



APPLICATION FOR THE CONNECTION OF SMALL SCALE EMBEDDED GENERATION

This application form is for the connection of any type of grid-tied small-scale embedded generation to the electrical installation of residential, commercial or industrial customers, connected to the electrical grid of City of Ekurhuleni.

All application Forms to be returned to: Mrs Anna Twala Boksburg Civic Centre, 4th floor, Cnr Trichardts & Commissioner Street Tel: 011 999 5599 Email: anna.twala@ekurhuleni.gov.za

PLEASE NOTE: FAILURE TO PROVIDE ALL RELEVANT INFORMATION AS REQUIRED BELOW MAY LEAD TO DELAYS IN THE APPLICATION PROCESS

SECTION A: Application Type

Please select the type of SSEG application and approval sought.

1. New Grid-tied SSEG Installation (Complete Sections B, C, D, E, G)
2. Changes to Existing Grid-tied SSEG Installation (Complete Sections B, C, D, E, G)
3. Transfer of Ownership (Complete Sections B, G)
4. Decommissioning / Moving SSEG Off-grid (Complete Sections B, F, G)

SECTION B: Applicant and Property Information

B1. Municipal Account Holder Details*

Name:			
Municipal Account Number:		Existing Tariff Category:	
Telephone Number:	Land:	Mobile:	
Email Address:			

* - if the applicant does not yet have an electricity connection, this should be stated above and an application for a new connection will need to be submitted together with this application form.

B2. Property Details

Property Erf number:	
Property use (tick):	Residential <input type="checkbox"/> Other (Business, Commercial, Industrial) <input type="checkbox"/>
Physical address:	
Stand number (as per municipal account):	
Township / Suburb / Farm:	Post code:

Site GPS coordinates:	Latitude (dd mm ss)	S	2		°			'					''
	Longitude (dd mm ss)	E	2	8	°			'					''

SECTION C: Installer Information

Installer information to be provided as part of the completed **Annexure 4: Regulation 8(1) of the Electrical Installation Regulations (EIR), 2009 Notice of Commencement of Installation Work**. The completed Annexure 4 should be attached to this application form.

The Annexure 4 form can be collected from the City of Ekurhuleni, or downloaded from <https://www.ekurhuleni.gov.za/>

Anticipated Construction Schedule:

Start Date:		Commissioning Date:	
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SECTION D: Embedded Generator Technical Information

D1. NERSA license¹

Does the system require a license from NERSA? (tick)	No	
	Yes	

D2. SSEG system overview

Project name:		Nominal AC capacity (kVA):	
Generation technology*(tick):		Solar PV <input type="checkbox"/>	Wind <input type="checkbox"/> Diesel generator <input type="checkbox"/>
Other generation type (specify) _____			
Does the SSEG include storage capabilities (tick appropriate):	Storage capacity:		Yes <input type="checkbox"/> No <input type="checkbox"/>
		kW	
		kWh	
System type (tick):		Rooftop <input type="checkbox"/>	Ground mounted <input type="checkbox"/> Building integrated <input type="checkbox"/>
Other system type (specify) _____			
Existing main switch:	Voltage (V):	Current (A):	
Total inverter AC capacity (kVA):		Total (nameplate) capacity (kWp):	
Grid Connection mode (tick appropriate):	Energy from system to be used solely within the consumer's electricity network and no excess power to be exported to CoE's Electricity Distribution network at any time (i.e. reverse power blocking to be installed)		
	Energy from system to be used within consumer's electricity network and excess power to be exported to CoE's Electricity Distribution network		
	Energy from system to be used solely for exporting to CoE's Electricity Distribution Network		
	Energy from system to be used only within customer's electricity network, with no physical connection between the customer's		

¹ Licence requirements and exemptions are subject to NERSA guidelines, as published in the ERA.

	network (or phase on which the SSEG is connected) and the CoE Electricity Distribution network (i.e. off-grid).	
Earthing arrangements i.e. TN-C-S:		

* Provide product description details and specifications of generation technology as a separate appendix to this application

D3. SSEG system details

Make and Model of key generation Equipment	Manufacturer:		
	Model:		
	Serial No:		
	Phase: (Tick)	Single <input type="checkbox"/>	Three <input type="checkbox"/>
Electrical parameters of SSEG: (All units in parallel, to be used for fault-level studies. Not all of these parameters apply to all modes of SSEG. Insert N/A if not applicable).	Rated Voltage:		
	Maximum MVAR limit		
	Inertia constant		
	Maximum peak short-circuit current (A)		
	Neutral to earth resistance (ohms)		
	Xd – Synchronous reactance (p.u.)		
	X'd – Direct axis transient reactance (p.u.)		

