



CONNECTION SERVICE POLICY 2021/22



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## 1 PURPOSE

To set guidelines to the internal and external stakeholders with regards to applications, quotations and construction of the electrical services.

## 2 SCOPE

The policy covers all the electrical connection services required by consumers within CENTLEC (SOC) Ltd hereafter referred to as Centlec, area of supply. To establish a common base for different customers during the application, payment and implementation stages of the delivery of connection point (Point of supply).

## 3 DEFINITIONS

All definition's as set out in the Electrical Installation Regulations of the Occupational Health and Safety Act (Act 85 of 1993), as amended, also applies to this policy. For the purpose of this policy, the most general definitions of the OHS Act as well as other relevant definitions are stated below.

### **“approved inspection authority for electrical installations”**

means a person or body approved by the chief inspector in terms of regulation 5 to carry out inspections, tests and investigations on electrical installations.

### **“electrical certificate of compliance”**



means a certificate, with a unique number obtainable from the chief inspector, in the form of annexure 4 (*not included in this document*) and issued by a registered person in respect of an electrical installation or part of any electrical installation or a certificate of compliance issued under the Electrical Installation Regulations, 1992.

**“consumer tariff”**

means the approved listed tariffs authorised by the Municipal Council, applicable to the consumption of electricity and chargeable to customers as specified in the license issued by the NERSA in terms of the Electricity Regulations Act of 2006.

**“electrical contractor”**

means a person who undertakes to perform electrical installation work on the behalf of any other person, but excludes an employee of such first-mentioned person.

**“electrical installation”**

means any machinery, in or on any premises, used for the transmission of electricity from the point of control to a point of consumption anywhere on the premises, including any article forming part of such an installation irrespective of whether or not it is part of the electrical circuit, but excluding –

- a) any machinery of the supplier related to the supply of electricity on the premises;
- b) any machinery which transmits electrical energy in telecommunication, television or radio circuits;
- c) an electrical installation on a vehicle, vessel, train or aircraft.



**“electrical tester for single phase”**

means a person who has been registered as an electrical tester for a single phase in terms of regulation 13, Electrical Installation Regulations (EIR) and who has been approved by the Chief Inspector for the verification and certification of the construction, testing and inspection of electrical installations supplied with a single phase electrical supply, excluding specialized electrical installations.

**“installation electrician”**

means a person who has been registered as an installation electrician in terms of regulation 13, Electrical Installation Regulations (EIR) and who has been approved by the chief inspector for the verification and certification of the construction, testing and inspection of any electrical installation, excluding specialized electrical installations.

**“point of control”**

means the point at which the electrical installation on or in any premises can be switched off by a user or lessor from the electricity supplied from the point of supply, or the point at which part of the installation on the premises can be switched off where different users occupy different parts of such premises.

**“point of supply”**

means the point at which electricity is supplied to any premises by a supplier.

**“electricity services costs”**



means the list of costs for the supply of respective electricity services, annually approved by the Municipal Council resolution.

**“supply terminals”**

in relation to machinery installed as a complete unit, means the terminals or connection clamps on such machinery where the external conductors supplying the machinery of electricity are terminated or connected.

**“valid certificate of compliance”**

means an electrical certificate of compliance which has been issued in accordance with these regulations and has been correctly completed in its entirety by a registered person.

**“Peri-urban areas”**

refer to all smallholdings, plots and farms in the electricity distribution area of CENTLEC. Technically it refers to areas where electricity is supplied via transformers from overhead 11kV networks, with the point of supply on the site boundary.





#### **4 GENERAL GUIDELINES FOR CONNECTIONS NOT EXCEEDING 500 kVA**

The general guidelines which are important when implementing the connection policy are as follows:

- 4.1 Application for an electricity service connection must be done in writing, by means of an official application form that is obtainable from the Customer Care offices at the Power Station building in Fort street and where applicable supported by an official letter;
- 4.2 The client must confirm the demand of the development via a consulting engineer or an electrical contractor, depending on the size of the development. The application will not be considered if the size of the connection is not mentioned or, for bigger developments (load requirement of more than 55.43kVA). Proof of load calculations shall be submitted with the application pack of documents.
- 4.3 No consideration shall be given to any application if it is not received in writing from the legal owner or his appointed representative with a letter of appointment by the owner;
- 4.4 The service costs must be paid in full, in advance, accompanied by a valid quotation provided by the Planning Section of CENTLEC;
- 4.5 The electrical supply to new connections shall only be switched on after the client has fulfilled the following requirements:
  - i. Energy deposit should be paid in full by means of cash payment or Bank guarantee (excluding prepaid metering);
  - ii. Contract for the Supply of Electricity should be signed by the owner at



