



## COMPLIANCE REPORT FOR LOW VOLTAGE SSEG'S OPERATING IN PARALLEL WITH THE ESKOM NETWORK. (EGI REPORT)

This document shall apply throughout Eskom Holdings Limited Distribution:

- All Low voltage SSEG Installations <1 MVA total capacity.
- Generation systems with self-consumption, including grid-tied, hybrid, and micro-grid configurations.
- SSEG Installations across all customer categories, including residential, commercial, and industrial consumers.
- Technical verification of inverter-based and non-inverter-based SSEG'S, including compliance with NRS protection, anti-islanding, power quality, labelling, isolation, and interface requirements.
- Confirmation of the competence and legal registration of responsible persons (DOEL Registered Persons and ECSA Professionals).

This report **does not** apply to:

- Utility-scale generators  $\geq 1$  MVA. For those the Utility Grid Access Unit (GAU) need to be approached.
- SSEG Installations connected to the utility at Medium Voltage.
- Independent Power Producers (IPPs) without self-consumption.
- Municipal network-connected generators.
- Off-grid systems.
- Switched Alternative Supplies, as defined in Section 2.3 of this document, are exempt from the required EGI sign-off due to their inherent isolation via a dedicated transfer/changeover switch.

**Note:** Bypass switches does not mean it is switched alternative supplies.

### Revision 1

Note 1. In terms of South African legislation, the user or lessor is responsible for the safety of the embedded generation facility.

Note 2. A valid Certificate of Compliance (CoC) must be issued for every SSEG installation by a Registered Person as defined in the EIR.

Note 3. Person signing off the EGI compliance report for Single and Three phase installations  $\leq 1\text{kV}$  a.c. and  $\leq 1.5\text{kV}$  d.c. must be a department of labour registered Installation Electrician or Master Electrician, ECSA Professional body registration are additional and at the discretion of the customer.

Note 4. Additional information is available on the Eskom website <https://www.eskom.co.za/distribution/small-scale-embedded-generators1/small-scale-embedded-generation-sseg-connection/> ([Small Scale Embedded Generation \(SSEG\) connection - Distribution](#)) to clarify the requirements for completing this report.

**Note 5. Inverter Selection and Compliance Verification**

For purposes of this report, compliance with NRS 097-2-1 may be demonstrated through one of two recognised pathways:

- **Municipal Verification Route:** Inverter models listed on the latest approved **City of Cape Town SSEG inverter list** are deemed compliant with NRS 097-2-1, as the City's approval process relies on accepted third-party type testing and technical verification.
- **Independent Certification Route:** Inverter models not appearing on the City of Cape Town list may still be accepted, provided a valid **NRS 097-2-1 type test certificate** issued by an **accredited third-party test laboratory** is submitted.

Eskom does not procure or approve inverter brands but requires demonstrable compliance with NRS 097-2-1. The responsibility for correct inverter selection and verification rests with the **installer and authorised person**.

Compliance Checklist for SSEG's operating in parallel with the utility network connected at Low Voltage ( $\leq 1\text{kV}$  a.c. and  $\leq 1.5\text{kV}$  d.c.). To be completed by registered person as per definition.

1) Customer Details

Customer Name	Surname	ID:
Eskom Account No.		Date of Contract

2) SSEG Site Details

1. Certificate of compliance (CoC) no. Issued under SANS 10142 -1			Date of Issue:
2. Supplementary COC no			Date of Issue
3. Name of building			
4. Site GPS coordinates	Latitude (dd mm ss) S	°	'
	Longitude (dd mm ss) E	°	'
5. Physical Address of installation			


3) Authorised persons details

<u>DOEL Registered Person</u>	
Full Name _____	DOEL registration Number _____
Surname _____	
Signature _____	Installation Electrician <input checked="" type="checkbox"/>
	Master Installation Electrician <input checked="" type="checkbox"/>
<u>ECSA Registered Person (for Low voltage – Optional).</u>	
Full Name <input style="width: 90%;" type="text"/>	Pr Eng. <input checked="" type="checkbox"/>
Surname <input style="width: 90%;" type="text"/>	Pr Tech Eng. <input checked="" type="checkbox"/>
ECSA registration Number <input style="width: 90%;" type="text"/>	Pr Cert Eng. <input checked="" type="checkbox"/>
Signature _____	Pr Techni. <input checked="" type="checkbox"/>

