

**NELSON MANDELA METROPOLITAN  
MUNICIPALITY**

**ELECTRICITY AND ENERGY BUSINESS UNIT**

**ELECTRICITY SUPPLY BY- LAW**

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CITY OF PORT ELIZABETH

ELECTRICITY SUPPLY BY-LAW

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# CITY OF PORT ELIZABETH ELECTRICITY SUPPLY BY-LAW

## CHAPTER 1

### Definitions

- 1 (1) In this by-law, unless inconsistent with the context:
- “*approved*” means approved by the Engineer in writing;
- “*consumer*” means the occupier of any premises to which the Council has contracted to supply or is actually supplying electric energy, or if there is no occupier then any person who has entered into a current contract with the Council for the supply of electric energy to such premises, or, if there is no such person, then the owner of the premises.
- “*consumption*” means the energy consumption in kilowatt hours (kWh) and/or the maximum demand in kilovolt –amperes (kVA);
- “*contractor*” means an electrical contractor as defined in the Electrical Installation Regulations of 1985 made under the Machinery and Occupational Safety Act 1983, (Act 6 of 1983) as amended;
- “*Council*” means the City Council of Port Elizabeth;
- “*creep*” in relation to an electricity meter rotor means to turn not more than one revolution when not less than 110 per cent of the test voltage is applied to the potential circuit of the meter and the meter current is open;
- “*demand*” means the consumer’s average load in kilovolt-amperes (kVA) measured over any thirty minute period;
- “*due date*” means the date specified as such on any account despatched from the offices of the City Treasurer for any charges payable in terms of this by-law;
- “*Engineer*” means the official acting as Electrical Engineer in charge of the electricity undertaking of the Council or any other person authorised to act on his behalf;
- “*Installation*” means an electrical installation as defined in the Machinery and Occupational Safety Act, Act 6 of 1983, as amended;
- “*metering error*” means an error in any meter or associated instrument transformer, when such meter or instrument transformer tested separately, does not meet its individual performance specification;
- “*metering installation*” means any arrangement of meters installed by the Council for the purpose of measuring the maximum demand and/or energy consumption in respect of the supply to any consumer and includes all associated instrument transformers, interconnecting wiring, fuses, terminal blocks and accessories;
- “*motor rating*” means the maximum continuous kilowatt output of a motor as stated on the maker’s rating plate;
- “*motor load, total connected*” means the sum total of the motor ratings of all the individual motors connected to an installation;

*“notified maximum load”* means the maximum load in kilovolt amperes (kVA) as advised by the consumer

*“occupier”* in relation to any premises and includes:

- (a) any person in actual occupation of those premises; or
- (b) any person legally entitled to occupy those premises; or
- (c) in the case of those premises being subdivided and let to lodgers or various tenants, the person receiving the rent payable by such lodgers or tenants whether on his own account or as agent for any person entitled thereto or interested therein; or
- (d) any person having the charge or management of those, and includes the agent of any such person when he is absent from the Republic of South Africa or his whereabouts are unknown;

*“owner”* means and includes:

- (a) the person or persons in whom, from time to time, shall be vested the legal title to any immovable property;
- (b) in any case where the property has been leased for 50 years or upwards, the lessee of such property;
- (c) in cases where the person in whom legal title is vested is insolvent or deceased, or is of sound mind, or whose estate has been assigned for the benefit of his creditors, the person in whom the administration of such property is vested as trustee, executor, curator or assignee or administrator;
- (d) in cases where the owner as described above is absent, the agent or person receiving the rent of the property in question, and
- (e) in any case where the property is beneficially occupied under a servitude or right analogous thereto, the occupier of such property;

*“permit holder”* means a permit holder as defined in the Electrical Installation Regulations of 1985 made under the Machinery and Occupational Safety Act, Act 6 of 1983, as amended;

*“point of supply”* means the point at which the electrical installation on any premises is connected to the distribution system of the Council;

*“premises”* means any land and any building, tent or structure above or below the surface of any land and includes an vehicle, aircraft or vessel;

*“prescribed”* means prescribed by the Council;

*“service connection”* means all cables and equipment required to connect the supply mains of the Council to the terminals of the consumer’s installation;

*“standby supply”* means a secondary source of electric power which is used to energise the whole or part of an installation when the primary source fails;

*“starting current”* in relation to alternating current motors means the symmetrical root-mean-square current taken by a motor when energised at its rated voltage with its starter in the starting position and the rotor locked;

“*supply mains*” means any electric cable or overhead line forming that part of the Council’s electric distribution system to which the service connection is connected;

“*tampering*” means any unauthorised interference with the Council’s equipment or removal of Council’s seals from protective devices or metering equipment and “tamper” has a corresponding meaning;

“*tariff*” means the tariff of charges for electricity supplied or such other services in connection with the supply of electricity as may from time to time be determined upon by the council in terms of this by-law;

“*voltage*” means the difference of electrical potential between any two live conductors, or if there is only one live conductor, between that conductor and earth;

“*high voltage*” (referred to as HV) means a voltage normally above 650 volts;

“*medium voltage*” (referred to as MV) means a voltage normally above 250 volts but not exceeding 650 volts;

“*low voltage*” (referred to as LV) means a voltage normally not exceeding 250 volts and

“*wiring regulations*” means SABS 0142, Code of Practice for the Wiring of Premises, as amended.