- CENTLEC Finance Directorate (excluding prepaid metering), and
- iii. the client should produce the required Certificate of Compliance (through professional and registered electrical contractor/consultant), in terms of the Occupational Health and Safety Act (Act 85 of 1993);

4.6 Whenever a substation building is required (New/Existing development), it shall be an integral part of a building's design, and should not be located in the basement of buildings. For aesthetic reasons, placing substations, miniature substations and meter boxes next to buildings, or next to each other, must be avoided if at all possible; The following positions are recommended:

- i. Natural Ground Level
- ii. Street front on stand boundary

4.7 CENTLEC reserves the right to place the point of supply in such a way, to ensure optimal utilisation of the electrical infrastructure;

4.8 An estimate amount shall be payable for any service which cannot be accommodated within the standard electricity service costs;

4.9 Only one point of supply shall be provided per erf, including consolidated and notarial connected erven, except for peri-urban areas where technical limitations limit the length of low voltage cables. In the case where structures are more than 300 meters apart, or as otherwise approved by the Planning Engineer, a second point of supply will be allowed;



- 4.10 An application for the supply of electricity service/s to a subdivision must be accompanied with proof of the approval of the subdivision; where the approval has not been submitted, the Quotation will be given but NO construction will be done until such proof has been provided.
- 4.11 An electricity service supplying one stand may not pass over another stand, unless a servitude or right of way has been registered for this purpose or if the electricity service cable is overhead;
- 4.12 If any changes to a building, electrical installation or supply cabling causes CENTLEC's equipment or supply cabling to be moved or changed, whilst the energy meter is still mounted inside the building or outside against the wall, it is required that the energy meter be moved to the street front erf boundary and that changeover costs be payable by the applicant;
- 4.13 If any changes to a building or electrical installation with more than one meter causes CENTLEC to change the connection size or metering equipment, then all the meters shall be converted to pre-payment metering.
- 4.14 Electricity services, irrespective of being formal or informal housing, will not be supplied to erven NOT approved by Town Planning.
- 4.15 The point of supply shall be provided in a distribution box/meter box on the erf



boundary and CENTLEC's responsibility in respect of equipment and cabling, will only be up to the point of supply. The safety of all equipment and underground or overhead cabling from the point of supply will be the responsibility of the consumer.

- 4.16 Where meters are installed in dwellings, alongside the customers' distribution board/Ready Board, or on an outside wall of the building this will be regarded to be the "point of consumption". In both instances, CENTLEC will not be responsible for the safety of the equipment and underground or overhead cabling up to the "point of consumption". CENTLEC will only be responsible for the meter(s) inside the dwelling.
- 4.17 Pre-payment meters are currently installed in meter boxes or pole mounted meter boxes on the erf boundary. Only the key-pad (control panel) of the pre-payment meters will be installed inside dwellings. The customer will be responsible for the safety of the equipment and underground or overhead cabling after the "point of supply", whilst CENTLEC will only be responsible for the key-pad inside the dwelling. The owner/lessor/user shall be held liable for negligent damage of CENTLEC's equipment.
- 4.18 Load control equipment (ripple control relay) for controlling geysers in dwellings, shall be installed when a domestic connection is made. The customer's underground connection cable has to make provision for this circuitry. CENTLEC reserves the right to have a geyser controller installed inside or next to the consumer (point of control) distribution box where overhead connections are done.



## **5 DOMESTIC CONNECTIONS – URBAN**

### **5.1 NEW SINGLE PHASE PRE-PAYMENT METER – URBAN**

A single phase pre-payment connection is supplied according to the consumer's need. The normal single phase domestic connection is controlled by an 80A circuit breaker at the point of supply and a 60A circuit breaker at the point of control.

A three-pole circuit breaker is used to isolate the live, neutral and geyser supply (only in areas where the load control signal is available). The pre-payment meter trips electronically if the load exceeds 60 amperes. The pre-payment meter will be installed in the distributions/pole mounted/kVA box installed on the erf boundary/outside wall. CENTLEC will install the key-pad of the meter inside the dwelling at the position preferred by the owner.

