

ENERGY DIRECTORATE GEN/EMB

APPLICATION FOR THE CONNECTION OF EMBEDDED GENERATION

This application form is for connecting embedded generation (EG) and solar PV geysers to residential, commercial, or industrial electrical systems. Only City of Cape Town-approved grid-tied inverters are allowed for EG connections. Visit the City's List of Approved Inverters.

By making an application and signing this form, the applicant gives consent to the processing of his/her/its personal information as reflected thereon, as understood in terms of the Protection of Personal Information Act, 2013, and to the further processing thereof internally within the City of Cape Town and to its contractors and service providers and its research partners, subject to the conditions of the said Act.

A separate "Application for a new or modified electricity supply service" form must also be completed where the City will replace the existing credit meter with an AMI meter under 100 Amp and applications bigger than 350kVA where a network study is required. Please note that registration is required for geysers connected to photovoltaic (PV) solar panels.

Please make sure your application adheres to the most recent "**Requirements for SSEG**" document before submitting your application.

All relevant sections must be completed.

ENQUIRIES AND FORM SUBMISSIONS

Customer Support Services: Area North
Electricity House City,
Cnr Buitengracht & Hout Street,
Cape Town, CBD: (tel) 021 444 1394/6
Email:
electricityapplications.north@capetown.gov.za

<u>Customer Support Services: Area East</u> Energy Head Office,

Bloemhof Complex, Bloemhof Street Bellville; (tel) 021 444 8511/2

Email:

electricityapplications.east@capetown.gov.za

Customer Support Services: Area South

First Floor, Wynberg Electricity Depot, Rosmead Avenue, Wynberg (tel) 021 400 4750/1/2/3

Email:

electricityapplications.south@capetown.gov.za

A. PROPERTY OWNER

You, as the property owner, will need to provide the following details:

SERVICE LOCATION		PROPERTY OWNER		
ERF NUMBER		TITLE or COMPANY NAME		
PHYSICAL ADDRESS		FIRST NAME / REGISTRATION NO.		
		SURNAME / NAME OF PERSON REPRESENTING THE COMPANY		
TOWNSHIP / SUBURB / FA	TOWNSHIP / SUBURB / FARM			
POSTAL CODE		MUNICIPAL RATES ACCOUNT NO.		
PROPERTY OWNER CO	ONTACT DETAILS			
WORK NO		CELLPHONE NO		
EMAIL ADDRESS				

If no proxy exists all documentation will be sent to the email address as listed above

B. EXISTING ELECTRICAL SUPPLY DETAILS

Your installer will need to complete, or provide information for the following:

PROPERTY DISTRIBUTION BOARD MAIN CIRCUIT BREAKER									
AMPERE (A)		PHASE (Tick the appropriate box) SINGLE THREE							
PROPERTY EXIST	PROPERTY EXISTING METERING DETAILS - All old type of meters will be replaced with new modern meter (if applicable)								
METER NO.	METER NO.								
METER TYPE (Conventional (credit) / prepayment / bi-directional AMI)									

C. TYPE OF SSEG INSTALLATIONS

Please consult your installer if uncertain.

APPLICATION TYPE (Tick the appropriate boxes)													
RESIDENTIAL					COMMERCIAL / INDUSTRIAL								
NEW REVISED APPLICATION													
SYSTEM MODIFICATION OR I	XPA	NSION					CHAN	GE OF PROP	ERTY O	WNER			
TYPE OF ENEGY SOURCE (Tick the appropriate boxes) PV WIND LAN				IDFILL		BIOMASS		BIOGASS		HYDRO			

