



ELECTRICAL ENGINEERING SERVICES STANDARD OPERATING PROCEDURES

1. POLICY :

Installation of electricity supply (New, Modification, extension or conversions)

Strict Compliance with the relevant prescripts, in particular the following :

Chapter 10 of bylaws – Electricity Supply

Government Gazette No. 31975 dated 6th March 2009, Occupational Health and Safety Act 85/1993 – Electrical Installation Regulations

Regulation 5(5) and 5(6) (Design and Construction)

Regulation 7 (Certificate of Compliance)

Regulation 8(1) Commencement and permission to connect installation work and

Regulation 1 of the General Machinery Regulations, 1988.

Surcharge per Tariff of Charges (Paragraph X1.1.4, page 39).

On all electrical Installations as stated above, the Municipality shall charge 10% administration fee on Service Connection (Materials, labour and transport).

2. PROCEDURE

2.1.1 Application

(a) The electrical Contractor's submits a Notice of Commencement of Installation Work on behalf of the customer to the Central Administration Clerk. Annexure V

(b) The Central Administration Clerk checks application form to ensure that the electrical contractor is registered by the municipality, clearance letter from Finance, affix the municipality date stamp and submit to the Principal Clerk – Planning.

(c) In case of a conversation from conventional meter to prepaid meter the application shall be accompanied by a clearance certificate from Finance – Revenue Directorate stating that there is no outstanding debt in respect of the said property.

(d) The Principal Clerk – Planning signs off and submits the application with all the relevant documents including approved site / building plan to the Senior Electrical Engineering Technician.

2.1.2 Quotation

(a) The Senior Electrical Engineering Technician visits the site and perform the following:

- Identify the source from where electricity supply connection is to be obtained.
- Ensure if sufficient spare capacity is available at the point of supply identified.
- Assess the topography/nature of terrain/soil type across which overhead line/underground cable supply connection is to be constructed/installed.
- Measure up and make notes pertaining to materials requirements, distance between point of supply and application site/customer to ensure the calculation of estimated supply connection in respect of materials, labour and transport is accurate.
- Establish if any way leave consent approvals are required in cases where the service supply is to be carried across property of persons other than the applicant and/proximity of any other utility services likely to be encountered.
- Prepare sketch in relation to site plan provided indicating source from which supply connection is to be taken with line/cable route shown and measurements inserted.
- Prepare a detailed cost estimate on Excel costing template in respect of all cost elements being materials, labour and transport plus 10% administration fee in terms of Tariff of Charges. Annexure VI – VIII
- Ensure that the EC7 form attached to the Letter of Estimate is consistent in that final cost equates cost plus ten percent, and only service connection component amount is cited therein. Annexure IX.
- The letter of Estimate is referenced accordingly, the relevant documents attached and approved by the Director: Planning Customer and Fleet Management.
- The Senior Electrical Engineering Technician shall send the Letter of Estimate and all the attached relevant documents to the customer and the electrical contractor, and copies to Principal Clerk – Operations either north or South, Municipal manager and Controller Billing (Finance). Annexure VII – IX
- At the discretion of the municipality, cost estimate can be extended by further 30 days.
- Where the installation is done by the contractor at the behest of the customer, the customer pays the contractor directly and the Letter of Estimate should stipulate should stipulate same as this is regarded as a “private job”. Annexure IX.1
- No demand base component charge for additional meter/s where no increase in power supply capacity. Charge only in sectional title and special zones (commercial properties).

2.1.3 Payment

- Prior to commencement of any works, the customer shall pay the service connection to Finance, cite the reference code stated in the Letter of Estimate and the relevant Vote 946/509005 shall be credited in the Munsoft system of the municipality.
- For the Demand Based Component (“DBC”), credit the relevant Vote 946/509014 citing the reference code stated in the Letter of Estimate. Where the customer requested to pay in terms, the debtor is raised and the Acknowledgment of Debt (“AoD”) completed. Annexure X

2.1.4 Work-In-Progress

- Pursuant to payment for service connection, Vote 946/509005, Finance: Sundry Debtors Clerk generates a job card with Munsoft generated no. and forward it to Principal Clerk: Operations (North or South). Annexure XI
- The Principal Clerk: Operations opens a brown envelope/folder job card style and records the receipt no. and the amount thereof including DBC amount if any.