#### **5.1.1 Consumer connection cable**

For a domestic consumer, the recommended consumer cable size to be connected onto the network is 10mm<sup>2</sup> x 4 armoured copper cable. The consumer's cable will be supplied with a separate earth wire of at least 6 mm<sup>2</sup> cross section if one of the cable cores is not utilised as an earth wire. The connection cable is the consumer's responsibility and the above mentioned is only a recommendation. The owner is responsible for the installation of an additional 1.5mm<sup>2</sup> x 2core (Twin & Earth or Surfex) cable between the supply point and the dwelling for the connection of the key-pad inside the dwelling.



### ***5.1.2 Load control equipment (ripple control relay)***

Refer to ***General guidelines for connections not exceeding 500 kVA, section 4.18***

### ***5.1.3 Service cost***

The cost for new domestic connections is set out in the annual standard service cost.

## ***5.2 NEW SINGLE PHASE TIME OF USE (TOU) METER - URBAN***

A single phase pre-payment connection is supplied according to the consumer's need. The normal single phase domestic connection is controlled by an 80A circuit breaker at the point of supply and a 60A circuit breaker at the point of control.

A three-pole circuit breaker is used to isolate the live, neutral and geyser supply (only in areas where the load control signal is available). The pre-payment meter trips electronically if the load exceeds 60 amperes. The pre-payment meter will be installed in the distributions/pole mounted/kVA box installed on the erf boundary/outside wall. CENTLEC will install the key-pad of the meter inside the dwelling at the position preferred by the owner.



### **5.2.1 Customer connection cable**

For a domestic consumer, the recommended consumer cable size to be connected onto the network is 10mm<sup>2</sup> x 4 armoured copper cable. The consumer's cable will be supplied with a separate earth wire of at least 6 mm<sup>2</sup> cross section if one of the cable cores is not utilised as an earth wire. The connection cable is the consumer's responsibility and the above mentioned is only a recommendation. The owner is responsible for the installation of an additional 1.5mm<sup>2</sup> x 2core (Twin & Earth or Surfux) cable between the supply point and the dwelling for the connection of the key-pad inside the dwelling.

### **5.2.2 Load control equipment (ripple control relay)**

Refer to **General guidelines for connections not exceeding 500 kVA, section 4.18**

### **5.2.3 Service cost**

The cost for new domestic connections is set out in the annual standard service cost.

## **6 ADDITIONAL METERING: DOMESTIC**

Additional metering is allowed for more than one dwelling on the same single residential erf. The electrical supply to the dwellings will be taken from only one point of supply, located on the erf boundary. When a request is received for electrical connections, and it is required that all permissible dwellings on the erf must be metered separately.



The total capacity of the connection is limited by means of an 80A (slow curve) main circuit breaker (point of supply), and the supply to each dwelling is also limited with a 80A (fast curve) circuit breaker and meter for each permissible dwelling in a meter box on the street boundary. The maximum size meter box permitted on the street boundary is a 8-way box that could house up to 12 single phase meters.

The owner, with the assistance of his/her electrical consultant must calculate the estimated load to establish if the mentioned connection (13.8kW/60A single phase) will be sufficient to supply the combined loading of all permissible dwellings on the site.

### **6.1 Consumer connection cable**

The owner/customer will provide separate customer connection cables from each dwelling, up to the single point of supply at the erf boundary.

### **6.2 Service cost**

The cost for the connection will consist of the standard service costs for the first dwelling. The network contribution will be determined based on the number of dwellings inside the property.





## **7 SUBDIVISION OF ERVEN – URBAN AND PERI – URBAN**

In the case of subdividing erven, the developer shall be responsible for all the alterations needed to relocate the existing and, or to create additional supply points for the newly created erven.

### **7.1 Consumer connection cable**

The owner/customer will provide separate customer connection cables from each erf of the subdivision boundary, up to the single point of supply at the erf boundary.

### **7.2 Service cost**

#### **7.2.1 Service costs - Urban**

The estimated distribution network development cost for the relocation and or creation of additional connections for the new sites, as well as the back bone cost at the ruling R/kVA tariff shall be paid by the developer. The tariff consists out of a contribution towards the primary, secondary and low voltage infrastructure. The developer pays the full estimated amount. This amount will exclude the service covered by the standard Service cost, which is payable by the owner after purchasing the new erf (subdivision).

#### **7.2.2 Service costs Peri – Urban**

The estimated distribution network development cost for the relocation and or creation of additional connections for the new sites, as well as the back bone cost at the ruling R/kVA tariff shall be paid by the developer. The tariff consists out of a contribution towards the



primary, secondary and low voltage infrastructure. The developer pays the full estimated amount. This amount will exclude the service covered by the standard Service cost, which is payable by the owner after purchasing the new erf (subdivision).

