

STANDARD DRAFT ELECTRICITY SUPPLY BY-LAW FOR REDs

NOTES ON VERSIONS

There are no versions 1 & 2 – This version for general application for REDs was developed from the Cape Town – RED1 version 3

In this version substitute the Municipality's name where "<Municipality's name>" occurs:

*In title on page 1,
Definition of Service Authority on page 4, and
Section 62 on page 25.*

Red wording added in version 1 of RED 1 version

Green wording added in RED 1 version 2 & 3 – Notes added to Version 3

Violet wording added in version 4 (Sections 8, 21 & 26)

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<Municipality's name>

ELECTRICITY SUPPLY BY-LAW

CHAPTER 1 GENERAL

1. Definitions - In this by-law, unless inconsistent with the context-

"accredited person" means a person registered in terms of the Regulations as an electrical tester for single phase, an installation electrician or a master installation electrician, as the case may be;

"applicable standard specification" means the standard specifications as listed in Schedule 1 attached to this by-law;

"certificate of compliance" means a certificate issued in terms of the Regulations in respect of an electrical installation or part of an electrical installation by an accredited person;

"consumer" in relation to premises means:

- (i) any occupier thereof or any other person with whom the **Service Provider** has contracted to supply or is actually supplying electricity thereat; or
- (ii) if such premises are not occupied, any person who has a valid existing agreement with the **Service Provider** for the supply of electricity to such premises; or
- (iii) if there is no such person or occupier, the owner of the premises;

"credit meter" means a meter where an account is issued subsequent to the consumption of electricity;

"electrical contractor" means an electrical contractor as defined in the Regulations;

"electrical installation" means an electrical installation as defined in the Regulations;

"high voltage" means the set of nominal voltage levels that are used in power systems for bulk transmission of electricity in the range of 44kV $U_n \leq 220 \text{ kV}$. [SANS 1019];

"low voltage" means the set of nominal voltage levels that are used for the distribution of electricity and whose upper limit is generally accepted to be an a.c. voltage of 1000V (or a d.c. voltage of 1500 V). [SANS 1019]

"the law" means any applicable law, proclamation, ordinance, act of parliament or enactment having force of law;

“medium voltage” means the set of nominal voltage levels that lie above low voltage and below high voltage in the range of $1 \text{ kV} < U_n \leq 44 \text{ kV}$. [SANS 1019]

“meter” means a device which records the demand and/or the electrical energy consumed and includes conventional and prepayment meters;

"motor load, total connected" means the sum total of the kW input ratings of all the individual motors connected to an installation;

"motor rating" means the maximum continuous kW output of a motor as stated on the maker's rating plate;

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

"occupier" in relation to any premises means-

- (a) any person in actual occupation of such premises;
- (b) any person legally entitled to occupy such premises;
- (c) in the case of such 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 in control of such premises or responsible for the management thereof, and includes the agent of any such person when he/she is absent from the Republic of South Africa or his/her whereabouts are unknown;

"owner" in relation to premises means the person in whom is vested the legal title thereto; provided that-

- (a) in the case of immovable property-
 - (i) leased for a period of not less than 50 years, whether the lease is registered or not, the lessee thereof, or
 - (ii) beneficially occupied under a servitude or right analogous thereto, the occupier thereof;
- (b) if the owner as hereinbefore defined-
 - (i) is deceased or insolvent, has assigned his estate for the benefit of his creditors, has been placed under curatorship by order of court or is a company being wound up or under judicial management, the person in whom the administration of such property is vested as executor, administrator, trustee, assignee, curator, liquidator or judicial manager, as the case may be, or
 - (ii) is absent from the Republic of South Africa, or if his address is unknown to the **Service Provider**, any person who as agent or otherwise receives or is entitled to receive the rent in respect of such property, and
 - (iii) if the **Service Provider** is unable to determine who such person is, the person who is entitled to the beneficial use of such property,

shall be deemed to be the owner thereof to the exclusion of the person in whom is vested the legal title thereto;

"point of consumption" means a point of consumption as defined in the Regulations;

"point of metering" means the point at which the consumer's consumption of electricity is metered and which may be at the point of supply or at any other point on the distribution system of the **Service Provider** or the electrical installation of the consumer, as specified by the **Service Provider** or any duly authorised official of the **Service Provider**; provided that it shall meter all of, and only, the consumer's consumption of electricity;

"point of supply" means the point determined by the **Service Provider** or any duly authorised official of the **Service Provider** at which electricity is supplied to any premises by the **Service Provider**;

"premises" means any land or any building or structure above or below ground level and includes any vehicle, aircraft or vessel;

"prepayment meter" means a meter that can be programmed to allow the flow of pre-purchased amounts of energy in an electrical circuit;

"Regulations" means Regulations made in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), as amended;

"retail wheeling" means the process of moving third party electricity from a point of generation across the distribution systems of the **Service Provider** and selling it to a customer;

"safety standard" means the Code of Practice for the Wiring of Premises SANS 10142-1 incorporated in the Regulations;

"Service Authority" means the authority of the *<Municipality's name>*, a municipality established in terms of the law to regulate the provision of an electricity service within the jurisdiction of the *<Municipality's name>*;

"service connection" means all cables and equipment required to connect the supply mains to the electrical installation of the consumer at the point of supply;

"service protective device" means any fuse or circuit breaker installed for the purpose of protecting the **Service Provider's** equipment from overloads or faults occurring on the installation or on the internal service connection;

"Service Provider" means the municipal entity, Regional Electricity Distributor ONE (Pty) (Ltd), duly authorized by the Service Authority to provide an electricity service within the jurisdiction of the Service Authority, in accordance with the provision of the Service Delivery Agreement concluded with the Service Authority;

"standby supply" means an alternative electricity supply not normally used by the consumer;

"supply mains" means any part of the **Service Provider's** electricity network;

"tariff" means the **Service Provider's** tariff of charges for the supply of electricity, and

"token" means the essential element of a prepayment metering system used to transfer information from a point of sale for electricity credit to a prepayment meter and *vice versa*;

"voltage" means the root-mean-square value of electrical potential between two conductors.

2. **Other terms** - 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, or the Occupational Health and Safety Act, 1993 (Act 85 of 1993), as amended.
3. **Headings and titles** - The headings and titles in this by-law shall not affect the construction thereof.

