



GOING SOLAR IN LANGE BERG MUNICIPALITY

Langeberg Municipality is encouraging the installation of private Small-Scale Embedded Generation (SSEG) systems, particularly Rooftop Photovoltaic (PV) systems.

Homes or businesses that have on site renewable energy generation will benefit from lower electricity costs and will be contributing to a more secure and sustainable future. Solar PV technology converts energy from the sun to electricity, which can be used in buildings of all sizes. Investment in installing a PV system is posing a strong case due to it leading to reduced costs, especially when electricity tariffs increase.

What is a solar PV system?

Solar photovoltaic (PV) systems, or solar power systems, are renewable energy systems that convert sunlight into electricity. The electricity it generates can be stored in batteries, used directly, or fed back into the electricity grid. Solar PV works well for a wide range of residential, industrial, commercial and agricultural uses and is considered clean energy, as no fossil fuel is used in generating the electricity.

Connecting without approval is illegal and dangerous.

Illegally connected systems could compromise the safety of your family, municipal staff and the electricity grid. All new and existing PV Systems must be authorised by Langeberg Municipality. Poorly installed roof top PV systems and illegal grid connections are a safety concern for the following reasons:

- The household may be exposed to the risk of electrical fires and electric shock.
- The safety and the power quality of the electricity grid may be compromised by connections that use the wrong equipment or by adding unplanned generation capacity to a part of the network not designed to carry it.
- The safety of electricity staff working on the reticulation network could be compromised by the electricity feeding into the grid from illegally connected PV installations

Before approving the design and purchasing of a system, there are key points to follow:

Before installing a PV system, it makes economic sense to first become more electricity-efficient. By doing so, you will reduce the size and cost of the PV system you need. Consider installing an efficient water heater (solar water heater or heat pump), installing efficient lighting and switching to gas for cooking and heating.

For tips go to www.savingelectricity.org.za. Obtain authorisation from Langeberg Municipality. If you are planning to install a grid tied system, you need to **obtain written authorisation from Langeberg Municipality**. You will find all the necessary documentation at www.langeberg.gov.za/SolarPV

Do not proceed with installation until written authorisation has been granted. Stand alone systems must be registered with the Municipality, but are not required to go through the full authorisation process.

Backup generators must also be registered with the Municipality.

Obtain a structural assessment

Generally, roofs can withstand the weight and wind load of PV panels. However, it is advisable to obtain a structural assessment of the roof, to determine whether it can withstand these loads. Structural engineers can provide this service.

No need to submit building plans

There is no need to submit building plans to the Langeberg Municipality for PV systems - unless the panels protrude more than 600 mm above the highest point of the roof, or they are raised more than 1.5 m above any point on the roof, or if ground mounted, the panels in their installed position project more than 2,1 metres above the natural/finished ground level.

Buy the correct inverter

If you are planning to install a grid tied system, be sure to use an approved inverter. Langeberg Municipality uses the same guidelines as of the City of Cape Town. You can find the list of approved inverters at www.capetown.gov.za/SolarPV under 'Reference Documents'.

Check PV panel standards

At the very least, ensure that the PV panels you will use have a Certificate of Compliance for the IEC standard: EC 61215 – Crystalline silicon terrestrial PV modules. IEC standards are the international version of the SABS, and are a good indication of panel quality. Ask your service provider for proof.

Store batteries safely

If you are installing batteries, make sure that they are stored in a properly racked, well ventilated, dry room and in accordance with the Occupational Health and Safety (OHS) Act, Act 85 of 1993. While there are compulsory wiring standards for general electrical installations, there is no dedicated national standard for PV installations as of yet. This does not mean that you are not allowed to install a PV system, but without these quality reference points, you do need to ensure safe installations and the use of good, quality products that complies with our laws.

For quality installations, make use of an installer accredited by SAPVIA who can issue a Green Card for your installation. See www.pvgreencard.co.za

For more information about Rooftop Photovoltaic Systems please contact.

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