## **8 RELOCATING METERS TO THE STAND BOUNDARY: DOMESTIC**

The relocation of meters takes place when the customer applies for such service, when tampering with the metering equipment has occurred or when there's changes requested by client that has an existing overhead network supplying the dwelling.

### ***8.1 Consumer connection cable***

For a domestic consumer, the recommended consumer cable size to be connected onto the network is 10mm<sup>2</sup> x 4 armoured copper cable. The consumer's cable will be supplied with a separate earth wire of at least 6 mm<sup>2</sup> cross section if one of the cable cores is not utilised as an earth wire. The connection cable is the consumer's responsibility and the above mentioned is only a recommendation. The owner is responsible for the installation of an additional 1.5mm<sup>2</sup> x 2core (Twin & Earth or Surfex) cable between the supply point and the dwelling for the connection of the key-pad inside the dwelling.

### ***8.2 Load control equipment (ripple control relay)***

Refer to ***General guidelines for connections not exceeding 500 kVA, section 4.18***



### **8.3 Service cost**

The costs will be paid by the client as per the standard service costs.

## **9 CONVERSIONS OF METERS TO PREPAID: DOMESTIC**

### **9.1 CONVERT SINGLE PHASE ROTARY DISK METER TO A PRE-PAYMENT METER**

Connection with meter mounted inside the dwelling or in a meter box externally mounted against external wall. The existing single phase rotary disk meter shall be replaced with a split pre-payment meter.

#### **9.1.1 Consumer connection cable**

The owner shall be required to supply and install a 1.5mm<sup>2</sup> copper twin and earth or Surfex cable for the key-pad that will be installed inside the dwelling. The owner must decide on the preferred position of the key-pad inside the dwelling.



Connection with meters mounted inside a meter room or in a meter box. (Townhouses/Flats). The existing single phase rotary disk meter would be replaced with a split pre-payment meter. The owner shall be required to supply and install a 1.5mm<sup>2</sup> copper twin and earth or Surfex cable for the key-pad that will be installed inside the dwelling. The owner must decide on the preferred position of the key-pad inside the dwelling.

#### **9.1.2 Load control equipment (ripple control relay)**

Refer to **General guidelines for connections not exceeding 500 kVA, section 4.18**

#### **9.1.3 Service cost**

Service cost for standard conversion to prepaid tariff is payable.

### **9.2 CONVERT THREE PHASE ROTARY DISK METER TO PRE-PAYMENT METER**

Connection with meter inside the dwelling or in a meter box mounted on external wall. The existing three phase rotary disk meter will be removed and a new split pre-payment meter installed in a meter box on the erf boundary.



### **9.2.1 Consumer connection cable**

Cable connection with meter box on boundary: For a domestic customer, the recommended minimum size cable allowed to be connected to the distribution network is a 10mm<sup>2</sup> x 4 core armored copper cable. Additional to this, a separate earth conductor of at least 6 mm<sup>2</sup> must be provided. The customer is also responsible for installing 6mm<sup>2</sup> x 2 core CU/PVC conductors for controlling the geyser, as well as a 1.5mm<sup>2</sup> copper twin and earth or Suffix cable from the meter box to the position where the key-pad will be installed. The connection cabling is the customer's responsibility.

### **9.2.2 Load control equipment (ripple control relay)**

Refer to **General guidelines for connections not exceeding 500 kVA, section 4.18**

### **9.2.3 Service cost**

Service cost: The standard Service cost is payable.



### **9.3 CONVERT SINGLE PHASE METER TO THREE PHASE TIME OF USE (TOU) METER - URBAN**

Three phase domestic connections at low voltage are provided according to the customer's need. The point of supply shall be in the meter box on the erf boundary. The connection is limited to a maximum of 500kVA.

Customer connection cable: The customer will provide and install a suitable cable for the required connection size.

Service cost: The customer will be liable to pay the standard tariff if a standard domestic connection is required. If the connection size required is more than the standard then the full estimated amount necessary to strengthen the infrastructure, as well as for the metering equipment, is payable.

Phase balancing: The consumer is to ensure that the loading of the installation is balanced across all three phases, so that the difference between phases is no more than 30% at any given time.

## **10 THREE PHASE DOMESTIC CONNECTIONS – URBAN**

### **10.1 NEW THREE PHASE DOMESTIC TIME OF USE (TOU) METER**



Three phase domestic connections are provided according to the customer's need. The connection is limited to a maximum of 500kVA. The current carrying capacity of the circuit breakers to be installed at the point of supply, and the point of control, will be determined according to the load requirement of the connection.