CHAPTER 2 GENERAL CONDITIONS OF SUPPLY

4. **Provision of Electricity Services –**
 - (1) Only the **Service Provider** shall supply or contract for the supply of electricity within the jurisdiction of the **Service Authority**.
 - (2) The **Service Provider** may permit the retail wheeling of electricity through its network by another electricity supplier that is licensed for the trading of electricity in terms of the Electricity Regulation Act to the customers of this electricity supplier.
5. **Supply by agreement –**
 - (1) No person shall use or be entitled to use an electricity supply from the **Service Provider** unless or until such person shall have entered into an agreement in writing with the **Service Provider** for such supply, and such agreement together with the provisions of this by-law shall in all respects govern such supply. If a person uses an electricity supply without entering into an agreement he/she shall be liable for the cost of electricity used as stated in section 44 of this bylaw.
 - (2) Any consumer supply agreement concluded with the **Service Authority** or Eskom prior to appointment of the **Service Provider** by the **Service Authority** will be deemed to have been ceded to the **Service Provider**.
NOTE: The legality of this section needs to be checked
 - (3) Should the **Service Authority** appoint a different service provider at any date in the future, supply agreements with consumers of the **Service Provider** shall be ceded to this new service provider.
6. **Service of notice -**
 - (1) Any notice or other document that is served on any person in terms of this by-law is regarded as having been served-
 - (a) when it has been delivered to that person personally;

- (b) when it has been left at that person's place of residence or business in the Republic with a person apparently over the age of sixteen years;
 - (c) when it has been posted by registered or certified mail to that person's last known residential or business address in the Republic and an acknowledgement of the posting thereof from the postal service is obtained;
 - (d) if that person's address in the Republic is unknown, when it has been served on that person's agent or representative in the Republic in the manner provided by paragraphs (a), (b) or (c); or
 - (e) if that person's address and agent or representative in the Republic is unknown, when it has been posted in a conspicuous place on the property or premises, if any, to which it relates.
- (2) When any notice or other document must be authorised or served on the owner, occupier or holder of any property or right in any property, it is sufficient if that person is described in the notice or other document as the owner, occupier or holder of the property or right in question, and it is not necessary to name that person.
- (3) Any legal process is effectively and sufficiently served on the **Service Provider** when it is delivered to the **chief executive officer of the Service Provider** or a person in attendance at the **chief executive officer's** office.
7. **Compliance with notices** - Any person on whom a notice duly issued or given under this by-law is served shall, within the time specified in such notice, comply with its terms.
8. **Application for supply** -
- (1) Application for the supply of electricity shall be made in writing by the prospective consumer on the prescribed form obtainable at the office of the **Service Provider**, and the estimated load, in kVA, of the installation, shall be stated therein. Such application shall be made as early as possible before the supply of electricity is required in order to facilitate the work of the **Service Provider**.
 - (2) Applicants for the supply of electricity shall submit the following documents with their application:
 - (a) An identity document or passport, and, in the case of a business, a letter of resolution delegating the authority to the applicant.
 - (b) A valid lease agreement, in the case of a tenant, or, in the case of an owner, a Deed of Sale or other proof of ownership of the premises for which a supply of electricity is required.
 - (3) An application for a **new** electricity supply for a period of less than one year shall be regarded as an application for a temporary supply of electricity and shall be considered at the discretion of the **Service Provider** or any duly authorised official of the **Service Provider**, which may specify any special conditions to be satisfied in such case.

9. **Processing of requests for supply** - Applications for the supply of electricity will be processed and the supply made available within the periods stipulated in NRS 047.

10. **Wayleaves** -

- (1) The **Service Provider** may refuse to lay or erect a service connection above or below ground on any thoroughfare or land not vested in the **Service Authority** or on any private property, unless and until the prospective consumer shall have obtained and deposited with the **Service Provider** written permission granted by the owner of the said private property or by the person in whom is vested the legal title to the land or thoroughfare as aforesaid exists, as the case may be, authorising the laying or erection of a service connection thereon.
- (2) If such permission is withdrawn at any time or if the aforesaid private property or thoroughfare changes ownership and the new owner refuses to grant or continue such permission, the cost of any alteration required to be made to a service connection in order that the supply of electricity may be continued, and of any removal thereof which may become necessary in the circumstances, shall be borne by the consumer to whose premises the supply of electricity is required to be continued.

11. **Statutory Servitude** –

Note: It is deemed necessary to leave this section in the By-law as the Electricity Regulation Act (ERA) in section 25 - Rights over streets - covers public streets/squares only and not private property, and refers to the "licensee". If Section 4 of ERA, which deals with "Reticulation", is published, whereby municipalities can supply electricity without a holding a licence, this section of the By-law will be required. (Check the legality of this statement.)

- (1) Subject to the provisions of subsection (3) the **Service Provider** may within the municipal area of the **Service Authority**:
 - (a) provide, establish and maintain electricity services;
 - (b) acquire, construct, lay, extend, enlarge, divert, maintain, repair, discontinue the use of, close up and destroy electricity supply mains;
 - (c) construct, erect or lay any electricity supply main on, across, through, over or under any street or immovable property and the ownership of any such main shall vest in the **Service Authority**;
 - (d) do any other thing necessary or desirable for or incidental, supplementary or ancillary to any matter contemplated by paragraphs (a) to (c).
- (2) If the **Service Provider** constructs, erects or lays any electricity supply main on, across, through, over or under any street or immovable property not owned by the **Service Authority** or under the control of or management of the **Service Authority** it shall pay to the owner of such street or property compensation in an amount agreed upon by such owner and the **Service Provider** or, in the absence of agreement, as determined either by arbitration or a court of law.
- (3) The **Service Provider** shall, before commencing any work other than repairs or maintenance on or in connection with any electricity supply

main on immovable property not owned by the **Service Authority** or under the control or management of the **Service Authority**, give the owner or occupier of such property reasonable notice of the proposed work and the date on which it proposes to commence such work.

12. Right of admittance to inspect, test and/or do maintenance work –

Note: Similar comment to that under section 11 above, re “licensee” and possibility that municipalities might not need to hold a licence for “Reticulation”, therefore section left in.