D4. Estimated Consumption and Generation Levels

Current electricity consumption/month (kWh)	Range from:	to:
Estimated average output of solar PV/month (kWh)	Summer:	Winter:
Monthly reverse feed (export) estimation (kWh)	Summer:	Winter:
Maximum (peak) expected export power onto Municipal grid (kVA)		

D5. Preliminary design details (for systems >18kVA only):

A preliminary circuit diagram and design showing major components, proposed point of common coupling, isolating and interfacing devices with the municipal electrical network, protection schemes, customer electrical installation, earthing arrangements, etc. should be attached as an appendix to this application form.

D6. Inverter Details

Manufacturer:			
Model:			
Number of Inverters:			
Inverter AC rating (kVA):	Each:	Total (if multiple):	
Other information:			
Number of Phases*:	Single Phase (✓)		Three Phase (✓)
Is the inverter/s certified according to NRS 097-2-1? (test certificate must be attached to this application):			
Please tick applicable below:			(✓)
Islanding			
Anti-islanding			
Reverse blocking			

* - see NRS097-2-3 for phase balancing requirements

SECTION E: Commissioning Report**E1. Project Name**

Project name:	
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E2. Account Holder Details

Name:		
Municipal Account Number:		
ERF No:		
Telephone Number:	Landline:	Mobile:
Email Address:		
Physical address:		

E3. Installer Details

Company name:		
Contact Person Name:		
Telephone:	Landline:	Mobile:
Email address:		
DoL Reg Number:		

E4. SSEG Details

Inverter manufacturer and model:	
Inverter AC rating (kVA) (total if more than one inverter):	
Single of three phase:	
Serial number/s of inverter/s:	
Reverse power blocking method (or N/A):	

E5. Attachments Checklist*:

Final as-built circuit diagram:	✓
Inverter type test Certificate of Compliance according to NRS 097-2-1, issued by accredited 3 rd party test house:	
Electrical installation Certificate of Compliance according to SANS 10142-1 (and SANS 10142-3 when published):	

* Note: The signed application form, together with final approval from CoE, will service the contract.

E6. Compulsory Declaration (to be completed by ECSA registered Pr Eng or Pr Cert Eng or Pr Tech Eng)

The SSEG installation complies with the relevant sections of NRS 097-2-1 and NRS 097-2-3:	
The loss of mains protection (anti-islanding) has been checked to be functional in test carried out as part of the on-site commissioning – i.e. a momentary disconnection of the mains supply to the site:	
Safety labels have been fitted in accordance with NRS 097-2-1:	
The SSEG installation complies with the relevant sections of SANS 10142-1 and SANS 10142-3 'Low voltage embedded generators' standard (as published), and an installation certificate of compliance is attached:	
The SSEG installation complies with licensing requirements of NERSA	
Reverse power blocking protection system installed and commissioned to prevent reverse power flow onto the municipal distribution electricity network (or N/A):	
Comments:	
Date: Signature:	
ECSA registered Pr Eng or Pr Cert Eng or Pr Tech Eng Details	
Full Name:	
Company Name:	
Telephone:	Landline: Mobile:
Email address:	
ECSA Reg no.	

SECTION F: Decommissioning / Moving SSEG Off-grid Report**F1. Account Holder Details**

Name:		
Electricity Account Number:		
ERF No:		
Telephone Number:	Landline:	Mobile:
Email Address:		
Physical address:		

F2. Inverter Details

Inverter manufacturer and model:	
Inverter AC rating (kVA) (total if more than one inverter):	
Serial number/s of inverter/s:	

F3. Decommissioning Agent Details

Name:		
Accreditation/qualification:		
Address (incl. post code):		
Certificate of Compliance number (provide certified copy of the CoC which confirms that the SSEG has been disconnected effectively from the municipal electrical distribution grid):		
Telephone number:	Landline:	Mobile:
E-mail address		
Name:	Signature:	Date:

SECTION G: Declaration

I request the City of Ekurhuleni to proceed with a preliminary review of this embedded generation interconnection application / decommissioning / transfer of ownership (delete non-applicable) and I agree to pay the cost associated with completing this review and obtaining written consent of the Municipality, though such costs are unlikely except if grid studies are required. Should such grid studies be required, a quotation for such work will be provided beforehand, giving me the opportunity to cancel or modify the application should I wish to do so.

