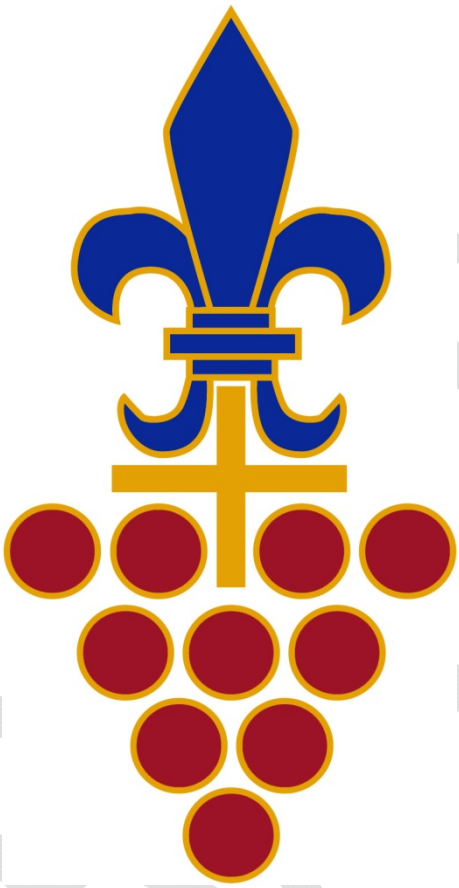
STELLENBOSCH MUNICIPALITY



SELF GENERATION OF ELECTRICITY

AND

FEEDBACK INTO THE STELLENBOSCH MUNICIPAL GRID

POLICY

2015/2016

Table of Content

1. Preamble

The purpose of this document is to regulate the business regarding the new trend in the electricity reticulation business where traditional users/consumers of electricity are also allowed to generate electricity for own use and to feed back surplus generation into the Municipal grid.

This policy will serve as an interim guideline until such time as National Standards are finalised and NERSA has provided a clear policy in terms of Electricity Regulation Act [Act 4 of 2006].

2. Different types of Self Generators

2.1 Independent Power Producers IPP's
These are entities that specialise in the generation of electricity only. They are larger generators of 5 MVA and above and supply to the Eskom grid at an agreed tariff, stipulated through a Purchase Power Agreement.

2.2 Embedded power generators
These are users/consumers of Electricity that also generate electricity. The following scenarios can exist:-

2.2.1 Not connected to the Municipal grid, generate and use own electricity
2.2.2 Connected to the grid, also generate electricity for own use. Do not feed back into the grid.
2.2.3 Connected to the grid, also generate electricity for own use and feeds back surplus generation into the grid.

This policy covers the Embedded generators described in 2.2.2 and 2.2.3.

3. Legislation, Standards etc.

The Embedded generators shall adhere to all requirements from the Department of Energy (DOE) and the National Electricity Regulator of South Africa (NERSA) and Stellenbosch Municipality and shall comply to the following Legislation and Standards:-

- Electricity Regulation Act (Act 4 of 2006);
- Occupational Health and Safety Act (Act 85 of 1993);
- Distribution Grid Code (all parts);
- The South African Grid Code (all parts);
- Stellenbosch Municipality Electricity Services Supply By-Law;
- Eskom DST 34-1765 Distribution standards for the interconnection of embedded generation;

- NRS 097-2-1 Grid interconnection of embedded generation Part 2: Small scale embedded generation, Section 1: Utility interface;
- NRS 097-2 Grid interconnection of embedded generation Part 2: Small scale embedded generation, Section 2 to 4 (once published);
- NRS 048 – Quality of supply Part 2: Voltage characteristics, compatibility levels, limits and assessment methods and Part 4: Application guidelines for utilities, Part 7, Application practices for end-customers (once published);
- SANS 10142-1-The wiring of premises:
- SANS 474/NRS 057 Code of practice for electricity metering.

4. Important Principles

- Stellenbosch Municipality will be responsible for the infrastructure up to the point of supply including the meter. After this point the responsibility will lie with the applicant.

  The point of supply is normally, but not always, the metering point.

- The Stellenbosch Municipality will not be responsible for any cost regarding the installation. Should the Stellenbosch Municipality be required to do any work on its network a quotation will be supplied and the work will only commence after full payment of the required amount has been received.

- Most important are the safety of the Stellenbosch Municipal staff, the public and the users of the generator and special care will have to be taken to ensure that installations comply with the required safety standards.

  The applicant will be responsible for the safety of the installation.

- Further implications include the impact of the physical presence of the generator, neighbours and the quality of electricity supply in the vicinity of the generation.

  The applicant will be responsible for these implications.

- Stellenbosch Municipality reserves the right to retrospectively require generators who have been given permission to connect to the grid to comply with new or revised national standards when adopted.

- This document only deals with the requirements for the electrical connection. Requirements for other departments of Stellenbosch Municipality regarding the erection and or installation of the proposed generators, must be cleared with the relevant department.

5. Application procedures and conditions

The procedures will be as follows:-

- The prospective generator of electricity will have to submit an application to the Stellenbosch Municipality.
- If so required by NERSA The applicant will have to obtain a license to generate electricity from NERSA and submit it with the application.
- Pay any fees as required by the Stellenbosch Municipality.
- Installation can follow after final approval.
- A Certificate of Compliance (C.O.C) has to be obtained after completion.

Information required:-

- Completed application form.
- Embedded generator commissioning information.
- Type verification tests for embedded generator and protection.
- Copy of Certificate of Compliance.
- Declaration by Professional Technologist/Engineer registered with ECSA.
- The customer name and account number.
- The technology of the generator.
- The capacity of the installation.
- The location, both on the network and GPS co-ordinates.
- The capacity of energy storage, if installed.

6. Measurement and billing of reverse power flow

- Embedded generators can be allowed to feedback surplus generation back into the Stellenbosch Municipal grid if so approved by the Stellenbosch Municipality. However the Stellenbosch Municipality is not obliged to pay for this power until such time as the required guidelines, regulations etc. from NERSA are available. Tariffs will be according to NERSA guidelines and will be approved by NERSA.
- Metering will be done by an approved bi-directional meter, which meters both the forward and reverse flow of electricity and gives separate readings for both.
- Net-metering where the meter automatically subtract the reverse flow from the forward flow, as well as Electromechanical meters turning backwards with reverse power flow will not be allowed.