4) SSEG Details

Type of SSEG Installation (For schematic see Annex B)	
Type of System	Part of Doc to complete
PV Generation System	Part A & B
Battery Energy Storage System	Part A & B
Hybrid Inverter with BESS Only	✓ Part A & B
DC Coupled Hybrid inverter with BESS and PVGS	✓ Part A & B
AC Coupled Hybrid System: internal SDU, PVGS, BESS	✓ Part A & B
AC Coupled Hybrid System: external SDU, PVGS, BESS	✓ Part A, B & C
AC Coupled Hybrid System: external SDU, PVGS, BESS, EMG	✓ Part A, B & C
SSEG Installation Incorporating EMG.	✓ Part A & C

Part A: General Compliance

<b>(If any of these questions is a No the report may not be issued.)</b>			
Valid CoC or Supplementary CoC available. (To be attached to the report)	Y	CoC Number: All	
Detailed test report for SSEG installation E.g., Any of the industry used templates like SAPVIA PVGC as built test report, AREP Hybrid system test report, ECA SSEG test report etc (To be attached to the report)	Y	Comment: All	
Notice displayed at Main switch of the installation as per Sans 101042-1 Parag  7.12.2.1. 	Y	Comment: All	
The owner has been instructed in the safe operation and routine maintenance of the SSEG system, and that all relevant operating, maintenance, and safety manuals have been handed over to the owner.	Y	Comment: All	
As-Built Single Line Diagram (Schematic drawing) available and corresponding with SSEG installation? (To be attached to the report)	Y	Comment: All	
Anti-islanding protection installed, tested, and verified to confirm correct operation as per NRS 097-2-1	Y	Comment: All	
Reverse power flow limiting is part of the design and commissioned in accordance with utility export agreement.	Y	N/A	Comment: All
The required 4Q TOU metering has been installed by Eskom.	Y	N/A	Comment: All

