

Electrical Compliance Certificates for Alternative Energy Solutions

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02 December 2024

INTRODUCTION

Homeowners in South Africa are going off the grid and installing alternative and/or renewable energy systems into their homes, like solar panels. There is some confusion about Electrical Certificates of Compliance (ECC) and whether solar panel systems and alternative energy solutions should be included in the ECC.

ELECTRICAL COMPLIANCE CERTIFICATES IN GENERAL

The purpose of an ECC is to certify that the electrical installation in your home is safe according to minimum standards set in legislation. Every electrical installation must have a certificate of compliance. This means that every homeowner must have a valid ECC in respect of his/her home.

In terms of the Electrical Installation Regulations relating to ECC's published pursuant to the Occupational Health and Safety Act (the Act) an owner of a property must, upon change of ownership, have an ECC which is not older than two years. The legal question is whether an ECC is required in respect of a solar panel control circuit system and/or renewable energy systems.

LEGISLATION

In terms of the Act an electrical installation is defined as, "any machinery, in or on any premises, used for the transmission of electricity from a point of control to a point of consumption anywhere on the premises, including any article forming part of such an electrical installation irrespective of whether or not it is part of the electrical circuit, but excluding:

- any machinery of the supplier related to the supply of electricity on the premises;
- any machinery which transmits electrical energy in communication;
- control circuits, television or radio circuits;
- an electrical installation on a vehicle, vessel, train or aircraft; and
- control circuits of 50 V or less between different parts of machinery or system components, forming

a unit, that are separately installed and derived from an independent source or an isolating transformer."

Solar panels are not excluded from the above definition of an electrical installation. Therefore, it is argued that an ECC is required when a solar panel control circuit is used on the premises.

DEBATE

Solar systems and alternative and/or renewable energy systems are relatively new in South Africa and as such the regulations have not been updated to specifically provide for these. As such there is some debate as to what forms part of the electrical installation and what does not. The further question is whether stand-alone appliances are part of the electrical installation.

It is argued that equipment itself that is connected to the electrical installation and designed to operate as an alternative energy source is regarded as a fixed or stationary appliance. Thus, these do not form part of the ECC. However, wiring and switchgear used to connect the equipment to the electrical installation do form part of the ECC and as such an ECC must be issued in respect of the wiring and switchgear.

CONCLUSION

Consensus appears to be that a Solar Panel and/or Inverter is an appliance and not an electrical installation. An ECC must be issued for the electrical wiring thereof as the wiring falls within the description of a point of consumption.



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As a practical comparative example, in the case of a geyser, the geyser itself is an appliance which doesn't require a certificate the physical wiring thereof to the point of consumption in the property requires an ECC.