PLEASE CHOOSE TYPE OF EMBEDDED GENERATION / SSEG SYSTEM BEING APPLIED FOR (please tick) Single line diagrams not required for residential and commercial connections up to and including 100 A. 1. **GRID-TIED SSEG** (See sheet 2 on following drawing **link**) Complete inverter and PV panels information below. Does the single line diagram comply with sheet 2? YES NO **2. GRID-TIED HYBRID SSEG** (See sheet 3 on following drawing **link**) Complete inverter, battery/ies and PV panels information below. Does the single line diagram comply with sheet 3? YES NO **3. GRID-TIED BATTERY ONLY** (See sheet 4 on following drawing **link**) Complete inverter and battery/ies information below Does the single line diagram comply with sheet 4? YES NO 4. SOLAR PV GEYSER SSEG (See sheet 5.1 and 5.2 on following drawing link) **SHEET 5.1 SHEET 5.2** Does the single line diagram comply with sheet 5.1 OR 5.2? YFS NO YES NO TOTAL RATING OF ALL THE INVERTERS INSTALLED (kVA) The sum of the name plate rating of all inverters EXPORTING EXCESS POWER BACK INTO THE GRID? (only applicable on options 1 & 2 above) (Tick the appropriate box) YES NO MAXIMUM EXPORT CAPACITY OF THE INVERTER/S TO THE GRID (kVA) (If applicable) (Tick the appropriate boxes) N/A YES NO IF NOT EXPORTING POWER, IS THERE A REVERSE FLOW BLOCKING DEVICE INSTALLED? INDUSTRIAL AND COMMERCIAL ONLY Single line drawings must provided for all installation greater than 100 A. PRELIMINARY DESIGN - (NO BLOCK DIAGRAM ALLOWED) link to example drawings: Example Drawings Please attach a single line drawing showing major components, proposed point of common coupling, isolating and interfacing devices with City of Cape Town electrical network, protection schemes, customer electrical installation, operating characteristics, etc. **SITE PLAN** Attach plan showing location and dimensions of intended installation infrastructure in relation to the existing buildings and property point of connection (tick here if drawing attached) MAKE AND MODEL OF INVERTER - Please provide the exact manufacture & model number of the inverter as listed on the approved inverter list Only City-approved grid-tied inverters are permissible - Inverter list link MANUFACTURER MODEL QUANTITY **PHASE** (Tick the appropriate box) SINGLE THRFF Please provide the following information if multiple types of inverters are used. (For additional inverter types, attach a separate sheet) **MANUFACTURER** MODEL

QUANTITY			PHASE (Tick th	ne appropriate box)	SINGLE		THR	EE		
MAKE AND MODEL INFORMATION OF BATTERY/IES. BATTERIES INSTALLED - (please fick) YES NO										
MANUFACTURER			MODEL				kWh			
QUANTITY	TOTAL kWh VOLTAGE (V)									
MAXIMUM CHARGING CURRENT Maximum AC current drawn from the grid (distribution board) by the inverter for the purpose of charging the batteries.					AMPER	E (A)				

MAKE AND MODEL INFORMATION OF PHOTOVOLTAIC (PV) PANELS.								
MANUFACTURER MODEL								
QUANTITY		WATT PER PA	NEL		TOTAL WATT			

D. INSTALLER, ELECTRICAL CONTRACTOR AND ECSA PROFESSIONAL DETAILS

INSTALLER DETAILS (appointed solar company or consulting engineers)						
INSTALLER						
ADDRESS						
	POSTAL CODE					
CONTACT PERSON						
WORK NO.	CELLPHONE NO.					
EMAIL ADDRESS						

ELECTRICAL CONTRACTOR (Person responsible for electrical installation work and Certificate of Compliance (COC)) Provide proof of registration as an electrical contractor with the Department of Labour.								
TITLE; NAME & SURNAME								
COMPANY	OMPANY DEPARTMENT OF EMPLOYMENT AND LABOUR REGISTRATION NUMBER							
CELLPHONE NO EMAIL ADDRESS								

ECSA REGISTERED PROFESSIONAL[®] DETAIL (Not applicable for solar PV geysers)								
NAME AND SURNAME	DISCIPLINE: RELATED ELECTRICAL AND ELECTRONIC FIELD							
REGISTRATION NO.	*REGISTRATION CATEGORY (Tick the appropriate box)→	Pr. Eng.	Pr. Tech. Eng.		Pr. Cert. Eng.		Pr. Techni. Eng.	

*All SSEG installation sign-off: (Pr. Eng.) - Professional Engineer; (Pr. Tech. Eng.) - Professional Engineering Technologist;

(Pr. Cert. Eng.) - Professional Certified Engineer. **Residential SSEG installations sign-off**: (Pr. Techni. Eng.) Professional Engineering Technician Note: The details of the ECSA registered professional shall be provided upfront as they are involved in the design of the system. ECSA professional sign-off is mandatory at the commissioning stage in accordance with Appendix 1 for grid-tied embedded generation.