- (1) The **Service Provider** shall, through its employees, contractors and their assistants and advisers, have access to or over any property for the purposes of-
 - (a) doing anything authorised or required to be done by the **Service Provider** under this by-law or any other law;
 - (b) inspecting and examining any service mains and anything connected therewith;
 - (c) enquiring into and investigating any possible source of electricity supply or the suitability of immovable property for any work, scheme or undertaking of the **Service Provider** and making any necessary survey in connection therewith;
 - (d) ascertaining whether there is or has been a contravention of the provisions of this by-law or any other law, and
 - (e) enforcing compliance with the provisions of this by-law or any other law,
- (2) The **Service Provider** shall pay to any person suffering damage as a result of the exercise of the right of access contemplated by sub-section (1), except where the **Service Provider** is authorised to execute on the property concerned any work at the cost of such person or some other person or to execute on such property any work and recover the cost thereof from such person or some other person, compensation in such amount as may be agreed upon by the **Service Provider** and such person or, in the absence of agreement, as may be determined by arbitration or court of law.
- (3) An employee of the **Service Provider** authorised thereto by such **Service Provider** may, by notice in writing served on the owner or occupier of any property, require such owner or occupier to provide, on the day and at the hour specified in such notice, access to such property to a person and for a purpose referred to in sub-section (1).
- (4) The **Service Provider** may gain access to or over any property without notice and may take whatever action as may, in its opinion, be necessary or desirable in consequence of the existence of a state of war or the occurrence of any calamity, emergency or disaster.

13. Refusal or failure to give information - No person shall refuse or fail to give such information as may be reasonably required of him/her by any duly authorised official of the **Service Provider** or render any false information to any such official regarding any electrical installation work completed or contemplated.

14. Refusal of admittance - No person shall wilfully hinder, obstruct, interfere with or refuse admittance to any duly authorised official of the **Service**

Provider in the performance of his duty under this by-law or of any duty connected therewith or relating thereto.

15. **Improper use** - If the consumer uses the electricity for any purpose or deals with the electricity in any manner which the **Service Provider** has reasonable grounds for believing interferes in an improper or unsafe manner or is calculated to interfere in an improper or unsafe manner with the efficient supply of electricity to any other consumer, the **Service Provider** may, with or without notice, disconnect the electricity supply but such supply shall be restored as soon as the cause for the disconnection has been permanently remedied or removed. The fee as prescribed by the **Service Provider** for the disconnection and reconnection shall be paid by the consumer before the electricity supply is restored, unless it can be shown that the consumer did not use or deal with the electricity in an improper or unsafe manner.
16. **Electricity tariffs and fees** - Copies of charges and fees may be obtained free of charge at the offices of the **Service Provider**.
17. **Deposits** - The **Service Provider** reserves the right to require the consumer to deposit a sum of money as security in payment of any charges which are due or may become due to the **Service Provider**. The amount of the deposit in respect of each electricity installation shall be determined by the **Service Provider**, and each such deposit may be increased if the **Service Provider** deems the deposit held to be inadequate. Such deposit shall not be regarded as being in payment or part payment of any accounts due for the supply of electricity for the purpose of obtaining any discount provided for in the electricity tariff referred to in this by-law. On cessation of the supply of electricity, the amount of such deposit, free of any interest, less any payments due to the **Service Provider** shall be refunded to the consumer.
18. **Payment of charges** -
 - (1) The consumer shall be liable for all charges listed in the prescribed tariff for the electricity service as approved by the **Service Authority**. The consumer may also be required to pay all charges of other services supplied by the **Service Authority** to ensure a continued supply of electricity.
 - (2) All accounts shall be deemed to be payable when issued by the **Service Provider** and each account shall, on its face, reflect the due date and a warning indicating that the supply of electricity may be disconnected should the charges in respect of such supply remain unpaid after the due date.
 - (3) 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/herself that the account rendered is in accordance with the prescribed tariff of charges in respect of electricity supplied to the premises.
 - (4) Where a duly authorised official of the **Service Provider** has visited the premises for the purpose of disconnecting the supply of electricity in terms of subsection (2) and he/she is obstructed or prevented from effecting such disconnection, the prescribed fee shall become

payable for each visit necessary for the purpose of such disconnection.

- (5) After disconnection for non-payment of an account, the prescribed fees and any amounts due for electricity consumed shall be paid before the electricity supply is re-connected.

19. Interest on overdue accounts - The **Service Provider** may charge interest on accounts which are not paid by the due date appearing on the account, at an interest rate as approved by the **Service Provider** from time to time.

20. Principles for the resale of electricity –

- (1) In terms of the Electricity Regulation Act, resellers need to hold a trading licence issued by the National Energy Regulator of South Africa.

[I have requested clarity from NERSA re this statement]

- (2) Unless otherwise authorised by the **Service Provider**, no person shall sell or supply electricity, supplied to his/her premises under an agreement with the **Service Provider**, to any other person or persons for use on any other premises, or permit or suffer such resale or supply to take place. If electricity is resold for use upon the same premises, the electricity resold shall be measured by a submeter of a type which has been approved by the South African Bureau of Standards and supplied, installed and programmed in accordance with the standards of the **Service Provider**.

- (3) The tariff, rates and charges at which and the conditions of sale under which electricity is thus resold shall not be less favourable to the purchaser than those that would have been payable and applicable had the purchaser been supplied directly with electricity by the **Service Provider**. Every reseller shall furnish the purchaser with monthly accounts that are at least as detailed as the relevant billing information details provided by the **Service Provider** to its electricity consumers.

21. Right to disconnect supply –

- (1) The **Service Provider** shall have the right to disconnect the supply of electricity to any premises if the person liable to pay for such supply fails to pay any charge due to the **Service Provider** in connection with any supply of electricity which he/she may at any time have received from the **Service Provider** in respect of such premises, or, where any of the provisions of this by-law and/or the Regulations are being contravened, provided the **Service Provider** has given the person 14 (fourteen) days notice to remedy his/her default and the person has failed to remedy such default after notice has been given, or, in the case of a grave risk to person or property, or as envisaged in terms of Section 26 of this by-law, without notice. After disconnection for non-payment of accounts, the improper or unsafe use of electricity, or, where any of the provisions of this by-law and/or the Regulations are being contravened, the fee as prescribed by the **Service Provider** shall be paid.