I further consent to the CoE providing this information to the National Electricity Regulator of SA (NERSA).

I declare that this installation has been designed such that it complies with the requirements laid out in the latest version of the Municipality's *Requirements for Embedded Generation* document. I agree not to interconnect and operate this proposed SSEG system without written approval from the Municipality to do this.

Account Holder/Property Owner Signoff:

_____	_____	_____
Name	Date	Signature

DOL registered Electrician / PV Installer / Technician Signoff:

Organisation name:		
Person:		
_____	_____	_____
Name	Date	Signature

Return completed form to the relevant office, or email address:

Office: Room 4XX, 4 TH Floor, Boksburg Civic Centre, Trichardt's Road, Boksburg. Email: SSEG@ekurhuleni.gov.za
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Attachments to this application checklist (tick)

Preliminary circuit diagram (if >18kVA)	✓
Annex 4: Regulation 8(1) of the Electrical Installation Regulations (EIR), 2009 Notice of Commencement of Installation Work	
Inverter type test Certificate of Compliance and Test Report according to NRS 097-2-1, issued by accredited 3 rd party test house	
Supplemental power generation technology product description and specifications	
City Planning Department Approval	
Department of Environmental Resource Management Approval	
Disaster & Emergency Management Services Approval	

FOR OFFICE USE

1. Other municipal department approvals:

Clearance by other Municipal departments

SECTION	COMMENTS	NAME	SIGNATURE	DATE
City Planning Department				
Disaster & Emergency Management Services				
Department of Environmental Resource Management				

Notes:

1. Energy Department will require **prior** approval from this department if necessary. Applications to connect to the municipal electrical grid will not be considered until relevant approval has been obtained by the applicant.
2. SSEG applications will require approval from Planning and Building Development Management if:
 - a) Roof top installations: PV panel(s), turbines etc. in its installed position projects more than 1.5m, measured perpendicularly, above the roof and/or projects more than 600mm above the highest point of the roof;
 - b) Installations on the ground: PV panel(s), turbines etc. in its installed position projects more than 2.1 metres above the natural/finished ground level.
3. SSEG applications will require approval from Environmental Resource Management if emitting generators, such as diesel fuel generators, are utilised.

2. Alternative and Renewable Energy Division

Date Application Received:	<input type="text"/>	Application Reference No.	<input type="text"/>
Further Information Required	<input type="text" value="YES / NO"/>	Date Received:	<input type="text"/>
Inspection Required	<input type="text" value="YES / NO"/>	Date Undertaken:	<input type="text"/>
More detailed studies Required	<input type="text" value="YES / NO"/>	Date Complete:	<input type="text"/>
Approved in Principle:	<input type="text" value="YES / NO"/>	Date Applicant Advised:	<input type="text"/>

3. Revenue Services

Direct driven Meter change required:	<input type="text" value="YES / NO"/>	Date Applicant Advised:	<input type="text"/>
Tariff Change approved:	<input type="text" value="YES / NO"/>	Date Applicant Advised:	<input type="text"/>
Instruction given for the installation of Direct driven Meter	<input type="text" value="YES / NO"/>	Date Applicant Advised:	<input type="text"/>

4. Operations and Maintenance

Existing Safety Labels on network:	YES / NO	Date Applicant Advised:	
Noting for Safety labels required:	YES / NO	Date Applicant Advised:	

4.1 Protection Test and Metering

Existing protection and fault settings adequate:	YES / NO	Date Applicant Advised:	
Protection and fault settings adjusted:	YES / NO	Date Applicant Advised:	
Installation of AMR CT- CT/ VT	YES / NO		

4.2 Planning and Construction

Import Network Capacity	YES / NO	Date Applicant Advised:	
Export Network Capacity:	YES / NO	Date Applicant Advised:	

5. Commissioning

Commissioning Report received:	YES / NO	Date received:	
Further information required:	YES / NO	Date Received:	
Installation inspection: Copy of COC received	YES / NO	Date inspected:	
SSEG meter installed	YES / NO	Date installed:	
Tariff change effected	YES / NO	Date changed:	

Comments:

6. Final CoE Approval

_____	_____	_____
Name and designation	Date	Signature / Stamp

7. Decommissioning

Decommissioning Report received:

Date received:

Decommissioning CoC received:

Date received: