast lighting installations.
- Public lighting or streetlight upgrades.
- Housing electrification projects (domestic or small commercial scale).
- Small standby generator installations (<500 kVA) for residential or light commercial use.
- Solar PV-only installations without MV integration or generator control.
- Low voltage distribution board upgrades without MV or large generator scope.
- General building electrical reticulation without specialised generator/MV integration.
- Small UPS installations (office/IT room scale).
- Minor electrical maintenance contracts (lamp replacement, small cable runs, etc.).
- Temporary event power setups unless they directly involved synchronised MV generators in the 1–2.5 MVA class.

4. Conditions of Tender

Criterion 1
Schedule 22 A, Details of Tenderers Relevant Project Experience.
 Letter of completion must be submitted with the tender at tender close

No	Project Name	Employer	Description of Relevant Project	Type and Involvement	Value of the construction Works in Rands (For info purpose)	Completion Date (<u>Handover</u> Date) (For info)	Project Reference (Name, Active contact details)
Example	Generator Controller Installation	Municipality Stellenbosch	Design, procure, install and commission generator controller (2.5MVA) for facility at 11 Dorp street Stellenbosch	EPC for entire scope of works excluding rigging work required to obtain access to site	R 15 million	31 January 2022	Name: John Dow- Project Manager Contact Details: 071 xxx xxxx
1							
2							
3							
4							

Criterion 2
 Tenderers must demonstrate that the proposed Electrical Engineering qualifications and ECSA certificate be submitted at Tender close. Failure to submit the qualification may lead to forfeiting functionality points.
 The required personnel must be a Professional Engineer (Pr. Eng) or professional Engineering Technologist (Pr. Tech Eng) registered with the Engineering Council of South Africa (ECSA).

Criterion 3
Schedule 22 B, Details of Electrical Engineers Relevant Experience.

Name:		Surname:		Current Employer:	

Post Graduate Experience – Relevant Project Record							
No	From (YYYY/MM/DD)	To (YYYY/MM/DD)	Project Name	Client	Role	Scope of responsibilities and experience (briefly describe <u>involvement</u> in relation to tender requirements)	Project Reference (Name, Active contact details)
1							Reference Person: Contact Details:
2							Reference Person: Contact Details:
3							Reference Person: Contact Details:
4							Reference Person: Contact Details:
5							Reference Person: Contact Details:
6							Reference Person: Contact Details:
7							Reference Person: Contact Details:
8							Reference Person: Contact Details:
9							Reference Person: Contact Details:

This table can be copied if there is more than one relevant personnel.

5. Returnable Schedule

- C5.2 Returnable schedules (page 138-181)
- DECLARATION IN RESPECT OF COMPLIANCE WITH LABOUR LEGISLATION (Schedule 8)
 - Evaluation criteria!
- FUNCTIONALITY CRITERIA (Schedule 22)
- SCHEDULE 28: DECLARATION OF TENDERED RATES SUBMITTED
 - Electronic version

6. Contract Data

- Contract duration 240 days
- Contract price not subject to any CPA
- Performance Security: 7%
- Guarantees to be provided at contract stage
- Delay penalties for the Works: R20,000 p.day

7. Technical

Control and Management System (CMS)

- New PLC-based system for MV switchgear.
- Comprehensive monitoring, control, protection, and communication functionalities.

Generator Control System

- Replacement of redundant PLC controller with a new PLC-based system.
- Enhanced control and protection features.

Fuel System

- Implementation of a dual-redundant diesel fuel supply system.
- Ensuring uninterrupted generator operation.

NER – Neutral Earth Resistor

- Additions to the control of the Neutral-Earthing Resistor (NER) of the step up transformer at the generator set.
- Additional discount switch to be installed to discount the Earth at the NER. Discount switch to be controlled by the centralised control system. Necessary sensing and control equipment to be installed.

7. Technical (continued)

Contractor Responsibilities

- **Design & Engineering**

Develop layout, schematics, and control system specifications.

Compliance with international and local standards.

Detailed design – consolidated – no ad hoc or separate information signed off by PrEng.

On company design template with revision control. Must prove requirements in contract has been met and comply with contract requirements

- **Installation & Integration**

Supply and install all required equipment.

Integration with existing infrastructure.

- **Testing & Commissioning**

Full system validation and functionality testing (including commission plan).

Submission of as-built documentation.

- **Training & Maintenance**

Training for City of Cape Town personnel.

Ongoing support for 12 months post-installation.

7. Technical (continued)

Design, Compliance & Safety

Adherence to

Occupational Health and Safety Act.
SANS and IEC standards.
Lockout/tagout procedures and arc flash safety.

Contractor to provide

Risk assessment included in tender – but will have to be updated based on risks identified by the Contractor. Method statements to be provided – if not provided in the design.
PPE and emergency response plans.