Load control equipment (ripple relay) is installed at domestic connections for the control of the geysers in dwellings. The customer's connection cabling must make provision for this function.

#### ***10.1.1 Consumer connection cable***

The connection cabling is the customer's responsibility. The recommended minimum size cable allowed to be connected to the distribution network is a 10mm<sup>2</sup> x 4core armoured copper cable. Additional to this, a separate earth conductor of at least 6 mm<sup>2</sup> x 2 must be provided.

The customer is also responsible for installing 6mm<sup>2</sup> x 2 CU/PVC cable for controlling the geyser, as well as a 1.5mm<sup>2</sup> x 2 copper twin and earth or Surfex cable from the meter box to the position where the key-pad will be installed.

#### ***10.1.2 Load control equipment (ripple control relay)***

Refer to ***General guidelines for connections not exceeding 500 kVA, section 4.18***



### ***10.1.3 Service cost***

The applicant will be liable to pay the standard tariff if a standard domestic connection is required. If the connection size required is more than the standard then the full estimated amount necessary to strengthen the infrastructure, as well as for the metering equipment, is payable.

### ***10.1.4 Phase balancing***

The consumer is to ensure that the loading of the installation is balanced cross all three phases, so that the difference between any two phases is no more than 30% at any given time.

## ***10.2 THREE PHASE PRE-PAID METER- URBAN***

Three phase domestic connections with a split pre-payment meter are supplied to all new standard three phase domestic clients with a load requirement less than 60A per phase. The normal three phase domestic connection is controlled by three 80 ampere circuit breakers at the point of supply and a 60A three pole circuit breaker at the point of control. A split pre-payment meter will be installed inside a meter box on the erf boundary. The key-pad of the meter will be installed inside the dwelling where the owner prefers.

### ***10.2.1 Consumer connection cable***





The connection cabling is the customer's responsibility. The recommended minimum size cable allowed to be connected to the distribution network is a 10mm<sup>2</sup> x 4core armoured copper cable. Additional to this, a separate earth conductor of at least 6 mm<sup>2</sup> x 2 must be provided.

The customer is also responsible for installing 6mm<sup>2</sup> x 2 CU/PVC cable for controlling the geyser, as well as a 1.5mm<sup>2</sup> x 2 copper twin and earth or Surfex cable from the meter box to the position where the key-pad will be installed.

### ***10.2.2 Load control equipment (ripple control relay)***

Refer to ***General guidelines for connections not exceeding 500 kVA, section 4.18***

### ***10.2.3 Service cost***

The cost as set out in the standard Service costs is payable.

### ***10.2.4 Phase balancing***

The consumer is to ensure that the loading of the installation is balanced cross all three phases, so that the difference between any two phases is no more than 30% at any given time.



## **11 DOMESTIC CONNECTIONS: PERI-URBAN AREAS**

### ***11.1 NEW SINGLE PHASE SPLIT PRE-PAYMENT METER***

The connection will be supplied from the 11 kV overhead line via a pole mounted transformer to the boundary of the stand/plot.

#### ***11.1.1 Consumer connection cable***

The recommended minimum size cable allowed to be connected to the network for a domestic customer, is a 10mm<sup>2</sup> x 4 core armoured copper cable or 10mm<sup>2</sup> x 2 core armoured copper cable plus a separate suitably sized earth conductor. With respect to geyser control, additional conductors are not necessary here, since a ripple relay signal is not available in peri-urban areas. The connection cabling is the customer's responsibility.

#### ***11.1.2 Service cost***

The cost for above mentioned connection is set out in the standard Service costs.

### ***11.2 NEW SINGLE PHASE TIME OF USE (TOU) METER***

The connection will be supplied from the 11 kV overhead line via a pole mounted transformer to the boundary of the stand/plot.



### ***11.2.1 Consumer connection cable***

The recommended minimum size cable allowed to be connected to the network for a domestic customer, is a 10mm<sup>2</sup> x 4 core armoured copper cable or 10mm<sup>2</sup> x 2 core armoured copper cable plus a separate suitably sized earth conductor. With respect to geyser control, additional conductors are not necessary here, since a ripple relay signal is not available in peri-urban areas. The connection cabling is the customer's responsibility.

#### ***1.1.1 Service cost***

The cost for above mentioned connection is set out in the standard Service costs.