- (2) The Service Authority shall have the right to request the Service Provider to disconnect the supply of electricity to any premises where there are outstanding charges for other services supplied by the Service Authority to such premises, and the person liable for the payment of such charges fails to do so.
- (3) In the case where an installation has been illegally reconnected on a consumer's premises after having been previously legally disconnected by the Service Provider, or in the case where the Service Provider's electrical equipment has been tampered with to prevent the full registration of consumption by the meter, the electricity supply may be physically removed from those premises.
- 22. Non-liability of the Service Authority or Service Provider-** Neither the Service Authority nor the Service Provider shall be liable for any loss or damage, direct or consequential, suffered or sustained by a consumer as a result of or arising from the cessation, interruption or any other abnormality of the supply of electricity, unless caused by negligence on the part of the Service Provider.
- 23. Leakage of electricity** - Under no circumstances shall any rebate be allowed on the account for electricity supplied and metered in respect of electricity wasted owing to leakage or any other fault in the electrical installation.
- 24. Failure of supply** - The Service Provider does not undertake to attend to a failure of supply of electricity due to a fault in the electrical installation of the consumer, except when such failure is due to the operation of the service protective device of the Service Provider. When any failure of supply of electricity is found to be due to a fault in the electrical installation of the consumer or to the faulty operation of apparatus used in connection therewith, the Service Provider shall have the right to charge the consumer the fee as prescribed by the Service Provider for each restoration of the supply of electricity in addition to the cost of making good or repairing any damage which may have been done to the service main and meter by such fault or faulty operation as aforesaid.
- 25. Seals of the Service Provider** - The meter, service protective devices and all apparatus belonging to the Service Provider shall be sealed or locked by a duly authorised official of the Service Provider, and no person not being an official of the Service Provider duly authorised thereto shall in any manner or for any reason whatsoever remove, break, deface, or tamper or interfere with such seals or locks.
- 26. Tampering with service connection or supply mains -**
- (1) No person shall in any manner or for any reason whatsoever tamper with, interfere with or vandalize any meter or metering equipment or service connection or service protective device or supply mains or any other equipment of the Service Provider.
- (2) (2) Where prima facie evidence exists of a consumer and/or any person having contravened sub-section(1), the Service Provider shall have the right to disconnect the supply of electricity immediately and without prior

notice to the consumer. The person shall be liable for all fees and charges levied by the **Service Provider** for such disconnection. Where interference or damage is caused persons other than registered consumers, legal action may be instituted against such persons.

Note: These additions, in (1) & (2) above, are to be discussed with the Legal Adviser – aim is to be able to take action against those who vandalize distribution equipment.

- (3) Where a consumer and/or any person has contravened subsection(1) and such contravention has resulted in the meter recording less than the true consumption, the **Service Provider** shall have the right to recover from the consumer the full cost of his estimated consumption.

27. Protection of **Service Provider's** supply mains -

- (1) No person shall, except with the consent of the **Service Provider** and subject to such conditions as may be imposed –
- (a) construct, erect or lay, or permit the construction, erection or laying of any building, structure or other object, or plant trees or vegetation over or in such a position or in such a manner as to interfere with or endanger the supply mains
 - (b) excavate, open up or remove the ground above, next to, under or near any part of the supply mains
 - (c) damage, endanger, remove or destroy, or do any act likely to damage, endanger or destroy any part of the supply mains
 - (d) make any unauthorized connection to any part of the supply mains or divert or cause to be diverted any electricity there from.
 - (e) The owner or occupier shall limit the height of trees or length of projecting branches in the proximity of overhead lines or provide a means of protection which in the opinion of the **Service Provider** will adequately prevent the tree from interfering with the conductors should the tree or branch fall or be cut down. Should the owner fail to observe this provision the **Service Provider** shall have the right, after prior written notification, or at any time in an emergency, to cut or trim the trees or other vegetation in such a manner as to comply with this provision and shall be entitled to enter the property for this purpose.
- (2) The **Service Provider** may subject to obtaining an order of court demolish, alter or other wise deal with any building, structure or other object constructed, erected or laid in contravention with this by-law.

- (3) The **Service Provider** may in the case of an emergency or disaster remove anything damaging, obstructing or endangering or likely to damage, obstruct, endanger or destroy any part of the electrical distribution system.
- 28. Prevention of tampering with service connection or supply mains** - If the **Service Provider** decides that it is necessary or desirable to take special precautions in order to prevent tampering with any portion of the supply mains, service connection or service protective device or meter or metering equipment, the consumer shall either supply and install the necessary protection or pay the costs involved where such protection is supplied by the **Service Provider**.
 - 29. Unauthorised connections** - No person other than a person specifically authorised thereto by the **Service Provider** in writing shall directly or indirectly connect, attempt to connect or cause or permit to be connected any electrical installation or part thereof to the supply mains or service connection.
 - 30. Unauthorised reconnections** -
 - (1) No person other than a person specifically authorised thereto by the **Service Provider** in writing shall reconnect, attempt to reconnect or cause or permit to be reconnected to the supply mains or service connection any electrical installation or installations which has or have been disconnected by the **Service Provider**.
 - (2) Where the supply of electricity that has previously been disconnected is found to have been reconnected, the consumer using the supply of electricity shall be liable for all charges for electricity consumed between the date of disconnection and the date the electricity supply was found to be reconnected and any other charges raised in this regard. Furthermore, the **Service Provider** reserves the right to remove part or all of the supply equipment until such time as payment has been received in full. In addition, the consumer will be responsible for all the costs associated with the reinstatement of such supply equipment.
 - 31. Temporary disconnection and reconnection** -
 - (1) The **Service Provider** shall, at the request of the consumer, temporarily disconnect and reconnect the supply of electricity to the consumer's electrical installation upon payment of the fee as prescribed by the **Service Provider** for each such disconnection and subsequent reconnection.
 - (2) In the event of the necessity arising for the **Service Provider** to effect a temporary disconnection and reconnection of the supply of electricity to a consumer's electrical installation and the consumer is in no way responsible for bringing about this necessity, the **Service Provider** shall waive payment of the fee hereinbefore referred to.
 - (3) The **Service Provider** may only under exceptional circumstances temporarily disconnect the supply of electricity to any premises without notice, for the purpose of effecting repairs or carrying out

tests or for any other legitimate purpose. In all other instances adequate notice shall be given.