Part B: Inverter Details

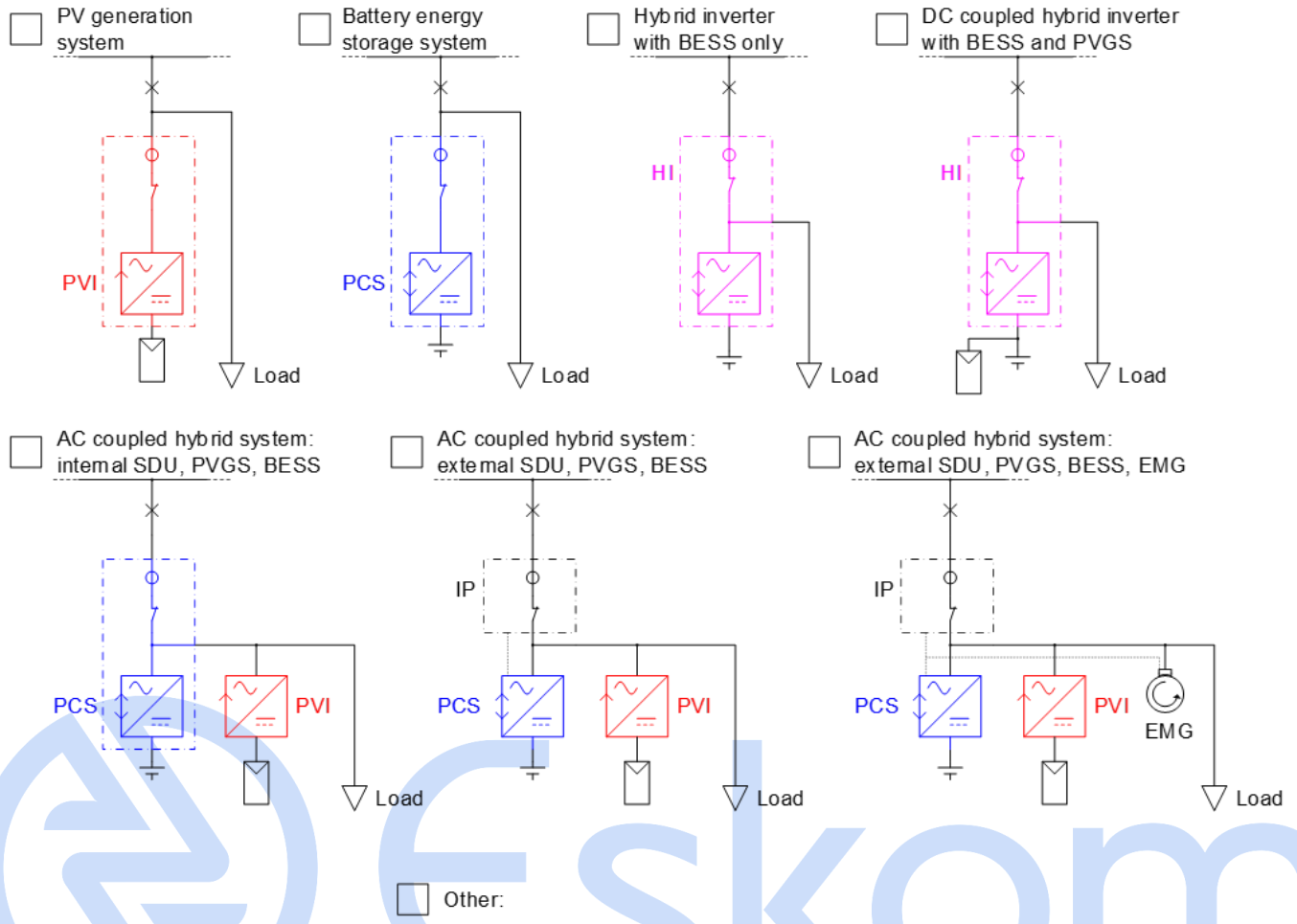
<ul style="list-style-type: none"> <li>The inverter installed as part of this SSEG must comply with the requirements of NRS 097-2-1. Compliance is demonstrated by one of the following methods ( tick as applicable).</li> <li><b>Note:</b> Where Option A is selected, submission of a separate type test certificate is not required, as verification has already been completed by the City of Cape Town. <b>Where Option B is selected, the type test certificate shall be attached to this report.</b></li> </ul>			
<b>Option A</b>	<input checked="" type="checkbox"/>	Utility-Verified Listing	
The inverter model is listed on the latest approved City of Cape Town (CoCT) SSEG Inverter list which constitutes verification of compliance with NRS 097-2-1 based on accepted third-party type testing and municipal verification processes.			
Inverter Make		Inverter Model	
CoCT List Revision date			
<b>Option B</b>	<input checked="" type="checkbox"/>	Independent Type Test Certification	
The inverter is not listed on the current CoCT approved list, however compliance with NRS 097-2-1 is demonstrated by a valid type test certificate issued by an accredited third-party test laboratory.			
Inverter Make		Inverter Model	
Test house (accredited):		Certificate reference number:	
Certificate attached:	<input checked="" type="checkbox"/>	No of inverters	
Inverter Serial No's		Total capacity of Inverters Kw	

Part C: Eskom interface requirements for Non-Inverter AC and coupled systems

(e.g., synchronous generator, induction generator, diesel genset, micro-hydro turbine, or certain wind machines which inherently produces grid-compatible AC power.)				
IEC 60255 compliant grid protection / interface protection relay installed, tested, and verified to confirm correct operation.	Y	N	N/A	Comment:
Anti-islanding protection installed, tested, and verified to confirm correct operation. (<2 seconds)	Y	N	N/A	Comment:
Reconnection Delay set and verified ( $\geq 60$ seconds)	Y	N	N/A	Comment:
Under voltage protection settings verified (Set as per NRS097-2-1 Table 3)	Y	N	N/A	Comment:
Over Voltage protection settings verified (Set as per NRS097-2-1 Table 3)	Y	N	N/A	Comment:
Over Frequency protection settings verified (Set as per NRS097-2-1 Table 4)	Y	N	N/A	Comment:
Under Frequency protection settings verified (Set as per NRS097-2-1 Table 4)	Y	N	N/A	Comment:
Reverse Power flow Relay installed and verified? <small>(Only applicable for Export limiting)</small>	Y	N	N/A	Comment:



### Annex A



Sketch other configuration in this space:

PVGS: Photovoltaic generation system  
 BESS: Battery energy storage system  
 PVI: Photovoltaic inverter  
 PCS: Power conversion system  
 HI: Hybrid inverter: grid parallel and off-grid mode  
 EMG: Electromechanical generator  
 SDU: Safety disconnect unit  
 IP: Interface panel including a SDU  
 Hybrid system: system comprising of a variety of energy conversion systems