VERSION 2023-10-27



#### CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD

### 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	Customer Support Services: Area East	Customer Support Services: Area South
Electricity House City,	Energy Head Office,	First Floor, Wynberg Electricity Depot,
Cnr Buitengracht & Hout Street,	Bloemhof Complex, Bloemhof Street	Rosmead Avenue, Wynberg
Cape Town, CBD: (tel) 021 444 1394/6	Bellville; (tel) 021 444 8511/2	(tel) 021 400 4750/1/2/3
Email:	Email:	Email:
electricityapplications.north@capetown.gov.za	electricityapplications.east@capetown.gov.za	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	
		FIRST NAME / REGISTRATION NO.	
THISICAL ADDRESS		SURNAME / NAME OF PERSON REPRESENTING THE COMPANY	
TOWNSHIP / SUBURB / FARM		BUSINESS PARTNER NO.	
POSTAL CODE		MUNICIPAL RATES ACCOUNT NO.	
PROPERTY OWNER CONT	ACT 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 ap	opropriate box)	SINGLE		THREE	
PROPERTY EXISTING METERING DETAILS - All old type of meters will be replaced with new modern meter (if applicable)						ble)	
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					COMM	COMMERCIAL / INDUSTRIAL							
NEW					REVISED APPLICATION								
SYSTEM MODIFICATION OR EXPANSION					CHANGE OF PROPERTY OWNER								
<b>TYPE OF ENEGY SOURCE</b> (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.

				0.11				
1. GRID-TIED SSEG (See Complete inverter and	sheet 2 on following drawing <b>link)</b> PV panels information below.							
Does the single line dia	gram comply with sheet 2 ?						YES	NO
2. GRID-TIED HYBRID SS	EG (See sheet 3 on following drawing the state of the sta	ng <u>link</u> ) below						
Does the single line dia	Igram comply with sheet 3 ?						YES	NO
3. GRID-TIED BATTERY O	NLY (See sheet 4 on following draw	ving <b>link</b> )						
Does the single line dia	gram comply with sheet 4 ?						YES	NO
4. SOLAR PV GEYSER SS	<b>EG</b> (See sheet 5.1 and 5.2 on follow	<i>i</i> na drawina <b>lin</b>	(k)				·	
		•			SHEET	5.1	SHE	ET 5.2
Does the single line did	Igram comply with sheet 5.1 OR 5.2	?			YES	NO	YES	NO
TOTAL RATING OF ALL TH The sum of the name plate	IE INVERTERS INSTALLED (kVA) rating of all inverters.							
EXPORTING EXCESS POW	VER BACK INTO THE GRID ? (only app	licable on optio	ns 1 & 2 above)	(Tick th	ne approp	riate box)	YES	NO
MAXIMUM EXPORT CAP	ACITY OF THE INVERTER/S TO THE GRI	ID (kVA) (If appl	icable)			_		
IF NOT EXPORTING POWE	R, IS THERE A REVERSE FLOW BLOCKING	G DEVICE INSTA	L <b>LED ?</b> (Tick th	e appropric	ate boxes)	N/A	YES	NO
INDUSTRIAL AND CO	MMERCIAL ONLY Single line drawing	gs must provided	for all installation gr	reater than	100 A.			
PRELIMINARY DESIGN	- (NO BLOCK DIAGRAM ALLOWED)	link to exampl	e drawings : Exar	nple Draw	ings			
Please attach a single li devices with City of Cap	ne drawing showing major compor pe Town electrical network, protectic	nents, proposed on schemes, cu	d point of comm stomer electrical	on couplir installation	ng, isolatii n, operat	ng and in ing chara	terfaci cteristi	ng cs,
SITE PLAN				(fick ne	re ir arawir	ng anrache	a) —	
Attach plan showing loc	cation and dimensions of intended i	installation infro	astructure in relat	ion to the	existing b	ouildings c	and	
property point of conne	ection.			(tick he	re if drawir	ng attache	ed) — )	
MAKE AND MODEL C Only City-approved gr	DF INVERTER - Please provide the exact id-tied inverters are permissible - Inverters	ct manufacture 8 <b>verter list link</b>	model number of	the inverter	as listed a	n the appi	oved in	verter list
MANUFACTURER		MODEL						
QUANTITY		PHASE (Tick the	e appropriate box)	SINGLE		TH	REE	
Please provide the follo	wing information if multiple types of	inverters are u	sed. (For additior	hal inverte	r types, a	ttach a s	eparat	e sheet)
MANUFACTURER		MODEL			_			
QUANTITY		PHASE (Tick the	e appropriate box)	SINGLE		TH	REE	
MAKE AND MODEL IN	FORMATION OF BATTERY/IES.		BATTERIES	INSTALLED	- (please	tick) <b>YES</b>		NO
MANUFACTURER		MODEL				kWh		
QUANTITY	TOTAL kWh			VOLTA	GE (V)		-	
MAXIMUM CHARGING	CURRENT	or the purpose of cl	naraina the batteries.	AMPE	RE (A)			
MAKE AND MODEL I		C (PV) PANEL	<b>S</b> .					
MANUFACTURER		MODEL						
QUANTITY		WATT PER PAI	NEL	TO	TAL WATT			
				<u>د</u>				
INSTALLER DETAILS	D. INSTALLER, ELECTRICAL CONTRACTOR AND ECSA PROFESSIONAL DETAILS							
		ng engineers)						
INSTALLER								
ADDKE22								
		P	OSTAL CODE					
CONTACT PERSON		P	OSTAL CODE					