- 32. Temporary supplies** - It shall be a condition of the giving of any temporary supply of electricity, as defined in this by-law, that, if such supply is found to interfere with the efficient and economical supply of electricity to other consumers, the **Service Provider** shall have the right, with notice, or under exceptional circumstances without notice, to terminate such temporary supply at any time and, **neither the Service Authority nor the Service Provider** shall be liable for any loss or damage occasioned by the consumer by such termination.
- 33. Temporary work** - Electrical installations requiring a temporary supply of electricity shall not be connected directly or indirectly to the supply mains except with the special permission in writing of the **Service Provider**. Full information as to the reasons for and nature of such temporary work shall accompany the application for the aforesaid permission, and the **Service Provider** may refuse such permission or may grant the same upon such terms and conditions as it may appear desirable and necessary.
- 34. Load reduction -**
- (1) At times of peak load, or in an emergency, or when, in the opinion of the **Service Provider**, it is necessary for any reason to reduce the load on the electricity supply system of the **Service Provider**, the **Service Provider** may without notice interrupt and, for such period as the **Service Provider** may deem necessary, discontinue the electricity supply to any consumer's electrically operated thermal storage water heater or any specific appliance or the whole installation. **Neither the Service Authority nor the Service Provider** shall be liable for any loss or damage directly or consequentially due to or arising from such interruption and discontinuance of the electricity supply.
 - (2) The **Service Provider** may install upon the premises of the consumer such apparatus and equipment as may be necessary to give effect to the provisions of subsection (1), and any duly authorised official of the **Service Provider** may at any reasonable time enter any premises for the purpose of installing, inspecting, testing adjusting and/or changing such apparatus and equipment.
 - (3) Notwithstanding the provisions of sub-section (2), the consumer or the owner, as the case may be, shall, when installing an electrically operated water storage heater, provide such necessary accommodation and wiring as the **Service Provider** may decide to facilitate the later installation of the apparatus and equipment referred to in sub-section (2).
- 35. High, medium and low voltage switchgear and equipment -**
- (1) In cases where a supply of electricity is given at either high, medium or low voltage, the supply and installation of the switchgear, cables and equipment forming part of the service connection shall, unless otherwise approved by the **Service Provider** or any duly authorised official of the **Service Provider**, be paid for by the consumer.

- (2) All such equipment installed on the consumer's premises shall be compatible with the **Service Provider's** electrical performance standards
- (3) No person shall open, close, isolate, link or earth high or medium voltage switchgear or equipment without giving reasonable prior notice to the **Service Provider's** System Control Centre.
- (4) In the case of a high or medium voltage supply of electricity, where the consumer has high or medium voltage switchgear installed, the **Service Provider** shall be advised of the competent person appointed by the consumer in terms of the Regulations, and of any changes made to such appointments.
- (5) In the case of a low voltage supply of electricity, the consumer shall provide and install a low voltage main switch and/or any other equipment required by the **Service Provider** or any duly authorised official of the **Service Provider**.

- 36. Substation accommodation** - The **Service Provider** may, on such conditions as may be deemed fit by the **Service Provider** or any duly authorised official of the **Service Provider**, require the owner to provide and maintain accommodation which shall constitute a substation and which shall consist of a separate room or rooms to be used exclusively for the purpose of housing medium voltage cables and switchgear, transformers, low voltage cables and switchgear and other equipment necessary for the supply of electricity requested by the applicant. The accommodation shall be situated at a point to which free, adequate and unrestricted access is available at all times for purposes connected with the operation and maintenance of the equipment.

The **Service Provider** reserves the right to supply its own networks from its own equipment installed in such accommodation, and if additional accommodation is required by the **Service Provider**, such additional accommodation shall be provided by the applicant at the cost of the **Service Provider**.

- 37. Wiring diagram and specification** -

- (1) When more than one electrical installation or electricity supply from a common main or more than one distribution board or meter is required for any building or block of buildings, the wiring diagram of the circuits starting from the main switch and a specification shall on request be supplied to the **Service Provider** in duplicate for approval before the work commences.
- (2) Where an electrical installation is to be supplied from a substation on the same premises on which the current is transformed from high voltage, or from one of the substations of the **Service Provider** through mains separate from the general distribution system, a complete specification and drawings for the plant to be installed by the consumer shall, if so required, be forwarded to the **Service Provider** for approval before any material in connection therewith is ordered.

- 38. Standby supply** - No person shall be entitled to a standby supply of electricity from the **Service Provider** for any premises having a separate

source of electricity supply except with the written consent of the **Service Provider** and subject to such terms and conditions as may be laid down by the **Service Provider**.

39. Consumer's emergency standby supply equipment –

- (1) No emergency standby equipment provided by a consumer in terms of any Regulations or for his own operational requirements shall be connected to any installation without the prior written approval of the **Service Provider**. Application for such approval shall be made in writing and shall include a full specification of the equipment and a wiring diagram. The standby equipment shall be so designed and installed that it is impossible for the **Service Provider's** supply mains to be energized by means of a back-feed from such equipment. The consumer shall be responsible for providing and installing all such protective equipment.
- (2) Where by special agreement with the **Service Provider**, the consumer's standby generating equipment is permitted to be electrically coupled to, and run in parallel with the **Service Provider's** supply mains, the consumer shall be responsible for providing, installing and maintaining all the necessary synchronizing and protective equipment required for such safe parallel operation, to the satisfaction of the **Service Provider**.

- 40. Technical Standards** - The **Service Provider** may from time to time issue **Technical Standards** detailing the requirements of the **Service Provider** regarding matters not specifically covered in the Regulations or this by-law but which are necessary for the safe, efficient operation and management of the supply of electricity.

CHAPTER 3
RESPONSIBILITIES OF CONSUMERS

- 41. Consumer to erect and maintain electrical installation** - Any electrical installation connected or to be connected to the supply mains, and any additions or alterations thereto which may be made from time to time, shall be provided and erected and maintained and kept in good order by the consumer at his own expense and in accordance with this by-law and the Regulations.
- 42. Fault in electrical installation -**
- (1) If any fault develops in the electrical installation, which constitutes a hazard to persons, livestock or property, the consumer shall immediately disconnect the electricity supply. The consumer shall without delay give notice thereof to the **Service Provider** and shall immediately take steps to remedy the fault.
 - (2) The **Service Provider** may require the consumer to reimburse it for any expense to which it may be put in connection with a fault in the electrical installation.
- 43. Discontinuance of use of supply** - In the event of a consumer desiring to discontinue using the electricity supply, he/she shall give at least two full

working days' notice in writing of such intended discontinuance to the **Service Provider**, failing which he/she shall remain liable for all payments due in terms of the tariff for the supply of electricity until the expiration of two full working days after such notice has been given.

