nelson mandela bay MUNICIPALITY
PORT ELIZABETH | UITENHAGE | DESPATCH

ELECTRICITY AND ENERGY DIRECTORATE

APPLICATION FOR THE CONNECTION OF SMALL SCALE EMBEDDED GENERATION (SSEG)

Erf No	**Northern Region (Dispatch & Uitenhage)** **(041) 994-1268**	**Southern Region (PE & surrounding areas)** **(041) 392-4162**	Register No

Name of Account Holder:	Name :		Title :	
Postal Address: **Account Number:**	Postal Address:		Account Number:	

Contact Details:

	Office	**Mobile**
Telephone number		
Facsimile number		
E-mail address		

Project physical address:	
GPS Co-ordinates:	

Construction Schedule:

Project construction start date	
Projected in-service date of embedded generation	

Mode of Embedded Generation:
(Tick appropriate box)

	Comments	✓
Energy from Embedded Generation to be used within a consumer's electricity network and no excess energy to be exported to the NMBM's electricity distribution network.	No changes to existing metering is required	
Energy from Embedded Generation to be used within a consumer's electricity network and excess to be exported to the NMBM's electricity distribution network	Net Metering Provided by NMBM	
Energy from Embedded Generation to be used solely for exporting to the NMBM's electricity distribution network	Not Applicable For later use	N/A
Energy from Embedded Generation to be used solely for wheeling to a third party through the NMBM's electricity distribution network	Metering to be Provided by approved third party vendor	

Energy Source for Embedded Generation: e.g. Coal, Gas, Biogas, Hydro, Wind, Photo-Voltaic, etc.		
Site Plan:	Attach Site Plan to show position of Embedded Generation	
Land Use Zoning:		
Preliminary design:	Attach circuit diagram and design showing generators, transformers, proposed point of common coupling, isolating and interfacing devices with Nelson Mandela Bay Municipality's electrical network, protection schemes, consumer network, operating characteristics, Earthing arrangements etc.	
Total Capacity of Embedded Generation (kVA and PF): (Attach schedule for each unit if more than One generation unit and location)		
Total Capacity of Energy Storage: (e.g the quantity of back-up batteries and total capacity in watthours)		
Total Export Generation Capacity (kVA and PF): (Maximum power intended for export into Nelson Mandela Bay Municipality's electricity distribution network)		
Make and model of generating/ Converter unit:		
Electrical Parameters of Generator and unit transformers		
Protection Details:	Method of synchronising: (Auto/Manual, make and type of Relay etc.)	
	Method of anti-islanding: (Details of scheme, relays to be used, etc.)	
	Method of generator control: (AVR, speed, power, PF, excitation System requirements etc. relays To be used)	
	Other main 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.)	

Recording of Quality of Supply Devices	

Has a Power Purchase Agreement Been entered into with a Third Party (Required before Connection to Distribution System (If YES, supply details)	✓	
	Yes	
	No	

		TOTAL		EXPORT	
Proposed Generation Power Level: (Periods defined by Eskom's Megaflex Tariff))	Peak Periods		kW		kW
	Standard Periods		kW		kW
	Off-Peak Periods		kW		kW
Proposed Total Monthly Energy Generation:			kW		KW

Has Incentive Capital Funding been obtained for this installation: (State source(s) and amount)	
Has a Subsidy been granted for Production of energy from this Installation: (State source(s) and amount)	

