

Distributed Generator Applicant – Owner of the Distributed Generation Equipment			
Surname:		First Name:	
Company:			
Postal Address:			
Phone:		Email:	

Address Where Distributed Generation is to be Connected – If different from owner's address			
Surname:		First Name:	
Company:			
Street Address:			
Phone:		Email:	

Details of Premises			
Connection Type:	<input type="checkbox"/> New Premises Connection with Generation – <i>An application for the new connection must also be lodged</i>		
	<input type="checkbox"/> New Generation in an Existing Premises	ICP Number:	
	<input type="checkbox"/> Adding further Generation to an Existing Premises		
	<input type="checkbox"/> Alteration to Existing Generation – <i>Provide details</i>		
Notes:			
Premises Type:	<input type="checkbox"/> Residential	<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial
Energy Retailer:			
Proposed Date to Complete Generation Installation:			

Summary of Total Generation				
Connection Phases:	<input type="checkbox"/> One <input type="checkbox"/> Two <input type="checkbox"/> Three	Volts:	<input type="checkbox"/> 230/400V	<input type="checkbox"/> > 230/400v Please specify
Overall Generation System Output:	Amps:	kVA:	kW:	
Input Source/s:	<input type="checkbox"/> Solar <input type="checkbox"/> Wind <input type="checkbox"/> Hydro <input type="checkbox"/> Bio-Mass <input type="checkbox"/> Liquid Fuel <input type="checkbox"/> Geothermal <input type="checkbox"/> Natural Gas			
	<input type="checkbox"/> Wave <input type="checkbox"/> Tidal <input type="checkbox"/> Industrial Process <input type="checkbox"/> Battery <input type="checkbox"/> Other – <i>Specify:</i>			
Please provide details for each different Inverter Type on “Distributed Generation System Equipment Details” page.				

Generation System Installer – The person who will connect the generation equipment to the switchboard			
Surname:		First Name:	
Company:			
Postal Address:			
Phone:		Email:	

POWERNET DISTRIBUTED GENERATION COMMISSIONING CHECKLIST FOR SYSTEMS LESS THAN 10KW

This procedure applies to Generation Systems up to 10kW where an Electronic Inverter/Controller achieves synchronisation. The installing electrician must perform the commissioning process. The installing electrician must also carry out all steps in the order listed, and confirmed by tick against each item. The completed form must be included with the returned completion documents

1. Installation

- 1.1. Confirm generator and inverter equipment installation completed and all labels in place in compliance with AS4777
- 1.2. Supply Certificate of Compliance Number: _____
- 1.3. Confirm Import/export meter installed and certified as per electricity governance rules
- 1.4. Confirm Inverter setting as per AM-STD-0007 and fill in the white boxes.

Table 1: Inverter Protection Setting Checklist

Parameter	Prescribed limit	Applicant's limit	Prescribed minimum trip delay time (s)	Applicant's min trip delay time (s)	Prescribed max disconnection (trip) time (s)	Applicant's max disconnection(trip) time (s)
$V_{\text{non-max}}$ (10 minute average)	248 V					
Overvoltage 1	260 V		1.0		2.0	
Overvoltage 2	265 V		-		0.2	
Under voltage	180 V		1.0		2.0	
Under-frequency	45 Hz		1.0		2.0	
Over-frequency	52 Hz		-		0.2	
Minimum reconnection time	60 s					

Table 2: Inverter Response Mode Checklist

Response Mode	Available	Enabled
Volt-VAr	<input type="checkbox"/>	<input type="checkbox"/>
Volt-Watt	<input type="checkbox"/>	<input type="checkbox"/>

Table 3: Volt Response Capability Checklist

Reference	Volt-VAr (V)		Volt-Watt (V)	
	Prescribed	Apply	Prescribed	Apply
V ₁	207		207	
V ₂	220		220	
V ₃	235		244	
V ₄	244		246	

2. Generator Testing

- 2.1. Confirm Inverter 230V AC isolator is open (inverter is isolated from the grid)
- 2.2. Start generator
- 2.3. Test/confirm generation primary voltage present at inverter input
- 2.4. Test/confirm **no** 230V AC voltage present at inverter output

3. Network Synchronisation

- 3.1. Confirm Generator operating as at conclusion of Section 2
- 3.2. Close 230V AC isolator to connect inverter to the Grid.
- 3.3. Confirm No adverse behaviour from inverter
- 3.4. Confirm 230V AC present at inverter output (inverter is synchronised)
- 3.5. Confirm 230V AC output current from inverter

4. Import/Export

- 4.1. Adjust load within premises to be in excess of generation output
- 4.2. Confirm meter indicates power flow from grid into premises – import
- 4.3. Adjust load within premises to be less than generation output
- 4.4. Confirm Meter indicates power flow from premises to grid - export

5. Loss of Grid

- 5.1. Confirm Inverter synchronised and premises under normal operating conditions/load
- 5.2. Open premises main switch to disconnect premises from the grid
- 5.3. Confirm no adverse behaviour from the inverter
- 5.4. Test/confirm **no** 230V AC voltage present at inverter output
- 5.5. Test/confirm generation primary voltage still present at inverter output

Electrician Name/Company: Signature: Date: (DD/MM/YYYY):