44. Change of occupier -

- (1) A consumer vacating any premises shall give the **Service Provider** not less than two full working days' notice in writing of his intention to discontinue using the electricity supply, failing which he/she shall remain liable for such supply.
- (2) If the person taking over occupation of the premises desires to continue using the electricity supply, he/she shall make application in accordance with the provisions of section 5 of this by-law, and if he/she fails to make application for an electricity supply within ten working days of taking occupation of the premises, the supply of electricity shall be disconnected, and he/she shall be liable to the **Service Provider** for the electricity supply from the date of occupation until such time as the supply is so disconnected.
- (3) Where premises are fitted with pre-payment meters any person occupying the premises at that time shall be deemed to be the consumer. Until such time as an application is made by this person for a supply of electricity, in terms of section 5 of this by-law, he/she shall be liable for all charges and fees owed to the **Service Provider** for that metering point as well as any outstanding charges and fees whether accrued by that person or not.

45. Service apparatus -

- (1) The consumer shall be liable for all costs to the **Service Provider** arising from damage to or loss of any metering equipment, service protective device, service connection or other apparatus on the premises, unless such damage or loss is shown to have been occasioned by an Act of God or an act or omission of an employee of the **Service Provider** or caused by an abnormality in the supply of electricity to the premises.
- (2) If, during a period of disconnection of an installation from the supply mains, the service main, metering equipment or any other service apparatus, being the property of the **Service Provider** and having been previously used, have been removed without its permission or have been damaged so as to render reconnection dangerous, the owner or occupier of the premises, as the case may be, during such period shall bear the cost of overhauling and/or replacing such equipment.
- (3) Where there is a common metering position, the liability detailed in subsection (1) shall devolve on the owner of the premises.
- (4) The amount due in terms of subsection (1) shall be evidenced by a certificate from the **Service Provider** which shall be final and binding.

46. Service connection -

- (1) The consumer shall bear the cost of the service connection, as approved by the **Service Provider**.
- (2) Notwithstanding the fact that the consumer bears the cost of the service connection, ownership of the service connection, laid or erected by the **Service Provider**, shall vest in the **Service Provider**, the **Service Provider** shall be responsible for the maintenance of such service connection up to the point of supply. The consumer shall not be entitled to any compensation from the **Service Provider** in respect of such service connection.
- (3) The work to be carried out by the **Service Provider** at the cost of the consumer for a service connection to the consumer's premises shall be determined by the **Service Provider** or any duly authorised official of the **Service Provider**.
- (4) The consumer shall provide, fix and/or maintain on his premises such ducts, wireways, trenches, fastenings and clearance to overhead supply mains as may be required by the **Service Provider** for the installation of the service connection.
- (5) Unless otherwise approved by a duly authorized official of the **Service Provider**, each registered erf shall only be provided with one service connection. Where two or more premises belonging to one owner are situated on adjacent erven and the owner operates the properties in a consolidated manner, for safety considerations, only a single bulk supply of electricity shall be made available to such erven.
- (6) Any covers of a wireway carrying the supply circuit from the point of supply to the metering equipment shall be made to accept the seals of the **Service Provider**.
- (7) Within the meterbox, the service conductor or cable, as the case may be, shall terminate in an unobscured position and the conductors shall be visible throughout their length when cover plates, if present, are removed.
- (8) In the case of blocks of buildings occupied by a number of individual consumers, separate wireways and conductors or cables shall be laid from the common metering room or rooms to each individual consumer in the blocks of buildings. Alternatively, if trunking is used, the conductors of the individual circuits shall be clearly identified (tied together every 1,5m) throughout their length.

47. Metering accommodation -

- (1) The consumer shall, if required by the **Service Provider** or any duly authorised official of the **Service Provider**, provide accommodation in an approved position, the meter board and adequate conductors for the **Service Provider's** metering equipment, service apparatus and protective devices. Such accommodation and protection shall be provided and maintained, to the satisfaction of the **Service Provider**,

at the cost of the consumer or the owner, as the circumstances may demand, and shall be situated, in the case of credit meters, at a point to which free and unrestricted access shall be had at all reasonable hours for the reading of meters but at all times for purposes connected with the operation and maintenance of the service equipment. Access at all reasonable hours shall be afforded for the inspection of prepayment meters.

- (2) Where submetering equipment is installed, accommodation separate from the **Service Provider's** metering equipment shall be provided.
- (3) The consumer or, in the case of a common meter position, the owner of the premises shall provide adequate electric lighting in the space set aside for accommodating the metering equipment and service apparatus.
- (4) Where in the opinion of the **Service Provider** the position of the meter, service connection, protective devices or main distribution board is no longer readily accessible or becomes a course of danger to life or property or in any way becomes unsuitable, the consumer shall remove it to a new position, and the cost of such removal, which shall be carried out with reasonable dispatch, shall be borne by the consumer.
- (5) The accommodation for the **Service Provider's** metering equipment and protective devices may, if approved, include the consumer's main switch and main protective devices. No apparatus other than that used in connection with the supply of electricity and use of electricity shall be installed or stored in such accommodation unless approved.

CHAPTER 5 SYSTEMS OF SUPPLY

48. Load requirements - Alternating current supplies shall be given as prescribed by the **Electricity Regulation Act, 2006** (Act 4 of 2006), and in the absence of a quality of supply agreement, as set out in the applicable standard specification.

49. Load limitations -

- (1) Where the estimated load, calculated in terms of the safety standard, does not exceed 15 kVA, the electrical installation shall be arranged for a two-wire single-phase supply of electricity, unless otherwise approved by the **Service Provider** or any duly authorised official of the **Service Provider**.
- (2) Where a three-phase four-wire supply of electricity is provided, the load shall be approximately balanced over the three phases but the maximum out-of-balance load shall not exceed 15kVA, unless otherwise approved by the **Service Provider** or any duly authorised official of the **Service Provider**.
- (3) No current-consuming appliance, inherently single phase in character, with a rating which exceeds 15kVA shall be connected to

the electrical installation without the prior approval of the **Service Provider**.