EMAIL ADDRESS

L

<b>ELECTRICAL CONTRACTOR</b> (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 & SURN	AME										
COMPANY					D A	EPART ND LA	MENT OF EMP BOUR REGISTI	LOY	MENT ON NUMBER		
CELLPHONE NO					EMAIL A	DRESS	5				
ECSA REGISTERED PROFESSIONAL <sup>®</sup> DETAIL (Not applicable for solar PV geysers)											
NAME AND SURNAME		DISCIPLINE: RELATED ELECTRICAL AND ELECTRONIC FIELD									
REGISTRATION NO.			*REGISTRATIO	N CATEGOR	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 splitprepaid 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  $^{\textcircled{0}}$ 

## SIGNED (PROPERTY OWNER / PROXY)

With a second	
DATE	

If the property owner has assigned a proxy to apply on their behalf, the following proxy details section must be completed. Additionally, a copy of the completed proxy<sup>®</sup> form (Annexure 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).

<sup>®</sup>Available under Reference Documents at <u>http://www.capetown.gov.za/elecserviceforms</u>

<sup>®</sup>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.

<sup>1</sup> 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)

Photovoltaic (PV) SSEG applications will require approval from Planning and Building Development Management only if:

a) <u>Rooftop installations</u>: 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.
- PV SSEG applications typically do not require approvals for noise impact assessment and ventilation nor air pollution and quality.
  - 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

2.

3.

4.

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.

APPLICATION FOR THE CONNECTION OF SMALL SCALE EMBEDDED GENERATION 3 of 3 Page

### 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.

PROPERTY ADDRESS							
SUBURB				POSTAL CODE			
ERF NO.							
BUSINESS PARTNER NO.			MUNICIPAL RATES ACCOUNT	NO			
		CON	TACT DETAILS				
PROPERTY OWNER							
CONTACT PERSON							
CONTACT TELEPHONE NO.							
		SSEC	DETAILS				
MANUFACTURER AND MOI	DEL TYPE						
SERIAL NUMBER/S OF INVE	RTER/S						
TOTAL CAPACITY OF EMBE GENERATION (kVA & PF)	DDED						
SINGLE-PHASE OR THREE-P	HASE						
ELECTRICAL CONTRACT	OR (Perso	on responsible for electrical ins	tallation work and Certificate c	of Compliance (COC))			
TITLE; NAME & SURNAME		·					
COMPANY			DEPARTMENT OF EMPLO AND LABOUR REGISTRA	YMENT TION NUMBER			
CELLPHONE NO.			EMAIL ADDRESS				
		INFORMATION	I TO BE ATTACHED				
FINAL COPY OF CIRCUIT D	IAGRAM	APPLICABLE ELECTRICAL INS COMPLIANCE IN TERMS OF	TALLATION CERTIFICATE OF SANS 10142-1	SIGNED CONTRACT FOR SSEG			
	ON – TO B	E COMPLETED BY ECSA REGISTI	RED PR ENG, PR TECH ENG, PR	CERT ENG FOR ANY SSEG INSTALLATION			
THE SSEG INSTALLATION COM	PLIES WITH 1	THE LATEST EDITIONS AND RELEVANT	SECTIONS OF NRS 097-2-1 AND SO	UTH AFRICAN GRID CODES.			
THE LOSS OF MAINS PROTECTION HAS BEEN PROVED BY A FUNCTIONAL TEST CARRIED OUT AS PART OF THE ON-SITE COMMISSIONING							
PROTECTION SETTINGS HAVE BEEN SET TO COMPLY WITH THE LATEST EDITION OF NRS 097-2-1 AND THE MAXIMUM EXPORT CAPACITY OF THE INVERTER/S TO THE GRID HAS BEEN LIMITED BY APPROPRIATE HARDWARE OR SOFTWARE SETTINGS (where a conficiency of the limit of the set o							
SAFETY LABELS HAVE BEEN FITTED IN ACCORDANCE WITH THE LATEST EDITION OF NRS 097-2-1AND SANS 10142-1							
THE GRID-TIED SSEG INSTALLATION COMPLIES WITH THE RELEVANT SECTIONS OF SANS 10142-1 AND AN INSTALLATION CERTIFICATE OF COMPLIANCE							
REVERSE POWER FLOW BLOCKING PROTECTION HAS BEEN INSTALLED AND COMMISSIONED TO PREVENT REVERSE POWER FLOW INTO THE ELECTRICITY DISTRIBUTION NETWORK (where applicable)							
COMMENTS (continue on a separate sheet if necessary)							

NAME AND SURNAME	
ECSA PROFESSIONAL <sup>©</sup> CATEGORY	
ECSA REGISTRATION NO.	
SIGNATURE	
DATE	

<sup>O</sup>"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:						
I,( property registered owner's	s name),					
holding Identification Number / Company Registration Number						
hereby authorise the representative,(Represen	ntative's Full					
Name and Surname), to act on my behalf in all matters related to this application with						
the City of Cape Town.						
This authorisation is applicable to: Property erf numberSuburb:						
Effective from(Start Date) to	_(End Date).					
Details of the Authorised Representative:						
Representative ID number:						
Name of the company (if applicable):						
Representative Contact Details:						
mail address of representative:						
Signature of the Representative:						

Please note that the representative is required to attach a certified copy of their identification document for verification purposes.

Yours sincerely,

Owners full Name:	
-	

Owners Contact details:	

Owners Signature:

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