### ***11.3 NEW THREE PHASE DOMESTIC CONNECTION - PERI-URBAN***

The minimum load capacity for three phase connections is 25kVA, and is controlled at the point of supply by 80 ampere circuit breakers, and 60 ampere circuit breakers at the point of control. The 80 ampere circuit breaker function is to decrease the maintenance on peri-urban connections.



### ***11.3.1 Consumer connection cable***

The owner/customer will provide separate customer connection cables from each dwelling, up to the single point of supply at the erf boundary.

### ***11.3.2 Service cost***

The cost for the above mentioned connection is set out in the standard Service costs, and is only valid where a three phase 11 kV network exists.

Where a three phase 11 kV network does not exist, or the customer requires a three phase connection at a different position, then the position indicated by this department, it will be investigated and considered, but the full estimated cost for the extension of the line and or the additional supply transformer must be paid.

A three phase domestic connection greater than 80 ampere per phase, is also available, and the full estimated cost must be paid. The maximum of 200kVA will be applicable on peri-urban networks.

## ***11.4 THREE PHASE PREPAID METER – PERI-URBAN***



A three phase pre-payment meter will be installed according to the customer's needs. All the prescriptions of paragraph 4.6.2, also apply here. Maximum of 60A per phase is applicable.

#### **11.4.1 Consumer connection cable**

The owner/customer will provide separate customer connection cables from each dwelling, up to the single point of supply at the erf boundary.

#### **11.4.2 Service cost**

The cost for above mentioned connection is set out in the standard Service costs.

### **12 HIGH DENSITY HOUSING DEVELOPMENT**

The requirements related to meter boxes and meter rooms in the By-laws relating to Electricity Supply



## **12.1 SUPPLYING TOWN HOUSES: URBAN**

For the purpose of supplying electricity to proposed townhouse development, there are three distinguished types of stands on which such development can take place:

a stand which the Council zoned for town housing, during the planning of residence areas where provision is made for town housing in existing township scheme;

a stand located in an area, not re-zoned for town housing, but which the Council has earmarked for such development. A prospective developer must still apply for the re-zoning of such stand;

a townhouse development on a stand, not earmarked or zoned for such development. Provision for a service connection shall only take place after completion of the township establishment of the land, and on receipt of the proof of the registration of the sites and the relevant zoning thereof.

Service cost: There are no standard service costs applicable to townhouse development. To make provision for an electrical connection to any of the three types of stands mentioned above, the basis for cost estimation for each type, is described below, respectively.

### **12.1.1 Types of connections**

- a. Multiple single phase pre-payment meters shall be installed from a single connection point (point of supply) for townhouses with a total After Diversity



Maximum Demand (ADMD) of 500kVA or less;

- b. Bulk domestic connection: When a townhouse complex has a ADMD of more than 500kVA, then a single medium voltage bulk domestic supply connection is provided, and the developer is responsible for sub-metering.
- c. The main switch inside the meter box or substation located on the erf boundary will be considered the point of supply.

### ***12.2 BULK METERING FOR TOWNHOUSES – WITH AN AFTER DIVERSITY MAXIMUM DEMAND OF HIGHER THAT 500kVA.***

When a townhouse complex has an estimated after diversity maximum demand of higher than 500kVA, it shall be supplied by a single medium voltage bulk domestic connection.

Domestic bulk metering is limited by means of a main circuit breaker which determines the connection's capacity. The capital contribution is based on the estimated capacity as applied for by the developer. The connection is supplied from a medium voltage 11KV switch and metering unit inside a substation or kiosk placed within the site, or on an adjacent site, for which the contractor provides one medium voltage cable to be connected onto the network through the necessary metering equipment. The premises are provided with privately sub-metering and no load control equipment is required for this type of connection. CENTLEC's responsibility stop at the bulk meter.



Reselling of electricity is regulated by the requirements in terms of the By-laws relating to Electricity Supply.

### **12.3 SUPPLYING TOWN HOUSES: PERI-URBAN**

The peri-urban network does not make provision for high density housing. Thus, any application for this type of connection shall thoroughly be investigated (in conjunction with the Planning division) with respect to zoning, available capacity and feasibility.

Townhouse, flats and other high density housing units may have unlimited single or three phase meters with one main point of supply circuit breaker, but main supply will be limited to 300A or 200kVA (largest pole mounted transformer size on peri-urban distribution networks).