50. Interference with other persons' electrical equipment –

- (1) No person shall operate electrical equipment having load characteristics which, singly or collectively, give rise to voltage variations, harmonic currents or voltages, or unbalanced phase currents which fall outside the applicable standard specification.
- (2) The assessment of interference with other persons' electrical equipment shall be carried out by means of measurements taken at the point of common coupling.
- (3) Should it be established that undue interference is in fact occurring, the consumer shall, at his/her own cost, install the necessary equipment to filter out the interference and prevent it reaching the supply mains.

NOTE: Sections 51, 52 & 53 below could be removed and published in a Technical Standard as these sections relate to technical matters

51. Supplies to motors –

Unless otherwise approved by the **Service Provider** or any duly authorised official of the **Service Provider** the rating of motors shall be limited as follows:

- (1) Limited size for low voltage motors –

The rating of a low voltage single-phase motor shall be limited to 2kW and/or the starting current shall not exceed 70A. All motors exceeding these limits shall be wound for three phases at low voltage or such higher voltage as may be required.

- (2) Maximum starting and accelerating currents of three-phase alternating current motors.-

The starting current of three-phase low voltage motors permitted shall be related to the capacity of the consumer's service connection, as follows:

Insulated service cable, size in mm ² , copper equivalent mm ²	Maximum permissible starting current A	Maximum motor rating in kW		
		Direct on line (6x full-load current)	Star/Delta (2,5 x full-load current)	Other means (1,5 x full-load current)
		kW	kW	kW
16	72	6	13,5	23
25	95	7,5	18	30
35	115	9	22	36,5
50	135	10	25	45
70	165	13	31	55
95	200	16	38	67

120	230	18	46	77
150	260	20	52	87

- (3) Consumers supplied at medium voltage –

In an installation supplied at medium voltage the starting current of a low voltage motor shall be limited to 1,5 times the rated full-load current of the transformer supplying such a motor. The starting arrangement for medium voltage motors shall be subject to the approval of the **Service Provider**.

52. Power factor -

- (1) If required by the **Service Provider**, the power factor of any load shall be maintained within the limits 0,85 lagging and 0,9 leading.
- (2) Where, for the purpose of complying with sub-section (1), it is necessary to install power factor corrective devices, such corrective devices shall be connected to the individual appliance terminals unless the correction of the power factor is automatically controlled.
- (3) The consumer shall, at his/her own cost, install such corrective devices.

- 53. Protection -** Electrical protective devices for motors shall be of such a design as effectively to prevent sustained overcurrent and single phasing, where applicable.

CHAPTER 6
MEASUREMENT OF ELECTRICITY

54. Metering –

- (1) The **Service Provider** shall, at the consumer's cost in the form of a direct charge or prescribed fee, provide, install and maintain appropriately rated metering equipment at the point of metering for measuring the electricity supplied.
- (2) Except in the case of prepayment meters, the electricity used by a consumer during any metering period shall be ascertained by the reading of the appropriate meter or meters supplied and installed by the **Service Provider** and read at the end of such period except where the metering equipment is found to be defective, or the **Service Provider** invokes the provisions of section 58(2) of this by-law, in which case the consumption for the period shall be estimated.
- (3) Where the electricity used by a consumer is charged at different tariff rates, the consumption shall be metered separately for each rate.
- (4) The **Service Provider** reserves the right to meter the supply to blocks of shops and flats, tenement-houses and similar buildings for the buildings as a whole, or for individual units, or for groups of units.
- (5) No alterations, repairs or additions or electrical connections of any description shall be made on the supply side of the point of metering

unless specifically approved in writing by the **Service Provider** or any duly authorised official of the **Service Provider**.

55. Accuracy of metering -

- (1) A meter shall be conclusively presumed to be registering accurately if its error, when tested in the manner prescribed in sub-section (5) hereof, is found to be within the limits of error as provided for in the applicable standard specifications.
- (2) The **Service Provider** shall have the right to test its metering equipment. If it is established by test or otherwise that such metering equipment is defective, the **Service Provider** shall -
 - (i) in the case of a credit meter, adjust the account rendered;
 - (ii) in the case of prepayment meters, (a) render an account where the meter has been under-registering, or (b) issue a free token where the meter has been over-registering;

in accordance with the provisions of sub-section (6).
- (3) The consumer shall be entitled to have the metering equipment tested by the **Service Provider** on payment of the prescribed fee. If the metering equipment is found not to comply with the system accuracy requirements as provided for in the applicable standard specifications, an adjustment in accordance with the provisions of sub-sections (2) and (6) shall be made and the aforesaid fee shall be refunded.
- (4) In case of a dispute, the consumer shall have the right at his own cost to have the metering equipment under dispute tested by an approved independent testing authority, and the result of such test shall be final and binding on both parties.
- (5) Meters shall be tested in the manner as provided for in the applicable standard specifications.
- (6) When an adjustment is made to the electricity consumption registered on a meter in terms of sub-section (2) or (3), such adjustment shall either be based on the percentage error of the meter as determined by the test referred to in sub-section (5) or upon a calculation by the **Service Provider** from consumption data in its possession. Where applicable, due allowance shall be made, where possible, for seasonal or other variations which may affect the consumption of electricity.

Note: Should the adjustment period of 6 months in Sub-section (7) below be increased to 12 months/3years???

- (7) When an adjustment is made as contemplated in sub-section (6), the adjustment may not exceed a period of six months preceding the date on which the metering equipment was found to be inaccurate. The application of this section does not bar a consumer from claiming back overpayment for any longer period where the consumer is able to prove the claim in the normal legal process.

- (8) Where the actual load of a consumer differs from the initial estimated load provided for under section 8(1) to the extent that the **Service Provider** deems it necessary to alter or replace its metering equipment to match the load, the costs of such alteration or replacement shall be borne by the consumer.
- (9) (a) Prior to the **Service Provider** making any upward adjustment to an account in terms of sub-section (6), the **Service Provider** shall -
- (i) notify the consumer in writing of the monetary value of the adjustment to be made and the reasons therefore;
 - (ii) in such notification provide sufficient particulars to enable the consumer to submit representations thereon, and
 - (iii) call upon the consumer in such notice to provide it with reasons in writing, if any, within 21 days or such longer period as the **Service Provider** may permit why his/her account should not be adjusted as notified.
- (b) Should the consumer fail to make any representations during the period referred to in sub-section 9(a)(iii) the **Service Provider** shall be entitled to adjust the account as notified in sub-section 9(a)(i).
- (c) The **Service Provider** shall consider any reasons provided by the consumer in terms of sub-section (9)(a) and shall, if satisfied that a case has been made out therefor, adjust the account appropriately.
- (d) If a duly authorized official of the **Service Provider** decides after having considered the representation made by the consumer that such representations do not establish a case warranting an amendment to the monetary value established in terms of sub-section (6), the **Service Provider** shall be entitled to adjust the account as notified in terms of sub-section 9(a)(i), subject to the consumer's right to appeal the decision of the official in terms of section 62 of the Municipal Systems Act, 2000.

