



Registration of Small-Scale Embedded Generation

The Municipality supports Small-Scale Embedded Generation (SSEG) and would like to thank you for contributing to the growth of green energy by installing a Photovoltaic (PV) system. All permanent SSEG systems must however be registered and authorised by the Municipality as per the Electricity by-law.

This includes the following system types:

Grid Tied Solar PV Systems

Solar PV systems that connect to and run in parallel with the grid and don't include any form of energy storage. These systems need the grid supply to synchronize and supply power simultaneously with the utility network. When installed on the customer side of the utility meter, they are mainly installed for self-consumption to reduce the customers' electricity bill. They cannot supply back-up power during a power failure.

Off Grid or Stand-Alone solar PV systems

Off grid solar PV systems, are systems that supply power from both solar and/or batteries through an off-grid inverter that has no electrical connection to the utility grid. These systems can be supported with a back-up generator to charge batteries and/or supply loads when there is insufficient solar PV and/or battery energy available.

NOTE: Inverters labelled as Off Grid inverters shall not be used for grid connected solar PV systems.

Hybrid Grid Tied Solar PV systems

Grid tied/connected hybrid systems are those that combine two or more energy sources like solar PV, batteries, diesel generator or wind, which are connected to and runs in parallel with the utility network. The most common and most relevant hybrid system for Municipal Distributors is a solar PV - battery hybrid. These systems mainly run from the solar PV and battery power, and only use the utility to supplement the supply when there is insufficient from the PV or batteries. These systems can also operate during a power outage – hence their increasing popularity

Back-up or standby (UPS) systems need not to be Registered

Back-up or standby uninterruptable power supply (UPS) systems stores energy in batteries through a charger and then only supplies power to the loads from these charged batteries via an inverter during a power outage. Fuel generators can also be used as back-up or stand by power supply. These systems require a suitable change over switch to select power supply between the utility and the back-up power supply, as the two supplies shall never be supplied simultaneously.

Grace period for registration

As customers may be unaware of the requirement to register and obtain authorisation for their SSEG, the Municipality is allowing a grace period for existing systems to be registered and authorised. To benefit from this grace period, property owners must apply for authorisation of their SSEG system with the Municipality by **30 June 2023**. After the grace period, the Municipality will be implementing a service fee (equal to the Tampering Fee as per Sundry Tariffs) for the disconnection of unauthorised SSEG connections. The supply of electricity to the property in question may be disconnected and only reconnected once the Municipality is satisfied that the SSEG system is either disconnected, decommissioned, or authorised and that the service fee has been paid.

Customers registering their system during the grace period may continue to operate the system. This assumes that the system is compliant with the municipal requirements. If during the registration and authorisation process, your system is found to be non-compliant, your system will need to be disconnected until such time as it is deemed compliant and has received written authorisation from the Municipality.

Systems that have registered for authorisation during the grace period have until **31 December 2023** to receive written authorisation from the Municipality. If these systems are not authorised by this time, they may be liable for the service fee for the removal of unauthorised SSEG supply.

The Municipality is legally required to ensure that the electricity distributed to all its consumers complies with set quality standards and that its employees are protected from inadvertent electrical shocks when working on the grid and that costs associated with maintaining the grid infrastructure maintenance are recovered from its consumers.

The Municipality has accordingly developed technical specifications for grid-connected generation equipment and associated metering configurations and tariffs. National wiring codes (ensuring public safety) have also been established. To enable the Municipality to ensure compliance with the abovementioned requirements, all permanent grid-tied electricity generators in the area supplied directly by the Municipality must be authorised in writing.

Connecting generators to the grid without obtaining the necessary authorisation can result in systems endangering the safety of municipal staff and members of the public, interfere with the quality of supply and result in the Municipality not fully recovering costs that are due from the consumer. Unauthorised generators which are grid-tied are therefore considered to be a form of tampering and will be dealt with accordingly.

The Municipality looks forward to working with you to ensure that your PV system is safe and legal.

The application form to start the SSEG registration process, and documentation clarifying the requirements for SSEG, are available from the municipality's website at www.swartland.org.za or from the Electrical Engineering Services' offices at SSEG@swartland.org.za (or phone at 022 487 9400).

Yours sincerely,

Thys Möller (Director: Electrical Engineering Services)