Annexure XI.1

- The Principal Clerk: Operations inserts documents in the brown folder as follows:
 - ✓ Letter of Estimate including all prescribed attachments thereto; and
 - ✓ Stores requisitions for materials from Stores and externally sourced materials.
- Ensure that the electricians have completed the pink forms/job card in respect of labour hours and compare same to the estimated hours, and variances be reasonably explained.
- The Principal Clerk shall capture this information onto the Excel spread sheet template.

2.1.5 Completion

- Arrangement is made between the Electrical Contractor responsible for the electrical wiring installation and the Manager: Network Operations for the electricity supply to be temporarily switched – on, so as to enable the Electrical Contractor and Installation Electrician (Registered Person) to perform the compliance testing of the electrical wiring installation.-(The electrical wiring installation is required to be made live temporarily for purpose of performing the Earth loop Impedance Test and Voltage Test as specified in the SANS 10142-1:2006 Wiring Code).
- The municipality Electrician: Network Operations responsible for temporarily switching-on the electricity supply is required to be present and witness the Earth Loop Impedance Test performed by the Installation Electrician (Registered Person) and append his signature adjacent to the Impedance reading measured which is entered onto the Certificate of Compliance (CoC).
- On completion of the compliance testing procedure the municipality electrician: Network Operations who was present during the compliance testing is responsible to ensure that the electricity supply is switched-off, all circuit breakers, metering equipment seals have been applied and the meter is locked pending the electricity supply connection being officially switched-on by the municipality authorized Meter Reader.
- At such time compliance testing process has been completed the municipality Electrician: Network Operations shall switch off the temporary electricity connection and seal off the municipality circuit breaker and metering equipment.
- Once the installation has been completed, the Electrical Contractor procedures an original CoC which is brought to the Electricity Department to enable the Administration Officer to record the CoC number, date received and meter number on the Notice of Commencement of Installation Work (Annexure V).
- The Administration Officer checks the CoC to ensure that the municipality Electrician: Network Operations has appended his \ her signature, identical to the one in the specimen of signatures of all electricians as supplied by the Manager: Network Operations (North/South) to the Administrative Officer, adjacent to the cell next to the Earth Loop Impedance test value.

- The original CoC is date stamped with the municipality stamp and two (2) copies of the date stamped original CoC are made.
- The original CoC and the copy – signed off by the administration Officer who endorses it with the wording FINANCE written thereof – are handed back to the Electrical Contractor subsequent to making a copy of the endorsed copy, whilst the other copy is retained by the Administration Officer for the purposes of the Department of Labour.
- The Administration Officer shall furnish a copy of the endorsed copy of the CoC to the Accountant: Revenue for control purposes in order to ensure that the property owner prevails to the municipality Finance Directorate to make application for the electricity supply connection and opening of the consumer account.
- The endorsed copy of the CoC is produced to the municipality Finance Directorate by the property owner in order to open the consumer account and pay the security deposit.
- In case the consumer fails to prevail to the municipality Finance Directorate to open the consumer account within fourteen (14) working days from the date of the CoC submission, the Finance Directorate shall advise the inspection team to visit the property in order to ensure that there has been no unauthorized and/ or illegal connection.
- Where the voltage exceeds **1 KV**, a person deemed competent in terms of paragraphs (b), (c) or (d) of the definition of a competent person in regulation 1 of the General Machinery regulations, 1988, or a person registered in a professional category in terms of the Engineering Profession Act, 2000, shall approve the design of that part of an electrical installation.
- Where the intention is to supply **five or more users** from a new point of supply, the user shall appoint an approved inspection authority for electrical installations or a person deemed competent in terms of paragraph (b), (c) or (d) of the definition of a competent person of regulation 1 of the General machinery Regulations, 1988, or a person registered in a professional category in terms of the Engineering Act, 2000, who shall ensure the compliance contemplated in sub regulation (1) from the commencement to the commissioning of the electrical installation.

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