56. Reading of credit meters -

- (1) Unless otherwise prescribed, credit meters shall normally be read at intervals of one month and the fixed or minimum charges due in terms of the tariff shall be assessed accordingly. The **Service Provider** shall not be obliged to effect any adjustments to such charges.
- (2) If for any reason the credit meter cannot be read, the **Service Provider** may render an estimated account. The electrical energy consumed shall be adjusted in a subsequent account in accordance with the electrical energy actually consumed.
- (3) When a consumer vacates a property and a final reading of the meter is not possible, an estimation of the consumption may be made and the final account rendered accordingly.

- (4) If a special reading of the meter is desired by a consumer, this may be obtained upon payment of the prescribed fee.
- (5) If any calculating, reading or metering error is discovered in respect of any account rendered to a consumer, the error shall be corrected in subsequent accounts. Any such correction shall only apply in respect of accounts for a period of 6 months preceding the date on which the error in the accounts was discovered, and shall be based on the actual tariffs applicable during the period. The application of this section does not prevent a consumer from claiming back overpayment for any longer period where the consumer is able to prove the claim in the normal legal process.

57. Prepayment metering -

- (1) No refund of the amount tendered for the purchase of electricity credit shall be given at the point of sale after initiation of the process by which the prepayment meter token is produced.
- (2) Copies of previously issued tokens for the transfer of credit to the prepayment meter may be issued at the request of the consumer.
- (3) When a consumer vacates any premises where a prepayment meter is installed, no refund for the credit remaining in the meter shall be made to the consumer by the **Service Provider**.
- (4) The **Service Provider** shall not be liable for the reinstatement of credit in a prepayment meter lost due to tampering with, or the incorrect use or the abuse of, prepayment meters and/or tokens.
- (5) Where a consumer is indebted to the **Service Provider** for electricity consumed or to the **Service Authority** for any other service supplied by the **Service Authority** (including rates) or for any charges previously raised against him/her in connection with any service rendered, the **Service Provider** may deduct a percentage from the amount tendered to offset the amount owing to the **Service Authority and/or the Service Provider**, as set out in the section 5 agreement for the supply of electricity.
- (6) The **Service Provider** may, at its discretion, appoint vendors for the sale of credit for prepayment meters and shall not guarantee the continued operation of any vendor.

CHAPTER 7
ELECTRICAL CONTRACTORS

58. In addition to the requirements of the Regulations the following requirements shall apply:

- (1) Where an application for a new or increased supply of electricity has been made to the **Service Provider**, any duly authorised official of the **Service Provider** may at his/her discretion accept notification of the completion of any part of an electrical installation, the circuit arrangements of which permit the electrical installation to be divided up into well-defined separate portions, and such part of the electrical installation may, at the discretion of any duly authorised official of the

Service Provider, be inspected, tested and connected to the supply mains as though it were a complete installation.

- (2) The examination, test and inspection that may be carried out at the discretion of the **Service Provider** or any duly authorised official of the **Service Provider** in no way relieves the electrical contractor/accredited person or the user or lessor, as the case may be, from his responsibility for any defect in the installation. Such examination, test and inspection shall not be taken under any circumstances (even where the electrical installation has been connected to the supply mains) as indicating or guaranteeing in any way that the electrical installation has been carried out efficiently with the most suitable materials for the purpose or that it is in accordance with this by-law or the safety standard, and **neither the Service Authority nor the Service Provider** shall be held responsible for any defect or fault in such electrical installation.

59. **Neither the Service Authority nor the Service Provider** shall be held responsible for the work done by the electrical contractor/accredited person on a consumer's premises and shall not in any way be responsible for any loss or damage which may be occasioned by fire or by any accident arising from the state of the wiring on the premises.

CHAPTER 8 COST OF WORK

60. The **Service Provider** may repair and make good any damage done in contravention of this by-law or resulting from a contravention of this by-law. The cost of any such work carried out by the **Service Provider** which was necessary due to the contravention of this by-law, shall be to the account of the person who acted in contravention of this by-law.

CHAPTER 9 PENALTIES

61. (1) Any person who contravenes any of the provisions of sections 5, 7, 13, 14, 20, 25, 26, 27, 29 and 30 of this by-law shall be guilty of an offence.
- (2) Any person who continues to commit an offence after notice has been served on him/her to cease committing such offence or after he/she has been convicted of such offence shall be guilty of a continuing offence.
- (3) Any person convicted of an offence under this by-law for which no penalty is expressly provided shall be liable to a fine not exceeding ten thousand rands or imprisonment for a period not exceed six months or to such imprisonment without the option of a fine or to both such fine and such imprisonment and, in the case of a continuing offence, to an additional fine not exceeding two hundred rands or additional imprisonment for a period not exceeding ten days or to such additional imprisonment without the option of a fine or to both such additional fine and imprisonment for each day on which such offence is continued.

- (4) Every person committing a breach of the provisions of this by-law shall be liable to recompense the **Service Authority and/or the Service Provider** for any loss or damage suffered or sustained by it in consequence of such breach.

CHAPTER 10
REPEAL OF BY-LAWS

62. **The <Municipality's name> Electricity Supply By-law promulgated under Provincial Notice No. <xxxx> on <date> is hereby repealed.**

SCHEDULE 1

“applicable standard specification” means

SANS 1019 Standard voltages, currents and insulation levels for electricity supply
SANS 1607 Electromechanical watt-hour meters,
SANS 1524 Parts 0,1 & 2 - Electricity dispensing systems,
SANS IEC 60211 Maximum demand indicators, Class 1.0,
SANS IEC 60521 Alternating current electromechanical watt-hour meter (Classes 0.5, 1 & 2),
SANS 10142-1 Code of practice for the wiring of premises;
NRS 047 Electricity Supply - Quality of Service;
NRS 048 Electricity Supply - Quality of Supply, and
NRS 057 Electricity Metering: Minimum Requirements