



## **Small Scale Embedded Generation (SSEGs) Frequently Asked Questions**

### **Why do I have to register my solar system with the municipality?**

- To ensure compliance with legal and regulatory requirements.
- All solar systems that are connected and work in parallel with the grid need to be registered to ensure the safety of people, animals and electrical equipment.
- In addition, only NRS 097-2-1 certified and approved inverters are allowed to be connected to the grid, and the registration process makes it easy for the municipality to verify this.
- An authorised SSEG minimises the risks associated with injury and loss of life.

### **Is there a fee associated with the registration process?**

- No, the municipality does not charge any fee for the registration process.

### **What happens if I have already installed my solar system before getting approval from the municipality?**

- Standard practice is to first apply and obtain written approval from the municipality before a customer can begin with their installation.
- However, at this stage we allow customers to still register their SSEGs with the municipality even after installation.
- As municipal bylaws change, there might be penalties imposed on customers who install before getting approval from the municipality.

### **How do I register?**

- Customers can use the online web-based platform to register.
- They first have to register as an applicant to create login credentials, select George municipality and then begin registration.
- We recommend that the customer let their installer fill in the application form as it contains some technical questions.
- The link is: <https://apply.sseg.org.za/>

### **What documentation is required when applying?**

- A customer's ID copy,
- a preliminary schematic diagram and
- the inverter's datasheet/model number.

### **What happens after registration?**

- The municipality reviews the application, and if all is in order, gives approval for the customer to proceed with their installation.
- If there are some issues with the application, the applicant will be informed and asked to rectify those and resubmit their application.

### **What documentation is required after registration?**

- A copy of the certificate of compliance (CoC) signed by a registered Installation Electrician,
- a signed as built diagram,
- the Supplemental Contract for Embedded Generation (Annexure A) signed by the property owner and
- a signed commissioning/declaration report.

### **Who can sign off the commissioning/declaration report?**

- A Professional Engineer (Pr. Eng) or Technologist (Pr. Tech) who is registered with the Engineering Council of South Africa, can sign off all SSEG system sizes.
- For residential installations (less than 15 kVA), a qualified Installation Electrician/Master Electrician who is registered as an Electrical Contractor with the Department of Employment and Labour, can sign off.
- For systems greater than 15 kVA three phase but less than 85 kVA, a Pr Technician or a Pr Certificated Engineer can sign off.
- SSEG systems greater than 85 kVA (125 Amps three phase) can only be signed off by a Pr. Eng or a Pr. Tech.

### **Do Off grid solar systems have to be registered?**

- Yes, the customers have to inform the municipality via email of their intention to install an off grid solar system.
- This is done so the off-grid systems don't get confused with grid tied systems.
- There are no requirements from the Municipality for this registration.

### **Is an inverter and a battery without solar panels considered SSEG and require registration?**

- Yes, as long as there is a wiring connection between the inverter and the customer's main distribution board that is supplied by the municipal grid, then the system is considered grid tied and has to be registered with the municipality.
- Only mobile inverter and battery as well as UPS systems that charge from the plug sockets are not SSEGs as they are treated as electrical appliances.

### **What is the turnaround time for approving SSEG systems?**

- The approval process takes an average of five (5) working days, provided all required documentation has been provided. This may vary due to the quantity of applications to be processed.

### **What is the minimum connection size (in Amps) that a customer must have in order for their solar system to be approved?**

- As of the 1<sup>st</sup> of July 2023, customers who wish to install solar systems must have a minimum connection size of 40 Amps. – and should be on a related tariff.

### **Can I export any excess electricity to the municipal grid, and will I get compensated for it?**

- Yes, customers can export their excess power to the municipal grid.
- This is however, limited to either 25% or 75% of their Notified Maximum Demand (NMD).
- Residential customers with connection sizes of 60 Amps or less (either single phase or three phase) are connected on a shared low voltage feeder and are therefore only allowed to export 25% of their NMD.
- Customers on a dedicated connection may export up to 75% of their NMD.
- The NMD is the total capacity of the customer.
- If you are a single phase 60A customer, your NMD is calculated as follows:  $60A * 230V = 13,8$  kVA.
- Furthermore, the ability to export excess electricity requires the customer to have a four-quadrant bidirectional meter installed.
- The meter can be purchased from the municipality at a cost of approximately R10 000 inclusive of VAT.
- This includes the meter, its test blocks, a communication modem and programming and installation.

### **Do I need to change my tariff if I intend to export excess power?**

- Yes, customers who wish to get credited for exporting excess power are required to move to a time-of-use tariff.
- This is a tariff with varying energy charges at the different time of use periods and seasons.
- The Municipality is not allowed to change tariffs on behalf of the customer without a formal request / application.

**Do you need to install a bidirectional meter if you do not intend on exporting to the municipal grid?**

- No, customers who do not want to export any excess power can keep their current prepaid or credit meters.
- This may change in the future but is currently still accepted.

**Is there a limit when charging the batteries from the municipal grid?**

- When charging the batteries from the grid, customers must limit their charge current to 25% of their notified maximum demand.
- For a 60 Amps customer, this is 15Amps (0,25\*60).
- This is because after load shedding, customers recharge the batteries while also supplying their household loads, which results in them drawing more power from the grid that they are expected to.
- The electrical network was not designed for these additional loads and may cause quality of supply issues.
- This increases the municipality's demand from Eskom, which increases the overall cost of supplying electricity to customers.

**Is the Municipality doing anything to ensure that all systems are registered?**

- The Municipality uses aerial photographs to identify properties with installations that are not registered. These properties will be visited to ensure compliance and correct tariffs.

*For more information about SSEGs in George, please contact Thabo Yiga from the Electrotechnical Services directorate, either by email: [tyiga@george.gov.za](mailto:tyiga@george.gov.za) or by calling 044 801 9222.*