



## CONNECTION OF EMBEDDED GENERATION TO A MUNICIPAL DISTRIBUTION SYSTEM: ELECTRICITY SUPPLY BY-LAW

### INTRODUCTION

The purpose of the by-law is to effectively regulate the connection of embedded generation systems to the municipal distribution system.

### DEFINITIONS

For purposes of this by-law, the following definitions shall apply (and cognate expressions shall have similar meanings) —

embedded generation systems	electrical power generation units connected directly to the distribution system or connected to the distribution system on the customer side of the meter
ERA	Electricity Regulation Act, No 4 of 2006
municipality	a municipality that has executive authority to perform electrical reticulation services in its area of jurisdiction
NERSA	the National Energy Regulator of South Africa
reticulation	The trading or distribution of electricity and includes services associated therewith
SSEG	Small Scale Embedded Generation - power generation of less than 1000kVA (1MVA)

#### ***Provision of electricity services***

1. *Subject to subsection 2 below, only the Municipality may supply or contract for the supply of bulk electricity within its jurisdictional area.*
2. *The Municipality may permit the bulk supply or retail wheeling of electricity through its electrical grid by another electricity supplier which is licensed to supply electricity in terms of the Electricity Regulation Act.*
3. *The Municipality may permit the connection of an embedded generation system to its electrical grid in accordance with the requirements of this by-law and subject to:*
  - 3.1 *Compliance with the relevant requirements of the Municipality pertaining to the generation of electricity and the safety thereof contained in any guideline or policy issued by the Municipality in respect thereof.*
- 4 *Registration with the Municipality of all fixed electrical installations where electricity is generated and compliance with the Municipality's safety and quality requirements contained in any guideline or policy issued by the Municipality in respect thereof.*

All correspondence must be addressed to the City Manager

## Approval for Connection

### *Connection of electrical generation equipment*

1. *No person shall directly or indirectly connect, attempt to connect or cause or permit to be connected any electrical installation or part thereof to the Municipality's supply mains or service connection except with written permission of the City Manager or Deputy City Manager Electrical and Energy Services Department.*
2. *No alternate electrical generation equipment provided by a customer for his own operational requirements or for the generation of electricity may be connected to any installations without the prior written consent of the Municipality.*
3. *Application for such consent in terms of subsections (1) and (2) above must be made in writing and must include a full specification of the electrical generation equipment and a wiring diagram, as may be further detailed in any guideline or policy issued by the Municipality in respect thereof.*
4. *The electrical generation equipment must be so designed and installed that it is impossible for the Municipality's supply mains to be energised by means of a back feed from such electrical generation equipment when the Municipality's supply has been de-energised.*
5. *The customer shall be responsible for providing and installing all such protective equipment and for obtaining a certificate of compliance issued in terms of the Regulations made in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993). NRS 10142-1, NRS 10142-2*
6. *The Municipality shall not be held responsible for any work done by the electrical contractor/registered person on a customer'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 or the connection of the electrical generation equipment.*
7. **Where** *the customer's electrical generation equipment is permitted to be electrically coupled to, and run in parallel with the Municipality's supply mains, the customer shall be responsible for providing, installing and maintaining all the necessary synchronising and protective equipment, to the satisfaction of the DCM Electricity and Energy Services*
8. *Before making any alteration or addition to any electrical generation equipment installed within the area of the supply that requires an increase in electricity supply capacity, or an alteration to the service, the customer shall give notice of his intentions in accordance with the Regulations made in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).*
9. *Any electrical generation equipment 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 customer at his own expense and in accordance with this by-law and the Regulations made in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).*

### *Wheeling of electricity*

1. *No person may generate electricity by way of a fixed electrical installation and feed into the municipal electricity distribution network unless an agreement has been concluded with the Municipality, and such agreement together with the provisions of this by-law, as well as any other legislation governing the licensing of generators, shall govern such generation of electricity.*

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### **Resale of Electricity**

1. *Unless authorised by the DCM Electricity and Energy Services], no person may sell or supply electricity supplied to his or her premises or generated by him or her under an agreement with the Municipality, to any other person or persons for use on any other premises or permit or allow such resale or supply to take place.*
2. *If electricity is resold for use on the same premises, the provisions of the Electricity Regulation Act, No 4 of 2006 shall apply, as specified in Schedule 2 to the Electricity Regulation Act, No 4 of 2006.*
3. *If electricity is resold for use upon the same premises, the electricity resold shall be measured by a sub meter 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.*
4. *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.*
5. *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.*

### **Standby Supply**

1. *Standby supply of electricity for any premises having a separate source of electricity supply may only be supplied with the written consent of the Municipality.*
2. *Upon interruption of the electricity supply the Municipality may supply standby electricity in any manner as necessary.*

### **Metering**

1. *The Municipality shall, at the customer's cost in the form of a direct charge or prescribed tariff, provide, install and maintain appropriately rated metering equipment at the point of metering for measuring the electricity supplied.*

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## **Norms, standards and guidelines**

1. *The Municipality may from time to time issue Technical Standards detailing the requirements of the Municipality regarding matters not specifically covered in this by-law but which are necessary for the safe, efficient operation and management of the electrical generation equipment.*
2. *The Municipality may determine and publish norms, standards and guidelines which prescribe appropriate measures to save energy or to reduce the use of electricity and such norms standards and guidelines must be kept in the form of an operational manual.*
3. *The norms, standards and guidelines contemplated in subsection (1) may differentiate between communities, geographical areas and different kinds of premises.*

## **Unauthorised connections**

1. *No person other than a person whom the Municipality specifically authorizes in writing to do so may directly or indirectly connect, attempt to connect or cause or permit the connection of a new electrical installation or part of a new electrical installation to the supply mains or service connection.*
2. *In the case where an electrical installation has been illegally connected on a customer's premises in contravention of this by-law, any policy or guideline issued by the Municipality and/or the Regulations, the Municipality may disconnect the connection of the electrical installation to the municipal distribution network.*
3. *The Municipality must give a person referred to in subsection (3) and any person residing in the premises notice of —*
  - a) *the intention to disconnect the electrical installation of such person;*
  - b) *a reasonable opportunity for such person to make representations in respect of the intended disconnection; and*
  - c) *all the relevant information including reasons for the intended disconnection and the notice period on or after which the disconnection will be effected.*
4. *For circumstances other than listed in sub-section (5), where any of the provisions of this by-law or the Regulations are being contravened, the Municipality shall give the person concerned fourteen days' notice to remedy his or her default prior to disconnection.*
5. *The Municipality may disconnect the supply of electricity to any premises or the connection of any electrical installation without notice under the following circumstances;*
  - a) *where there is a case of grave risk to any person or property; or*
  - b) *for reasons of community safety or the safety of emergency personnel.*
6. *After the disconnection contemplated in subsection (1), the fee as prescribed by the Municipality for such disconnection or the reconnection of the service shall be paid by the person concerned.*
7. *In the case where an installation has been illegally reconnected on a customer's premises after having been previously legally disconnected by the Municipality, or in the case where the Municipality'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 without prior notice.*

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