- (2) All other terms used in this by-law shall, unless the context otherwise requires, have the meaning assigned thereto in the Electricity Act, 1987 (Act 41 of 1987) as amended from time to time, or in the appropriate standard specification in terms of the Standards Act, 1982 (Act 30 of 1982) in the regulations framed under the Machinery and Occupational Safety Act, 1983 (Act 6 of 1983), or in SABS 0142, Code of Practice for the Wiring of Premises, as amended.

## HEADINGS AND TITLES

- 2 The Headings and titles in this by-law shall not affect the construction thereof.

may become necessary in the circumstances shall be borne by the consumer on the premises in which the supply is required to be continued.

### Right of Admittance to Inspect and Test

- 7 (1) The Engineer or any duly authorised official of the Council may –
- (a) at any reasonable time or in an emergency at any time enter any premises any premises for the purpose of inspecting, testing, adjusting, installing or changing any meter, installation, service mains, service connection, apparatus, equipment or protective device whether installed by the Council or the consumer or any other person for or in connection with the supply of electricity, and
  - (b) remove any earth, bricks, plaster, stone, iron or woodwork or other covering on any part of the premises for any of the purposes referred to in paragraph (a);
- (2) The Council shall not be liable for any damages occasioned by or arising from any removal referred to in sub-sectioned (1) (b) but shall restore the premises to their former condition should no breach of this by-law be discovered.

### Refusal to Give Information

- 8 No person shall refuse to give such information as may be reasonably required of him by any duly authorised official of the Council or render any false information to any such official regarding any wiring work completed or contemplated.

### Refusal of Admittance

- 9 No person shall wilfully hinder, obstruct, interfere with or refuse admittance to the Engineer or any duly authorised official of the Council in the performance of his duty Under this by-law or of any duty connected with or relating thereto.

### Improper Use

- 10 If the consumer uses the supply of electricity for any purpose or deals with the supply of electricity in any manner which the Engineer has reasonable grounds for believing interferes unduly or improperly with or is calculated to interfere unduly or improperly with or without notice, discontinue such supply but the supply shall be restored as soon as the cause for the disconnection and reconnection have been paid.

### Electricity Tariff

- 11 Copies of the electricity tariff may be obtained free of charge at the offices of the Engineer.

### Payment of Charges

- 12 (1) The consumer shall pay for all electricity supplied to his premises as prescribed by the Council which is hereby authorised to fix charges and fees or a tariff of charges and fees from time to time by special resolution. All accounts shall become payable

dispatched from the offices of the City Treasurer and shall reflect a warning indicating that the supply may be disconnected should the charges in respect of the supply to which the account relates remain unpaid after the due date. The due date on the account shall not be less than 21 calendar days of the date of instalment.

- (2) An error or omission in any account or failure to render an account shall not relieve the consumer of his obligation to pay the correct amount due for electricity supplied to the premises and the onus shall be on the consumer to satisfy himself that the account

## **CHAPTER 2**

### **GENERAL CONDITIONS OF SUPPLY**

#### **Supply by Agreement**

- 3 No person shall use a supply of electricity from the Council unless or until he shall have entered into a signed agreement with the Council for such supply, and such agreement together with the provisions of this by-law shall in all respects govern such supply.

#### **Application for Initial Supply or Increase in Supply**

- 4 (1) Application for the initial supply of electricity to any premises shall be made in writing by the prospective consumer on the printed form obtainable free of charge at the offices of the Engineer and shall state the number and particulars of consuming devices to be installed in connection with such supply and the estimated load in kilovolt-amperes. Such application shall as be made as early as possible before the supply is required in order to facilitate the work of the Council in regard to the supply mains and the service connection. The time allowed on the application before the date on which the supply or increase in supply is required shall be such as to allow the Engineer reasonable time to carry out any modifications or extensions that may be required to the distribution system.
- (2) An application for a supply of electricity for a period of less than one year shall be regarded as an application for a temporary supply and shall, subject to Sections 26 & 27, only be considered at the discretion of the Engineer, who may specify any special conditions required to be fulfilled in such case.
- (3) An application for a supply other than the initial supply of electricity to any premises shall be made in accordance with section 37.

#### **Minimum Period Of Notice**

- 5 Where in order to make a supply or an increase in supply available, it is necessary to extend the supply mains, the application referred to in section 4 shall be lodged with the Engineer who shall undertake to effect such supply within reasonable time subject to the availability of labour and materials. In all other cases the aforesaid application shall be lodged with the Engineer at least ten days before the supply is required.

#### **Wayleaves**

- 6 (1) The Council may refuse to lay or erect a service connection or supply mains above or below ground thoroughfare not vested in the Council or on any private property unless and until the prospective consumer shall have obtained and deposited with the Council written permission granted by the owner of the said private property or by the person in whom is vested the legal ownership of the land upon which any such thoroughfare as aforesaid exists as the case may be authorising the laying or erection of a service connection or supply mains thereon.

- (2) Should such permission be withdrawn at anytime or should the private property or thoroughfare aforesaid change ownership and the new owner refuse to grant or continue such permission, the cost of any alteration required to be made to a service connection or supply mains in order that the supply may be continued and of any removal thereof which rendered in accordance with the prescribed tariff of charges in respect of electricity supplied to the premises.
- (3) Where a duly authorised official of the Council has visited the premises for the purpose of disconnecting the supply in terms of subsection (1) and he is obstructed or prevented from effecting such disconnection, an amount equal to the prescribed fee for a reconnection shall become payable for each visit necessary for the purpose of such disconnection subject to a maximum of two such visits.

