a world class African city

APPLICATION FOR INVERTER BASED GRID TIED PHOTOVOLTAIC INSTALLATION FORM

Return Completed Form To:

Renewable Energy Department
City Power Johannesburg
P O Box 38766
Booysens, 2016

Telephone : (011) 490-7211
Facsimile : (011) 490-3727
jozipvpower@citypower.co.za

T/ship Name		**ERF No**	
Notification no	70020_____	**Account No**	
BP no		**Premise**	
Council Meter No			

Applicant Contact & Personal details

Name	
Telephone Number	
Facsimile Number	
E-Mail	

Property/Account Owner Contact & Personal details:

Name	
Telephone Number	
Facsimile Number	
E-Mail	

Rating and capacity Service connection:
Tick appropriate box

Less than 17kVA single phase 60/80A	
Less than 55kVA three phase 60/80A	
Less than 100kVA but three phase 150A connection	
Greater than 100kVA and less than 1000kVA Specify circuit breaker rating (A) _____	

Land Type

Residential	
Business	
Commercial/Industrial	

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Site Plan

Address	
GPS coordinates	
For Business/Commercial/Industrial only(Show detailed site plan/layout with equipment and grid connection locations)	

Total Capacity of PV (KVA and PF)

Grid Connected Mode of PV: tick appropriate box

Energy from PV to be used solely within a consumer's electricity network and no excess power to be exported to City Power's Electricity distribution network at any time.	
Energy from PV to be used within a consumer's electricity network and excess power to be exported to City Power's Electricity distribution network	
Energy from PV to be used solely for exporting to City Power's Electricity distribution network	
Any of the above with Energy Storage	

Planned Construction Schedule

Projected Construction Start Date	
Projected in-service date of PV installation	

Type of Energy Storage (Battery, UPS etc. Details to be attached)

Does the Embedded Generation (EG) include storage capabilities? (✓ appropriate):			
No_ Storage		**Yes_ Storage**	
		Only as standby power – cannot operate in parallel and feed onto the grid	
		Connected in parallel to EG – can feed onto the grid	
Storage Manufacturer			
Storage Type			
Capacity of storage (kWh)		C-rating	
If connected in parallel - Specify anti-islanding arrangements			

Inverter Type:

Manufacturer	
Model	
Phase(Single/Three)	
Number of inverters	
Inverter Rating	

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Inverter Size and Connection details
Tick appropriate box

Inverter less than 4kVA single phase 60/80A connection	
Inverter less than 15kVA three phase 60/80A connection	
Inverter greater than 15kVA but less than 100kVA three phase connection	
Inverter greater than 100kVA but less than 950kVA three phase connection	

Any other (Please specify)

New or additional Generation
(Specify details if existing Generation exist**)**

Any existing generation at site	**Yes/No**	

Existing Generation (Specify details)

PV panel details:

Manufacturer	
Type	
Number of panels	
Power output per panel	
Output voltage	
String Output	

Preliminary Design
(To be attached)

Design overview and documentation including but not limited to Single Line Diagram, major components, proposed point of common coupling, isolating and interfacing devices, with City Power's electrical network, invertor type test certificates (as applicable), protection schemes, consumer network, metering arrangement and operating Characteristics.

Earthing arrangements .i.e. TN-C-S	

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Network Connection Point MV/LV?
Isolation point to be used to Connect/disconnect Embedded Generation (EG) from the distribution network. Show in Single Line Diagram

Electrical Protection Details:
(Attach details as Applicable)

Method of grid synchronization: (Auto/Manual, make and Type of relay etc)

Method of anti-islanding: (Details of scheme, relays to be used etc)

Any other protection to be applied (O/C,E/F, over/under Voltage over/under frequency, reverse power, back-up impedance, generator transformer back-up earth fault, HV breaker fail, HV breaker pole disagreement etc.)

Current Average Monthly Energy Consumption:

WINTER		SUMMER	
	kWh		kWh

Proposed Total Monthly Energy Generation:

TOTAL (Own plus Export)		EXPORT	
	kWh		kWh

Proposed/Expected Export (kWh as per day and time of use**)**

Weekday	
Saturday	
Sunday	

Attachments
(Tick appropriate box or mark not applicable)

Inverter Type Test Certificate	
Single Line Diagram	
Operational philosophy and maintence procedure	
Design / Drawings	
Site Plan/Layout	
Energy storage component details (if any)	

Other attachments (Please specify)

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Supplier / Installer Details

Installing Company	
Responsible Person	
Accreditation / Qualification	
ECSA Professional Registration Category and Reg No.	
Address	
Telephone no (office)	
Telephone no (mobile)	
Facsimile	
Email	

Compliance to Regulatory Approvals and Normative References:
(Tick appropriate box or mark Not applicable**)**

Electricity Regulation Act, Act 4 of 2006 and Electricity Regulation Amendment Act, Act 28 of 2007	
Occupational Health & Safety Act, No. 85 of 1993 as amended	
South African Distribution Code (all parts)	
South African Grid Code (all parts) for Embedded Generation	
South African Renewable Power Plants Grid Code	
Municipality Electricity Supply By-Law	
SANS 10142 – Parts 1 to 3: The wiring of premises (as amended and published)	
NRS 048: Electricity Supply – Quality of Supply	
NRS 097-1: Code of Practice for the interconnection of embedded generation to electricity distribution networks: Part 1 MV and HV	
NRS 097-2: Grid interconnection of embedded generation: Part 2: Small scale embedded generation	

NERSA license

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

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I hereby declare that all the information contained in this application is true and correct.

APPLICANT:

Signature _____

Responsible Person

ECSA Category

ECSA Registration No.

Date

PROPERTY OWNER:

Signed _____

Date

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DECLERATION FORM

The applicant hereby acknowledges		
The applicant shall be liable to pay any network study charges and/or once-off connection charges (as incurred by City Power)		
The regulator's (NERSA) determinations with regards to tariffs are binding on all parties that use the distribution network for supply, load balancing and Grid back-up.		
City Power reserves the right to apply and recover all tariff charges from the effective date as approved by NERSA		
City Power reserves the right to alter the tariff in the event the Grid is purely used as a power supply backup option as approved by NERSA		
Name:	Date:	Signature:
Company Name:	Reg. No.	

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FOR OFFICE USE

Date Application Received:		**Application Reference No:**	
Acknowledgement Provided:	YES / NO	**Date Received:**	
Further Information Required:	YES / NO	**Date Received:**	
Copy to Metering:	YES / NO	**Date Complete**	
Copy to System Control:	YES / NO	**Date Complete**	

Site investigation details(To be completed by Technology, Planning and Asset Management Departments)

Primary Substation											**Size of MV cable**	
Name of Distributor												
Maximum Demand												
Size of Mini Sub (kVA) or Dx. transformer	200		300		315		500		630		1000	
Type of Mini Sub A/B												
Primary voltage (kV)	11										6.6	
LV protection @Mini Sub	Fuses										MCCB	
Current Rating	Fuses										MCCB	
LV distributor	Underground										Overhead	

Overhead:

Type and size of conductor

No. of customers connected