E. DECLARATION AND PROXY

DECLARATION

I acknowledge that the City of Cape Town Energy Directorate will proceed with the review of this grid-tied embedded generation interconnection application. I understand that:

- I acknowledge that if I have an old-type meter and I am not exporting power (residential only), it will be replaced with a new split-prepaid meter.
- I will have to pay for both in-house and outsourced engineering studies conducted as part of this review, should these be required; and a quotation for such work will be provided beforehand, allowing me to cancel or modify the application should I wish to do so.
- I further acknowledge that the City of Cape Town will provide this information to the National Energy Regulator of South Africa (NERSA) and other Distributors, as required.

I/we, the owner(s) of the property or appointed proxy, hereby declare that I/we have taken the necessary steps to ensure all information contained in this declaration form is correct. I/we further acknowledge and agree to comply with the provisions of the City of Cape Town Electricity Supply By-law and Conditions of Supply $^{\textcircled{1}}$

SIGNED (PROPERTY OWNER /	PROXY)	
DATE		
If the property owner has assig a copy of the completed prox	gned a proxy cy [©] form (An	y to apply on their behalf, the following proxy details section must be completed. Additionally, inexure 2 attached) and the ID of the designated individual must be attached to this application.
PROXY DETAILS		
FIRST NAME & SURNAME		
EMAIL ADDRESS		

0"ECSA professional" refers to an electrical professional engineer, professional technologist, professional certificated engineer or professional engineering technician (domestic only) who is registered with the Engineering Council of South Africa (ECSA).

 $^{\textcircled{0}}$ Available under Reference Documents at $\underline{\text{http://www.capetown.gov.za/elecserviceforms}}$

Only the property owner may sign this declaration if no proxy is involved. Proof of property ownership must be attached to the application form. This can be a property rates account, title deed or proof of registration. If applying on behalf of the property owner(s), an approved letter of proxy must be attached to the application. If the owner is a private person, a copy of his/her identity document or passport must be attached to the declaration form. If the owner is not a private person, a copy of the business/trust/body corporate registration form must be attached to the declaration form, together with a copy of the signatory's identity document.

¹ If the owner is a natural person, a letter is required wherein the property owner appoints the signatory as a proxy. The letter must be signed by the owner and accompanied by a copy of his/her identity document. If the owner is not a natural person, a resolution of the board (or equivalent strategic body, depending on the nature of the company) is required, authorising the signatory to sign on behalf of the company. The property owner's details should still be completed in the property owner section. The only change is in the declaration section where, in the case of a proxy, the owner's name is filled in without his/her signature and the proxy signs on behalf of the owner in the appropriate field. All other documentation required has to be submitted, including proof of ownership.

F. CLEARANCE BY OTHER CITY OF CAPE TOWN DEPARTMENTS (Approval letter required if applicable from the relevant department. See notes.)

Notes:

- 1. Energy Directorate will require prior written approval from the following departments, where applicable. Applications will not be considered until all relevant approvals have been obtained.
 - Planning and Building Development Management (Area offices) Zoning/subdivision/building structure plans
 - City Health Specialised Services (021) 4003781 Noise impact assessment and ventilation
 - City Health Specialised Services (021) 5905200 Air pollution and quality (only applicable to fuel-burning technologies)
- 2. Photovoltaic (PV) SSEG applications will require approval from Planning and Building Development Management only if:
 - a) Rooftop installations: PV panel(s) 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) in its installed position projects more than 2,1 meters above the natural/finished ground level.
- 3. PV SSEG applications typically do not require approvals for noise impact assessment and ventilation nor air pollution and quality.
- 4. a) Micro Wind Turbine means 'wind turbine infrastructure' which has the following Restrictions:
 - (I) Maximum blade diameter of 700m
 - (II) Maximum height of blades above ground level of 2.5m if freestanding
 - (iii) Maximum height of blades above the roof of 1.5m when attached to the building and a minimum distance from the boundary wall of 2.5m.
 - b) Small-Scale Wind Turbine means 'Wind Turbine Infrastructure' where the rotor axis is horizontal, and the overall rotor diameter does not exceed 3m; or where the rotor axis is vertical, and the power output does exceed 3 kW, but excludes a Micro Wind Turbine.
 - c) Wind Building Plans Requirements

Please note that building plan applications will be required for Small-Scale Wind Turbines. Building plan applications will not be required for Micro Wind Turbines.