### Basic Minimum Charge

- 13 A basic minimum charge as prescribed in the tariff shall become due and payable on the date upon which municipal rates levied in terms of Ordinance 20 of 1974 become due and payable, by the owner of any premises, with or without improvements, which are not connected to the Council's electricity supply and which in the opinion of the Council can reasonably be so connected, provided that any premises in a private township.
- (a) in respect of which the reticulation was provided by the township owner at his own cost; or
  - (b) in respect of which the township owner has deposited the capital cost of reticulation with the Council,

shall be excluded until, in the case of any premises referred to in paragraph (a) above, such premises are transferred to a private owner and, in the case of a premises referred to in paragraph (b) above, payment of the sum repayable by the Council to the township owner has been made, provided further that such charge shall be reduced by one-twelfth for every completed month during which the property was so excluded or during which the property was exempt from payment of the basic charge for any reason.

### Charges in Respect of Capital Costs

- 4 (1) Where the premises are within the municipal boundary but outside the area covered by the Council's distribution system, or where reinforcement of the existing system is necessary to meet the notified maximum load, the consumer shall guarantee a minimum consumption of electricity for a prescribed period as determined by the Engineer in respect of the capital costs so incurred.
- (2) Where the premises are outside the municipal boundary, the consumer -
- (a) shall pay, in addition to any other charges payable, for the supply of electricity, a line rental based on the capital cost to the Council of the supply main as adjusted from time to time payable monthly at the rate of 1% of such cost for a period of 100 months, and

- (b) shall for the purpose of giving effect to paragraph (a) enter into such special agreement with the Council as the Engineer may require in respect of the payment of the capital costs or any balance thereof incurred or to be incurred by the Council for the purpose of the supply of electricity to him.

## Deposits

- 15 The Council reserves the right to require the consumer to deposit a sum of and also reserves the right to review from time to time the sum of money deposited. On cessation of the supply electricity, the amount of such deposit, less any payments due to the Council, shall be refunded to the consumer on application provided that if the consumer fails to apply within a period of two years after the cessation of such supply, howsoever such may arise, for a refund of the amount deposited or of any balance thereof which may remain due, such deposit or balance of deposit shall be forfeited by the consumer to the Council.

## Resale of Electricity

- 16 No person shall sell or supply electricity, supplied to his premises under an agreement with the Council, to any other person or persons for use upon any premises other than those in respect of which such agreement is made, or permit or suffer such resale or supply to be made. Where electricity is resold for use on the same premises, such resale may be in accordance with the tariff and subject to such conditions as the Council may decide.

## Right to disconnect Supply

- 17 (1) In addition to its powers under section 12 (1), the Council shall have the right to disconnect the supply of electricity to any premises where any of the provisions of this by-law or the Wiring Regulations are being or have been violated, after 48 hours notice has been given to the occupier of its intention to do so, or in case of grave risks, without notice.
- (2) After disconnection for non-payment of an account or a contravention of of any provision of this by-law, the prescribed fees shall be paid before reconnection is made.

## Non-Liability of the Council

- 18 The Council shall not be liable for any loss or damage direct or consequential suffered by a consumer or by the owner or occupier of any premises as a result of or arising from –
- (a) any work undertaken by the Council, the Engineer or an authorised official in terms or for the purpose of this by-law;
- (b) the cessation, interruption, discontinuance, disconnection, deficiency, variation, or abnormality of the supply of electricity from whatever cause whether or not such cause be attributable to the act or omission of any employee or agent of the Council.

## Leakage of Electricity

- 19 Under no circumstances shall any rebate be allowed on the account for electricity supplied and metered in respect of electricity wasted due to leakage or any other fault on the installation.

## Failure of Supply

- 20 The Council does not undertake to attend to the failure of supply due to a on the installation , except when such failure is due to the operation of the service protective device. When any failure of supply is found to be due to a fault on the installation or to the faulty operation of apparatus used in connection therewith, the Council shall have the right to charge the consumer the prescribed fee for each restoration of supply in addition to the cost of making good or repairing any damage which may have been done to the service mains and meter by such fault or faulty operation as aforesaid.

## Seals of the Council

- 21 The meter, service connection, protective devices and all apparatus belonging to the Council shall be sealed or locked by a duly authorised official of the Council and no person not being an official of the Council duly authorised thereto shall in any manner or for any reason whatsoever remove, break, deface, tamper, or interfere with such seals or locks.

## Tampering with Service Connection or Supply Mains

- 22 (1) No person shall in any manner or for any reason whatsoever tamper or interfere with any meter, service connection, service protective device or supply mains.
- (2) Where it is found that the Council's seals on any meter have been tampered with and the accuracy of the meter thereby rendered questionable, the consumer shall be liable for all costs incurred by the Council in removing, overhauling or replacing if irreparably damaged, and reinstalling the meter.
- (3) Where prima facie evidence of tampering with the Council's metering equipment or mains exists, the Council shall have the right to disconnect the supply immediately and without prior notice. The supply shall only be reconnected after payment by the consumer of the cost of repair to Council's equipment so damaged in addition to the appropriate disconnection and reconnection costs.
- (4) Upon conviction in court, or acknowledgement of guilt, for tampering with Council's metering equipment or mains, in cases where the tampering could have resulted in the metering recording less than the true consumption, Council shall have the right to recover from the consumer the full cost of his estimated consumption from the date of the first offence. The Council's estimate of the consumer's consumption shall be calculated according to his recorded consumption during any three consecutive metering periods subsequent to a date twelve months prior to the first offence.

- (5) If the Engineer decides that it is necessary or desirable to take special precautions to prevent tampering with any portion of the supply mains, service connection or meter, or to prevent the unauthorised consumption of electricity, he may either require the consumer to take the necessary action or pay the costs incurred where such action is taken by the Engineer.

### Unauthorised Connections

- 23 No person other than a person specifically authorised thereto by the Council, in writing, shall directly or indirectly connect or attempt to connect or cause or permit to be connected any installation or part thereof with the supply mains or service connections.

### Unauthorised Reconnections

- 24 (1) No person other than a person specifically authorised thereto by the Council in writing shall reconnect, attempt to reconnect or allow, permit or suffer to be reconnected with the supply mains or service connection any installation which has been disconnected by the Council.
- (2) Where the supply that has previously been disconnected is found to have been reconnected, the consumer using the supply shall be responsible for all charges for electricity consumed between the date of disconnection and the date the supply was found to be reconnected as well as the cost of any subsequent disconnection.

### Temporary disconnection and Reconnection

- 25 (1) The Council shall, at the request of the consumer, temporarily disconnect and thereafter reconnect the supply upon payment of the prescribed fee for each such disconnection and subsequent reconnection.
- (2) In the event of the necessity arising for the Council temporarily to disconnect the supply from and thereafter reconnect the supply to the building in which the service meter is installed in order to permit work being done in the internal portion of the service mains where such work is carried out at the request or on the instructions of the Council it shall, if the consumer is in no way responsible for bringing about the necessity for the carrying out of such work as aforesaid, or in the interests of safety, waive the fee referred to in subsection (1).
- (3) The Council may disconnect temporarily without notice any premises for the purpose of effecting repairs, making tests or for any other legitimate purpose.
- (4) Where the supply to any premises has been temporarily disconnected for any reason other than in accordance with subsection (3) any fixed or standing charges normally payable shall remain due and payable by the consumer.

## Temporary Supplies

- 26 It shall be a condition of the giving of all temporary supplies referred to in Section 4 (2) that should such supply be found to interfere with the efficient and economical supply of electricity to other consumer, the Council shall have the right with or without notice to terminate such temporary supply at any time and shall not be liable for any loss or damage occasioned to the consumer by such termination.

## Temporary Work

- 27 Installations requiring a temporary supply shall not directly or indirectly be connected to the supply mains except with the special permission in writing of the Engineer. Full information as to the reasons for and nature of such temporary work shall accompany the application for such permission and the Engineer may refuse such permission or may grant the same upon such terms and conditions as may to him appear desirable and necessary.

## Load Reduction

- 28 (1) At times of peak load, or in an emergency, or when, in the opinion of the Engineer, it is necessary for any reason to reduce the load on its electricity supply system, the Council may without notice interrupt and, for such period as the Engineer may deem necessary, discontinue the supply of electricity to the whole or part of any consumer's installation.
- (2) The Council may, at its own cost and expense, install upon the premises of the consumer such apparatus and equipment as may be necessary to give effect to any provision of this by-law.

## HV Switchgear and Equipment

- 29 (1) In the case where a supply is given at high voltage, one HV switch forming part of the service connection shall be provided free of charge by the Council. The consumer shall provide approved means of isolation between the Council's circuit breaker and his equipment. Where the Engineer permits the use of the Council's circuit breaker for the protection of the consumer's high voltage equipment, any additional costs for the protection shall be the responsibility of the consumer.
- (2) For those consumers who take supply direct from the high voltage mains, the Council may at its discretion, supply and maintain the necessary transformers and switchgear and shall charge an annual rental therefore.
- (3) The consumer shall bear the cost of the high voltage cable forming part of the Council's reticulation which is laid on the consumer's premises from the nearest point on the boundary to the Council's existing supply cables. The consumer shall, in addition, bear the cost of the high voltage service cable from the high voltage switch referred to in subsection (1). The conditions of Section 39 (2) shall apply to all cables laid in terms of this by-law.

## Transformer Substation Accommodation

- 30 (1) In the case of premises with an estimated load in terms of the wiring regulations exceeding 50 kVA (or of a maximum demand exceeding 25 kVA), the Council may on such conditions as it may deem fit, require the owner to provide and maintain approved accommodation which shall constitute a substation. This accommodation shall consist of a separate room or rooms to be used solely for the purpose of housing high voltage cables, switchgear, transformers, medium voltage and low voltage cables and switchgear and other equipment necessary for the supply.
- (2) Should the owner fail to maintain the substation to the required standard after being requested to do so by the Engineer may carry out such repairs as he may deem fit, and the owner shall pay the cost of such repairs. The owner shall ensure that free and unimpeded access is available to the substation at all times.
- (3) The Council reserves the right to supply its own low voltage and medium voltage networks from its own equipment installed in such accommodation and shall pay an annual sum to be determined by the Council from time to time if and while this privilege is exercised.

## Low or Medium Voltage Supply

- 31 (1) For all supplies given at low or medium voltage, the consumer shall, where required by the Engineer, provide and install an approved main isolating and protective device.
- (2) Where required by the Engineer, the consumer shall provide approved accommodation for the metering and servicing equipment of the Council.

## Wiring Diagram and Specification

- 32 A wiring diagram of the circuits starting from the main protective device shall be supplied to the Engineer in duplicate on request.

## Standby Supply

- 33 (1) No person shall be entitled to a standby supply electricity from the Council for any premises having a separate source of electricity supply, except with the written consent of the Engineer and subject to such terms and conditions as may be laid down by the Council.
- (2) Where a consumer wishes to install private generating plant to act as a standby supply, written permission shall be obtained from the Engineer.

## **CHAPTER 3**

### **RESPONSIBILITIES OF CONSUMERS**

#### **Consumer to Fix and Maintain Installation**

- 34 Any installation connected or about to be connected with the supply mains shall be provided, fixed and maintained and kept in good order by the consumer at his own expense and in accordance with this by-law and the Wiring Regulations and any additions or amendments which may from time to time be made thereto.

#### **Fault in Installation**

- 35 (1) Should any fault develop on the installation, the consumer shall immediately take steps in conformity with Section 34 to remedy the fault.
- (2) The Council may require the consumer to reimburse it for any expense to which it may be put in connection with a fault in the installation.

#### **Discontinuation of Use of Supply**

- 36 In the event of a consumer desiring to discontinue using the supply, he shall give at least five full working days notice, in writing, of such intended discontinuance to the Council, failing which he shall remain liable for all payments due in terms of the tariff for the supply of electricity until the expiration of five full working days after such notice has been given.

#### **Change of Occupier**

- 37 (1) In the case of a change of occupier, the outgoing consumer shall give the Council not less than five full working days notice, in writing, of his intention to discontinue using the supply of electricity, failing which he shall remain liable in respect of such supply as provided in section 36.
- (2) Should the whereabouts of the outgoing consumer be unknown and after appropriation of any deposit a balance be outstanding, such consumer shall be liable for all reasonable costs incurred in tracing such consumer.

#### **Service Apparatus**

- 38 (1) The consumer shall be responsible for and shall be liable to make good to the Council all costs incurred by it for any loss or damage that may occur to any meter, service protective devices, service connection or other apparatus belonging to the Council on the premises, whether or not such damage arises out of the supply of electricity unless such damage or loss is attributable to an Act of God or an act or omission of an employee of the Council or is caused by abnormality in the supply of electricity to the premises.
- (2) The applicant for a temporary connection shall be responsible for the service equipment of the Council in terms of subsection (1) and the provisions of Sections 36 shall apply.

- (3) The costs payable in terms of subsection (1) shall be determined by the Engineer whose certificate in respect thereof shall be conclusive proof of such costs and shall be binding on the consumer.

## Service Connection

- 39 (1) The consumer shall bear the prescribed cost of the service connection including the service protective devices.
- (2) Notwithstanding the fact that the consumer has borne the cost of the work carried out by the Council, ownership of the service connection, laid or erected by the Council, shall vest in the Council which shall be responsible for the maintenance of such service connection. The consumer shall not be entitled to any compensation from the Council in respect of such service connection.
- (3) The type and size of conductor used for service connections shall be in accordance with the Wiring Regulations, provided that all conductors led in conduit or two or four core cable, used for this purpose, shall be of a cross-section of not less than 16 mm<sup>2</sup>, and shall be copper or copper equivalent unless otherwise approved in writing by the Engineer.
- (4) Each conductor shall project a sufficient length from the end of the conduit or the cable terminating gland, as the case may be, at the meterboard and at the outside of the building to provide for the connection to the meter and service protective device, and to the external service conductor, the connections to which shall be made by the Engineer in each case.
- (5) A neutral conductor which shall have the same cross sectional area as the live conductors shall be provided in all cases, except in the case of supplies given under 3 phase 4 wire alternating current systems where the load of the installation is predominantly 3 phase in character when, with the permission of the Engineer first having been obtained, a neutral conductor of smaller cross-sectional area than the live conductors may be provided.
- (6) The internal portion of the overhead service connection shall consist of conductors in every case where it is necessary for the installation to be arranged for connection under the 3 phase 4 wire system.
- (7) All conductors comprising the 4 wire, 3 wire or 2 wire internal portion of the service connection as the case may be, shall be enclosed within one protection sheath or conduit.
- (8) The internal portion of the overhead service connection shall comprise shall comprise approved type insulated conductors or insulators conductors taped and braided or unarmoured cable, run throughout their length in approved conduit or alternatively a continuous, approved steelwire armoured cable.
- (9) All armoured cable shall be terminated with approved glands and bushes.
- (10) Where, owing to the number of bends required in conduit, the use of draw-in boxes is necessitated, they shall be suitably drilled for sealing and shall be sealed by the officials of the Council.
- (11) Within the meter box, the conduit or cable as the case may be, shall terminate unobscured position and the conductors shall remain visible throughout their length.

- (12) In buildings of unusual design and construction where the method of running the internal portion of the service connection may require special consideration, application shall be made to the Engineer for particulars of the requirements of the Council which shall be obtained before the work commences.
- (13) In the case of blocks of buildings containing a number of individual consumers, separate conduit and wiring or cable shall be installed from the common metering room or rooms to each individual consumer in the block of buildings. Each of such conduits and conductors or cables shall for the purposes of this by-law be classed as the internal portion of the service connection in terms of section 40 (1).
- (14) In all other cases, separate internal service connections shall be provided for each consumer, no common service connection being permitted for separate consumers.

### Internal Portion of Service Connection

- 40 (1) In the case of every installation, supply to which is given by means of an overhead service connection, the connection between the point on the exterior of the building at which the overhead conductors terminate and the service protective devices, shall be known as the internal portion of the service connection and shall be installed in conformity with the following provisions –
  - (a) the consumer shall, at his own cost and expense, provide, install and be responsible for the maintenance of the service connection between the point of termination of the external portion of service connection and the service protective devices on his premises;
  - (b) the consumer shall also provide and erect in a position selected by the Engineer the meterboards and adequate wiring for connecting to the meter or meters.
  - (c) where for any reason the internal portion of the existing service connection requires alteration in size, position or otherwise, the work shall be carried out by a contractor in accordance with these requirements, and
  - (d) no alterations, repairs or additions of any description shall be made to the service connection except with the express sanction in writing of the Engineer.
- (2) In the case of installations in large multi-consumer premises where rising mains are used to supply meter rooms on different floors, the mains between the termination of the Council's incoming cable and the meters of the individual consumers shall also be defined as the internal portion of the service connection, and the provisions of subsection (1) shall apply.

## External Portion of Service

- 41 (1) where connection between the supply mains and a consumer's premises is made by means of conductors supported overhead, such conductors shall terminate at a point external to the building in which the service, meter and service protective devices will be installed. The connection between the supply point on the supply mains and the point of termination shall be known as the external portion of the service connection. The point of termination at the building of the external portion of the service connection shall be decided by the Engineer.
- (2) In the case of low or medium voltage overhead service connections, the consumer shall, at his own cost and expense, provide any special support for the service connection which may be necessary to ensure a distance of 3,5 metres between the service connection and the ground in the neighbourhood of the point entry of the conductors into the building.
- (3) The consumer shall provide, fix and maintain any ducts, conduits or trenches which may be required by the Engineer for the purpose of drawing in underground service cables.

## Meter Accommodation

- 42 (1) The place for the erection of the metering equipment and service apparatus shall be approved and the consumer shall, at his own expense, maintain such place to the satisfaction of the Engineer. The Engineer shall give the consumer written notice of any items which may require attention. Such notice shall specify a fixed period during which the consumer shall attend to the specified items. Should the consumer fail attend to the specified items during the stated period, the Engineer shall have the right to take action and the consumer shall bear the cost of such action.
- (2) Where the metering equipment and service apparatus are to be fixed upon any portion of a partition wall, the consumer shall, if required by the Engineer, at his own expense, satisfactorily reinforce that portion for such Wall.
- (3) The consumer or in the case of a common meter position, the owner of the premises, shall, if required by the Engineer, provide adequate electric lighting in the space set aside for accommodating the metering equipment and service apparatus.
- (4) Where in the opinion of the Engineer, the position of the meter, service connection, protective devices or main distribution board becomes inconvenient for access or a source of danger to life or property or in any way becomes unsuitable, the consumer shall remove it to a new position with reasonable dispatch and the cost of such removal shall be borne by the consumer.

- (5) Where required by the Engineer, the consumer shall provide at his own cost and expense a metering room, cubicle or meter box of approved design at a point designated by the Engineer. Such metering room or cubicle shall be used only for the accommodation of the service equipment, metering equipment and protective devices and, if approved, the consumer's main circuit breaker and main protective devices.
- (6) Apparatus other than that used in connection with the supply of electricity shall not be accommodated in such a room, cubicle or box unless approved and the meter room shall not be used to store any other equipment or materials.
- (7) All meter rooms shall be secured by means of an approved padlock or night latch.

## **CHAPTER 4**

### **RESPONSIBILITIES OF THE COUNCIL**

#### **Service Connection**

- 43
- (1) Such work or such part of the work to be carried out by the Council at the cost of the consumer in connection with the service connection on his premises shall be decided by the Engineer from whom particulars thereof may be obtained upon application.
  - (2) Unless the Engineer decides otherwise, service connections will be laid underground whether the supply mains are laid underground or erected overhead.
  - (3) Unless otherwise approved, the Council shall provide only one service connection to a building or a block of buildings or to one registered erf.
  - (4) Where two or more erven are consolidated, only one service connection shall be permitted for the consolidated erf.
  - (5) No electrical installation shall be permitted to extend from one erf to another where the second erf has a separate source of supply, without the prior consent of the Engineer.

## CHAPTER 5

### ELECTRICAL SYSTEMS

#### Systems and Voltages of Supply

- 44 Supply shall be given at one or more of the following 50 Hz alternating current systems, but the system or systems selected will be at the discretion of the Engineer;
- (a) 250/500 volts single phase 2 or 3 wire system
  - (b) 500 volts 3 phase 3 wire system
  - (c) 220/380 volts 3 phase 4 wire system
  - (d) 250/433 volts 3 phase 4 wire system
  - (e) 132 000, 66 000, 22 000, 11 000 or 6 600 volts 3 phase 3 wire system.

#### Load Limitations

- 45
- (1) Where the estimated load calculated in terms of the Wiring Regulations does not exceed 20 kilovolt-amperes (kVA), the wiring installation shall be arranged for a single phase 2 wire supply unless otherwise approved by the Engineer.
  - (2) For multi-phase supplies, the load shall be approximately balanced and the current in the phases be within 15% of each other.
  - (3) No consuming device, inherently single phase in character and exceeding 15 kVA, shall be connected to the mains without the prior approval of the Engineer.