List of Regulatory Approvals, Requirements and Normative References: (Tick appropriate box or mark N/A)		✓
	Electricity Regulation Act, Act 4 of 2006 and Electricity Regulation Amendment Act, 2006	
	Department of Environmental Affairs & Tourism in terms of Environmental Conservation Act, No. 73 Of 1989 and National Environmental Management Act, No. 107 of 1998, (as amended)	
	Occupational Health & Safety Act, No. 85 of 1993 as amended	
	Compulsory Specifications Act, No. 5 of 2008	
	South African Distribution Code (all parts)	
	South African Grid Code (all parts)	
	Nelson Mandela Bay Municipal By-laws	
	IEC 60068-2-1 : Environmental Testing – Part 1 Cold	
	IEC 60068-2-1 : Environmental Testing – Part 2 Dry Heat	
	IEC 60068-2-30 : Environmental Testing – Part 30 Damp Heat, cyclic (12h + 12h cycle)	
	IEC 60255-3 : Electrical relays - Part 3 : Single input energizing quantity measuring relays with depend independent time	
	IEC 60255-6 : Electrical relays - Part 6 : Measuring relays with dependent and protection equipment	
	IEC 60255-21 : Electrical relays - Part 21 : Vibration, shock, bump and seismic tests on measuring relays and protection equipment (all sections)	
	IEC 60255-22 : Electrical relays - Part 22 : Electrical disturbance tests for measuring relays and protection equipment (all sections)	
	IEC 61727 : Photovoltaic (PV) systems – Characteristics of the utility interface.	
	IEC 62271 -100 : High voltage alternating current circuit breakers	
	IEC 62116: Test procedure of islanding prevention measures for utility-interconnected photovoltaic inverters	
	IEEE 1547 : IEEE Standard for interconnecting distributed resources with electrical power systems	

IEEE 1547-1: IEEE Standard conformance test procedures for equipment interconnecting Distributed resources with electric power systems	
NRS 031 : Alternating current disconnectors and earthing switches (above 1000V)	
NRS 048-2 : Electricity Supply – Quality of Supply Part 2 : Voltage characteristics, compatibility levels, assessment methods.	
NRS 048-4 : Electricity Supply – Quality of Supply Part 4 : Application guidelines for utilities	
NRS 048-7 : Electricity Supply – Quality of Supply Part 7 : Application practices for end-users	
NRS 057(SANS 474) : Code of Practice for Electricity Metering	
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.	
SANS 1019 : Standard voltages, currents and insulation levels for electricity supply	
SANS IEC 60529 : Degrees of protection provided by enclosures (IP Code)	
SANS IEC 61000-4 : Electromagnetic compatibility (EMC) : Test and measurement techniques (all sections)	

CLEARANCE BY OTHER NELSON MANDELA BAY MUNICIPAL DIRECTORATES

FUNCTION	SECTION	COMMENTS	NAME	SIGNATURE	DATE
Zoning/Subdivision/Building Structure Plans					
Noise Impact assessment and Ventilation					
Air pollution and quality (Fuel burning)					

INSTALLER DETAILS

Installer:				
Accreditation/Qualification:				
Professional Registration:		Reg No.		
Address		Postal Code:		
Contact person:				
Telephone No.:	Office:		Mobile:	
Facsimile:		E-mail address:		

Any other additional information:

I request Nelson Mandela Bay Municipality to proceed with a preliminary review of this embedded generation interconnection application and I agree to pay the cost associated with completing this review and written consent of Nelson Mandela Bay Municipality.

I further consent to Nelson Mandela Bay Municipality providing this information to the National Electricity Regulator of SA (NERSA) and other Distributors as required.

I declare that this installation has been designed to comply with the requirements of Nelson Mandela Bay Municipality's Electricity and Energy Services.

Application Competed By:	Name:	Title:

Professional Registration category: (Pr Eng or PR Tech Eng)		Reg No.	

Signed (Applicant): _____

Date: _____

Signed (Business Partner): _____

Date: _____

COMMENTS: NELSON MANDELA BAY MUNICIPALITY – ELECTRICITY & ENERGY DIRECTORATE

A representative of Nelson Mandela Bay Municipality, Electricity & Energy Directorate will wish to witness the Commissioning and installation notices on the circuits when generation is present	YES / NO
As representative of Nelson Mandela Bay Municipality, Electricity & Energy Directorate, I hereby provide permission In principle for the embedded generation units.	YES / NO
Comments:	

_____ Director: Electricity & Energy Distribution Sub-Directorate	Contact:	Date:

FOR OFFICE USE

Date Application Received:		**Application Reference No.**	
Further Information Required:	YES / NO	**Date Received:**	
NMBM Net Metering with modem Required:	YES / NO	**Single/Three Phase:**	
With web site access Required:	YES / NO	**Direct connect/CT Metering:**	
Approved in Principal	YES / NO	**Date Applicant Advised:**	
??????????:	YES / NO	**Date Complete:**	
??????????:	YES / NO	**Date Complete:**	

File : M/Data/Elecgen/Distsec/Templates/Application Form – Embedded Generation