## **13 BULK SUPPLY CONNECTIONS**

### **13.1 BULK SUPPLY:- URBAN**

It is a connection to a customer of which the maximum demand is greater than 100kVA (150 ampere per phase). The metering shall consist of a combination maximum demand / kWh-unit meter. Time of use registers for each of the time zones shall be applicable for the energy used in the period. The maximum demand is only measured inside peak





periods. An excess charge, which is calculated from the highest demand during the last twelve months of consumption is also applicable.

A low voltage bulk connection, is limited at a maximum of 500 kVA. The connection is limited by means of a main circuit breaker, and consumption is measured with one bulk meter and accompanying equipment. Connections between 500kVA and 5MVA are considered medium voltage connections. Connections exceeding 5MVA are negotiable (a special arrangement is signed).

### **13.2 UPGRADING OF THE CONNECTION CAPACITY AND LAND ACQUISITION**

When a miniature substation/substation has to be placed, to enlarge the existing capacity to accommodate the applicant's need, the applicant must then make an area of a specified servitude available on the premises where a miniature substation/substation can be placed. The preferred area for the servitude must be parallel to the boundary, street front and accessible at all times to ensure maintenance and operation services can be easily executed. The developer register a servitude for the miniature substation/substation in favour of CENTLEC.

#### **13.2.1 Service cost**



A bulk connection will be provided if the applicant is prepared to pay the full estimated cost as determined below:

**The Service cost consists of two parts, namely:**

**The connection part:**

This estimated amount contains all cost in respect to the applicable meter equipment (labour, material and transport). Similar to the small demand connections.

**The capital contribution part:**

The applicant pays a capital contribution, in Rand per kVA, towards the estimated capacity applied for.

The two, abovementioned costs are added together, which constitutes the total calculated Service cost amount.

### **13.3 BULK SUPPLY - PERI-URBAN**

Supply point up to a maximum of 1000Kva. The methods of distribution in peri-urban areas (11 000 volt overhead distribution lines) . A maximum capacity of 200 kVA can be supplied from a pole mounted transformer. The meter box is placed at a position on the boundary, adjacent to the site.



When an application for a supply point exceeds 200 kVA, the applicant is required to apply for a MV connection point (11kV) and make land available on the plot for an additional transmission pole, a pole mounted metering unit and a stay wire. The minimum size of such a MV connection is 300kVA.

It is required from the applicant to supply and install a transformer or miniature substation on the plot and connect the supply via a suitably sized 11kV cable, terminated to a set of 11kV drop out fuses (consumer point of control), and mounted on the transmission pole, close to the CENTLEC metering unit and point of supply.

### ***13.3.1 Service cost for peri-urban areas***

The Service cost is estimated, and the full amount plus the network contribution portion is payable by the applicant.

## **14 DOWNGRADING OF CONNECTION SIZE**

The connection may be reduced on request from the customer.

### ***14.1 Service cost***

The estimated tariff is payable. The customer shall be liable for costs to reinstate the initial connection.



## **15 TEMPORARY CONNECTION**

### ***15.1 TEMPORARY BUILDERS CONNECTION***

A builder's connection will only be supplied if the building plans had been approved. The building approval letter must accompany the application.

A three phase prepayment meter, 60A per phase is installed in a Peri-Urban meter box on the erf boundary. The connection is valid for a maximum of three months, unless arranged for a specific period not exceeding eighteen months. The connection shall be removed by CENTLEC if the arranged period has lapsed. If the building is not completed and the final connection not installed, then the applicant will have to re-apply for the connection and the standard tariff would be payable once again.

The small demand business energy tariff is applicable and will only be changed when written proof is provided that all building activities has been completed and that the tariff can be changed to the relevant domestic or commercial tariff.

No extension of the electrical network will be done to accommodate a temporary connection, in such a case the client will need to apply for a permanent connection.

#### ***15.1.1 Service cost***

The standard Service cost is payable for the 60A per phase connection. If such a temporary connection with a larger size required, then the applicant is to pay the actual cost thereof.



## **1.2 TEMPORARY CONNECTION FOR A SOCIAL EVENT**

A temporary connection for a social event will only be supplied if the event has been approved by the Mangaung Metro. The approval letter must accompany the application.

A single phase or three phase prepayment meter, 80A per phase is installed in a Peri-Urban meter box on the erf boundary. The connection is valid for a maximum of three months, unless arranged for a specific period not exceeding twelve months. The connection shall be removed by CENTLEC if the arranged period has lapsed.

### **15.1.2 Service cost**

The standard Service cost is payable for the 60A per phase connection. If such a temporary connection with a larger size required, then the applicant is to pay the actual cost thereof.