APPENDIX 1 – GRID-TIED SSEG INSTALLATION COMMISSIONING REPORT

The Commissioning Report must be completed by an ECSA registered professional 0 once you have received permission and your system has been installed. The following SSEG Commissioning Report must be submitted for each installation, confirming compliance with the City's requirements.

•						
		SITI	DETAILS			
PROPERTY ADDRESS						
SUBURB					POSTAL CODE	
ERF NO.						
BUSINESS PARTNER NO.			MUNICIPAL RA	ATES ACCOUNT N	10	
			NTACT DETAILS			
PROPERTY OWNER			MIACI DEIAILS			
CONTACT PERSON						
CONTACT TELEPHONE NO.						
CONTACT TELEFHONE NO.						
		SS	EG DETAILS			
MANUFACTURER AND MOI	DEL TYPE					
SERIAL NUMBER/S OF INVE	-					
TOTAL CAPACITY OF EMBE GENERATION (kVA & PF)	DDED					
SINGLE-PHASE OR THREE-P	HASE					
ELECTRICAL CONTRACT	OR (Pers	son responsible for electrical i	installation work an	d Certificate of	Compliance (COC))	
TITLE; NAME & SURNAME						
COMPANY			DEPARTM	ENT OF EMPLOY! OUR REGISTRATION	MENT	
CELLPHONE NO.			EMAIL ADDRESS	OUR REGISTRATIO	ON NUMBER	
CELLI HORE NO.			2713 112 7 12 3 112 00			
			ON TO BE ATTACHE	1		
FINAL COPY OF CIRCUIT DI	IAGRAM	APPLICABLE ELECTRICAL I COMPLIANCE IN TERMS C		CATE OF	SIGNED CONTRACT FOR SSEG	
COMPULSORY DECLARATION OR PRITECHNIENG FOR RE	ON – TO B	BE COMPLETED BY ECSA REGIS	STERED PR ENG, PR	IECH ENG, PR CE	ERT ENG FOR ANY SSEG INSTALL	ATION
		THE LATEST EDITIONS AND RELEVA		097-2-1 AND SOUT	H AFRICAN GRID CODES.	
		EEN PROVED BY A FUNCTIONAL TE e grid supply to the SSEG in order				
PROTECTION SETTINGS HAVE B	EEN SET TO	O COMPLY WITH THE LATEST EDITIONED BY APPROPRIATE HARDWARE OF	N OF NRS 097-2-1 AN	D THE MAXIMUM EX	XPORT CAPACITY OF THE	
·		CORDANCE WITH THE LATEST EDITION		· · · · ·	ole)	
THE GRID-TIED SSEG INSTALLAT			NS OF SANS 10142-1 A	ND AN INSTALLATIO	ON CERTIFICATE OF COMPLIANCE	
	ING PROTE	ECTION HAS BEEN INSTALLED AND	COMMISSIONED TO P	REVENT REVERSE PO	OWER FLOW INTO THE ELECTRICITY	
COMMENTS (continue on a se						
NAME AND SURNAME						
ECSA PROFESSIONAL CATE	GORY					
ECSA REGISTRATION NO.						
SIGNATURE						
DATE						

⁰"ECSA professional" refers to an electrical professional engineer, professional technologist, professional certificated engineer or professional engineering technician (domestic only) who is registered with the Engineering Council of South Africa (ECSA).

APPENDIX 2 – PROXY FORM

Date:			
l,	(prop	perty registered own	er's name),
holding Identification Num	ber / Company Registration	n Number	
hereby authorise the repre	sentative,	(Repres	sentative's Full
Name and Surname), to a	ct on my behalf in all matte	rs related to this app	olication with
the City of Cape Town.			
This authorisation is applica	able to: Property erf number	Suburb:	
Effective from	(Start Date) to		(End Date).
Details of the Authorised Re	epresentative:		
Representative ID number:			<u> </u>
Name of the company (if o	applicable):		
Representative Contact De	etails:		
Email address of represente	ative:		
Signature of the Represent	ative:		
Please note that the repidentification document fo	oresentative is required to or verification purposes.	attach a certified	d copy of their
Yours sincerely,			
Owners full Name:			
Owners Contact details:			
Owners Signature:			