#### Limiting Size of Low Voltage Motors

- 46 Unless otherwise approved by the Engineer, the rating of a single phase low voltage motor shall be limited to 2 kW and to a starting current not exceeding 70 amperes. All motors exceeding this rating shall be wound for 3 phase supply at medium voltage or such other high voltage as may be required.

#### Motor Starting Currents

- 47
- (1) Unless otherwise required by the Engineer, the permitted starting currents of 3 phase medium voltage motors will be related to the capacity of the consumer's service connection as follows –

MAXIMUM STARTING AND ACCELERATING CURRENTS  
OF THREE PHASE ALTERNATING CURRENT MOTORS

- (2) Unless otherwise required by the Engineer, the starting current of a medium voltage motor shall be limited to 1,5 times the rated full load current of the transformer supplying such motor.
- (3) The starting arrangement for high voltage motors shall be subject to the approval of the Engineer.

### Frequent Starting of Motors

- 48 (1) The magnitude of the voltage change caused by starting any motor, expressed as a percentage of the nominal supply voltage, shall not exceed the maximum value indicated in Figure 1 (P47A), related to the number of starts per minute.
- (2) Notwithstanding the provisions of sections 47 (1), (2) and of subsection (1) of this section, the Engineer may at any time require the consumer to take approved steps at the consumer's expense to reduce the starting current of any motor or motors in an installation if he considers this necessary or desirable from a point of view of other consumers or of excessive loading on the Council's mains.

### Protection for Motors

- 49 The consumer shall provide electrical protection devices for motors of such design as will effectively prevent sustained over-current and "single phasing".
- 50 (1) The power factor of any load shall be maintained within the limits of 0,85 lagging and 0,9 leading.
- (2) Where, in order to comply with the provisions of subsection (1) it is necessary to install power factor corrective devices, unless the correction of the power factor is automatically controlled, such corrective devices shall be connected to the appliance terminals of individual appliances or equipment.

### Determination of Electricity Used by Metering

- 51 (1) The quantity of electricity supplied during any period shall be taken as the difference between the readings of the electricity meter at the beginning and the end of such period, read in conjunction with any multiplying or dividing constant applicable to such meter, except in the case where the meter is known to be inaccurate.
- (2) For the purpose of calculating the amount due and payable for the quantity of electricity consumed, the same amount of electricity shall be deemed to be consumed during every period of 24 hours between the readings contemplated by subsection (1).

## Metering of Premises

- 52
- (1) The Council shall provide and install metering equipment for measuring the energy and, if required, the demand supplied to a consumer from the service connection.
  - (2) Only one meter, or set of meters in the case of a three phase supply, shall be allowed per consumer for each tariff scale.
  - (3) The Council reserves the right to meter the supply to blocks of shops, flats, tenements and similar buildings individually, in sections or as a whole.
  - (4) Where any building referred to in subsection (3) is metered by the Council as a whole, the owner may provide and install appropriate sub-metering equipment for each shop, flat and tenement.
  - (5) Where sub-metering equipment is installed, accommodation separate from the Council's metering equipment shall be provided.

## Accuracy of Metering

- 53
- (1) Where meters are associated with instrument transformers, the provisions of this section shall be considered to apply to the metering as a whole.
  - (2) An electricity energy meter shall be conclusively presumed to be registering accurately if its error is found to be within plus or minus 2½ percent and the meter, when tested in the manner prescribed in subsection (4), does not creep.
  - (3) An electricity maximum demand meter shall be conclusively presumed to be registering accurately if its error is found to be within plus minus 3½ percent
  - (4) The meter shall be tested in accordance with the terms of Section 3.3 of the Code of Practice for the Testing of Electricity Meters, SABS 01 – 1953 as amended, and the average of those tests taken. Alternatively, an accurately calibrated check meter shall be temporarily installed and the error deduced comparative readings.
  - (5) The Council shall have the right at any time to test the meter. If it is established by test or otherwise that any meter does not measure accurately, the Council shall adjust the account rendered on the basis of calculation prescribed in subsection (8).
  - (6) The consumer shall have the right at any time to have the meter(s), on the readings of which his account is based, tested by the Council. The prescribed fee shall be payable before the test is carried and such fee shall be refunded if the meter is found to be in error. If the meter is found to be in error, an adjustment in accordance with the provisions of subsection (8) shall be made to the account.
  - (7) In case of a dispute, the consumer shall have the right to apply to a mutually acceptable authority to test the meter under dispute and the result of the test shall be final and binding on both parties. Should the error of the meter be found to be less than prescribed in subsections (2) or (3) as applicable, the consumer shall be required to pay the costs incurred.

- (8) Where a meter has been proven to be inaccurate, the consumer's account shall be adjusted in respect of not more than three accounts, based on actual meter reading, preceding the date on which the meter was found to be inaccurate, and the adjustment shall be based on either –
- (a) the error as determined according to subsection (4), or if this is not possible,
  - (b) the average consumption during the succeeding three metered periods after the metering defect has been rectified or,
  - (c) the consumption of electricity upon such premises recorded for the corresponding month of the previous year.

### Non-Metering Errors

- 54 Where any error, other than a metering error, results in the energy consumption and/or maximum demand being inaccurately determined, and if such error can be accurately established, then the Council shall have the right to adjust the consumer's account from the earliest date on which it can be proven that such error existed.

### Reading of Meters

- 55
- (1) Meters will be read at intervals as prescribed by the Council.
  - (2) Should the official deputed to read the metering be unable to gain access thereto, then Council reserves the right to render an estimated account.
  - (3) A special reading of the meter desired by the consumer may be obtained upon payment of the prescribed fee.
  - (4) The Council shall, in subsequent accounts, correct any error discovered in the accounting, reading or metering in respect of any account rendered to a consumer.

## **CHAPTER 6**

### **ELECTRICAL CONTRACTORS/PERMIT HOLDERS**

#### **Notice to be Given When Ready for Inspection**

- 56 At least five full working days before the supply is required, notice shall be given to the Engineer that the installation is ready for testing. On receipt of this notice, if so required by the Engineer, an inspector of the Council shall make an inspection and carry out a test.

#### **Appointment to Inspect and Test**

- 57 If the Contractor/Permit Holder wishes to present at the inspection and test, an appointment shall be made with the Engineer. Should the installation fail to pass the inspection and test, the Contractor/Permit Holder shall be charged the prescribed fees for a second and subsequent tests.

#### **Facilities for Inspection**

- 58 (1) Every facility shall be put at the disposal of the Engineer to inspect any parts of any installation connected to or intended to be connected to supply mains or at any time while work upon such installation is in progress.
- (2) The Contractor/Permit Holder shall, if required to do so under the direction of the Engineer, unscrew any fittings, connections, or other material or apparatus included in the installation, open any trap-doors or joint boxes, or lift flooring boards or remove ceilings and the replacement of parts so disturbed shall be done by the Contractor/Permit Holder at his own expense.
- (3) Floor boards or ceilings which have been removed for inspection purposes shall not be replaced until the installation has been passed.

#### **Failure to Pass Test and Inspection**

- 59 If an installation is found to be incomplete or defective or falls in any way to comply with this by-law or the Wiring Regulations, the Engineer shall have the right to refuse to connect the installation until such defect or failure shall have been remedied. The Engineer may give notice to the Contractor/Permit Holder of the respects in and extent to which the Installation is incomplete or defective or fails to comply with this by-law or the specified in such notice, comply with the terms of such notice. After the expiration of a reasonable time from the date of giving such notice, or the period stated therein, or upon prior receipt of a notice from the Contractor/Permit Holder that such work has been completed, the Engineer shall cause a further inspection and test of the installation to be made. The Council reserves the right to charge the prescribed fee for each of such Repeated inspections and tests made by the Engineer until the installation has been passed as complying with this by-law and the Wiring Regulations.

## **CHAPTER 7**

### **NOTICES, PENALTIES AND GENERAL**

#### **Service of Notices to Consumers**

- 60           Where any notice or other document is required by this by-law to be served on or given to any person, it may be sent by post to such person's last known place of abode or business or it may be served personally on such person or left with some inmate of his abode cannot with reasonable diligence be found, it may be affixed on some conspicuous part of his premises.

#### **Service of Notices to Engineer**

- 61           Any notice required to be given to the Engineer shall be deemed to have been duly given if:
- (a)       it has been delivered to the Engineer personally; or
  - (b)       it has been left at the offices of the Engineer with the official employed in the said offices, or
  - (b)       it has been received in the offices of the Engineer by post.

#### **Penalties for Breach of By-Law**

- 62       (1)     Any person who contravenes or fails to comply with any provision of this by-law or fails to comply fully with any notice or order duly served on or given to him in terms of this by-law within the time specified in such notice or order, shall be guilty of an offence and shall be liable on conviction to the penalties prescribed in Section 213 of the Municipal Ordinance, 1974 (Ordinance No 20 of 1974).
- (2)     The court convicting any person of a contravention of or a failure to comply with any provision of this by-law may, in addition to any other penalty, impose a further penalty equal to any costs and expenses found by the court to have been incurred by the Council as a result of such contravention or failure.

#### **Presumption Clause**

- 63           In the event of any breach of this by-law being committed on any premises, the consumer, if in occupation or the occupier of such premises, shall be deemed to have committed such breach unless he proves to the contrary on a balance of probabilities.

#### **Exercise of Certain Powers**

- 64           The powers conferred on the Council as a supplier of electricity by the Machinery and Occupational Safety Act, 1983 (Act No 6 of 1983) as amended, shall be exercised on behalf of the Council by the Engineer.

## Waiver of By-Law

- 65 The Council may, if it deems it desirable to do so, waive compliance with or permit deviations, exceptions and exemptions from any provision of this by-law subject to such conditions as it may deem fit.

## Arbitration

- 66 If at any time any difference or question arises between the Council and the consumer as to the construction, meaning or effect of this by-law or as to the rights, obligations or liabilities of either party thereunder, such difference or question or matter or thing so subject to agreement or adjustment shall be determined by the arbitration in such manner as may be agreed upon, and failing such, in terms of the provisions of the Arbitration Act 1965 (Act 42 of 1965), as amended.

## Repeal

- 67 The Electricity Supply By-Law promulgated under Provincial Notices 351 dated 14 April 1978 and the Standard Electricity By-Law for the Wiring of Premises promulgated under Provincial Notice 551 dated 26 September 1958, as amended in so far as it applies to the Port Elizabeth Municipality by virtue of its adoption by the Council of such Municipality and promulgation under Provincial Notice 1103 dated 3 November 1978, are hereby repealed.