## **16 REMOVING SERVICE CONDUCTORS**

When a building is to be renovated or demolished, and service conductors need to be removed. The owner must apply for such service at least one month before the site is to be declared safe in terms of the demolishing permit. Where such service conductors were removed, and later need to be reconnected to the renovated, or a new building, it will then be considered a new connection, unless an application to relocate has been received and paid for.

In instances where the power consumption of a premises is metered by one single meter, and the owner applies for removal of such meter, it is considered a removal of the entire connection.

NB. Metering equipment always remains the property of the CENTLEC and is linked to a specific erf, and could not be relocated to another erf by the consumer.

## **17 POWER FACTOR CORRECTION**



The Bylaws of electricity dictates that a consumer is to ensure that their equipment is not causing the power factor to go beyond the acceptable levels. (The power factor of any load shall be maintained within the limits 0,85 lagging and 0,9975 leading).

Customers shall supply and install power factor correction equipment to ensure compliance to this by law, and obtain written permission from CENTLEC before installing such equipment. Such equipment must include sufficient filter circuitry equipment and must comply with the Council's requirements. If such equipment is installed without the permission of CENTLEC, the owner shall be held liable for all correction costs involved.

The service provider may regulate load control by means of a high frequency (425/1050Hz) signal.

## **18 REFUNDING CONNECTION FEES**

Standard Service costs are refundable at the request of the applicant if the connection could not be executed for whatever reason. At least 30 days should be allowed for the refunding Service cost. If the standard tariff does not make provision for a particular Service cost, and this cost was estimated, then only a portion of the estimated amount will be refundable. A charge of 10 % will be retained to cover administration expenses up to the limit of R10 000 exclusive of VAT.



## **19 ALLOCATING PADLOCKS AND ISSUING OF KEYS**

Padlocks are utilised to prevent unauthorised entrance to buildings, areas and equipment which belongs to CENTLEC. These areas are divided up into Low safety, Medium safety and High safety areas, which are defined as follow:

### **19.1 LOW RISK AREAS**

Low risk areas include meter rooms, meter boxes (on the meter side) and distribution boxes where external electrical equipment is safely screened off.

Padlocks used in these areas, are those marked with CENTLEC key numbers BM 2, BM 44 or BM 66.

### **19.2 MEDIUM RISK AREAS**

Medium risk areas include switch and transformer rooms, switchgear, distribution centres, miniature substations and chambers where electrical equipment is not safely screened off (the side of meter box which contain bare conductors).

Padlocks used in these areas, are those marked with CENTLEC key numbers, BM 1, BM 33 or BM 77.

### **19.3 HIGH RISK AREAS**

High risk areas include distribution centres and transformer chambers.





Padlocks used in these areas, are those marked with CENTLEC key numbers, BM 22 & BM11

In respect to the above mentioned areas, keys are only issued to CENTLEC personnel to enable them to conduct work in above mentioned areas. Only those keys, for areas which he or she is authorised to access, will be issued.

With the exception, BM 2, BM 44 and BM 66 keys will be issued to caretakers of flats and town houses, electrical contractors and plot owners, to enable them to switch circuit breakers in meter rooms and meter boxes. Applications to obtain such a meter box key (MB44) should be addressed to the Head of Energy and Network Control and Operations, CENTLEC (SoC) Ltd, Fort Street, Bloemfontein.

Locksmiths are not allowed to manufacture or duplicate these BM marked keys without the written consent of the CENTLEC engineer.

## **21 SMALL SCALE EMBEDDED GENERATION (SSEG)**

The applicant shall complete the prescribed CENTLEC application form, obtainable from the Customer Care in Fort Street, Bloemfontein, and ensure that the installation of the SSEG conforms to the requirements as set out in the National Rationalised Standards (NRS 097-2-1 & NRS 097-2-3).



No generation equipment shall be connected to the municipal electrical grid without the written consent of the Engineer of the Electricity Services Planning Department of CENTLEC.

## **20 LIST OF ANNEXTURES**

- a) Connection information sheet 2021/22



## CENTLEC POLICY – AUTHORISATION CONTROL SHEET

The attached revised Electrical Connection Policy – Revision 29 dated 31 March 2021 has been approved by the CENTLEC Executive Committee for immediate implementation.

\_\_\_\_\_  
ACTING EME: Mr. X Faku

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DATE

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COMPANY SECRETARY

\_\_\_\_\_  
DATE

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CFO: M MATSIMELA

\_\_\_\_\_  
DATE



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CEO: Mr. M SEKOBOTO

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DATE