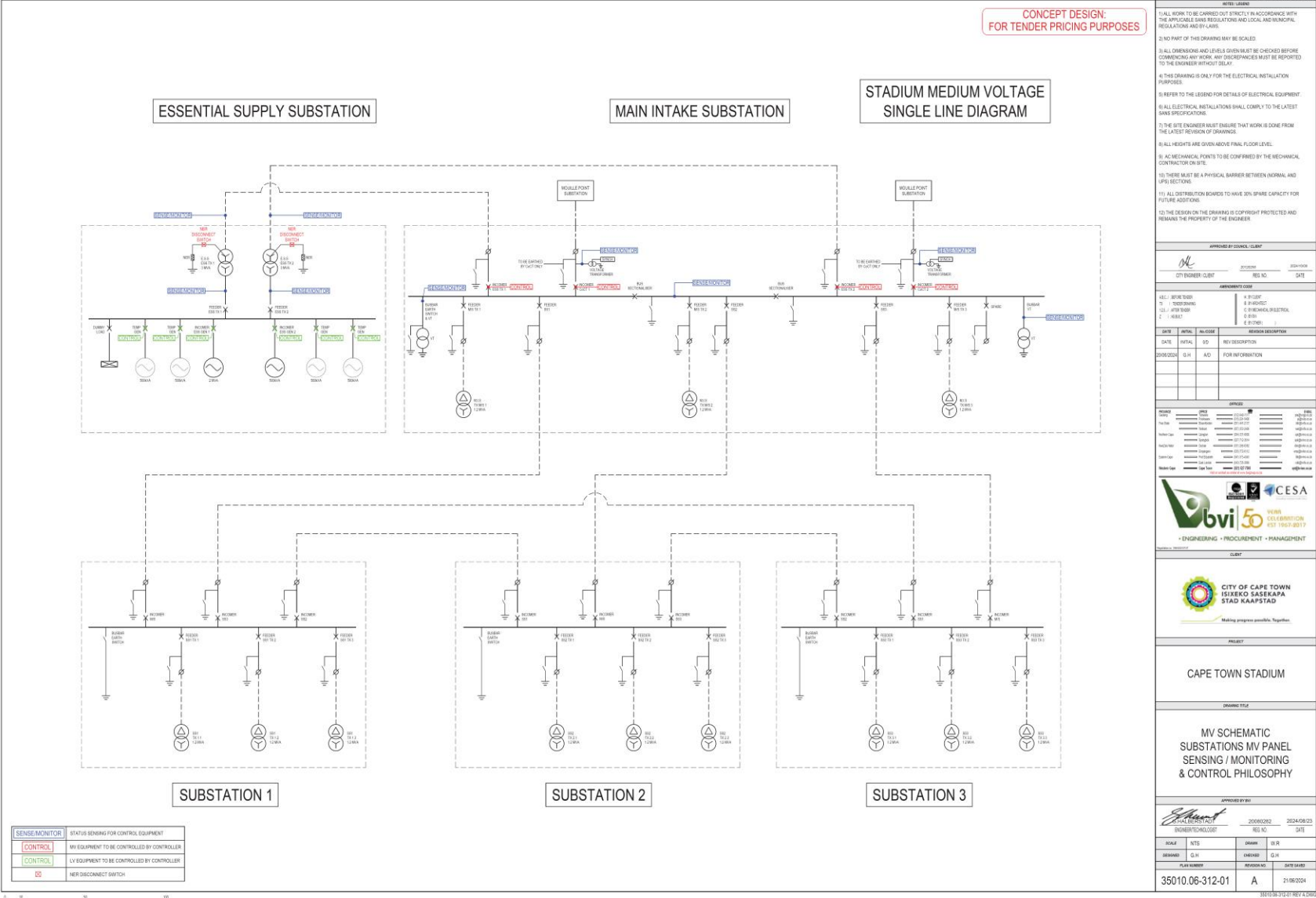
MV Switchgear – Installation methodology

Will require installation and testing method to ensure continual operation of site without risk of loss of supply.
Testing and commissioning of installation prior to swop over to ensure minimal issues and downtime.
Design review by Employer, as well as testing and commissioning methodology.

E0072, 7/11/2006/10/11



7. Technical (continued)



7. Technical (continued)



Fig A: Signage MV Switch Rom

7. Technical (continued)



Fig B: MV Switchgear in MV Switch Room

7. Technical (continued)



Fig C: Existing PLC Controllers on Incomer 1 and Incomer 2

7. Technical (continued)



Fig D: Existing PLC Contollers (Deap Sea 5560) on Incomer 1

7. Technical (continued)



Fig E: Existing PLC Controllers (Deap Sea 5560) on Incomer 2

7. Technical (continued)



Fig F: Existing cabinet with PLC Controllers (Deap Sea 5560) on Incomer 1 and 2

7. Technical (continued)



Fig G: Existing instructions on the basic operations of the Standby Generators

7. Technical (continued)



Fig H: Existing fuel control system HMI

7. Technical (continued)



Fig I: Existing fuel day tanks

7. Technical (continued)



Fig J: Existing fuel day tank – TANK 2

7. Technical (continued)



Fig K: Existing fuel transfer pumps

7. Technical (continued)



8. Questions





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Thank You

Making progress possible. Together.