

# FORM NC6

MICROGENERATION NOTIFICATION
This form caters for New Micro-Generation units proposed for installation and for
EN50438 and EN50549 units installed pre- Jan 28th 2022

ESB Networks DAC requires the information requested on this notification form to manage your electricity supply connection. As the Distribution System Operator, this information is also

FOR OFFICIAL U	
Planner group:	
DUOS group:	
Supplier:	

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Do not leave any section blank; N/A to be used if it doesn'	t apply.	Supplier:		
1. CUSTOMER'S FULL NAME AND SITE ADDRESS FOR MICRO-GENERATION INSTALLATION				
Landline: Mobile number:  The Customer's email address is required to send a confirmation email.				
Email:		s аррисанон		
2. MPRN NUMBER FOR MICRO-GENERATION INSTALLAT	ION			
Please provide 11 digit MPRN no:	Eirco	de:		Yes No
MPRN must be registered in Applicant's Name. If not please con	tact your supp	lier to change.		
Is this the first Micro-generator connection at these premises?				
If No please do not connect any Micro-Generation until confirma	tion received f	rom ESB Networks.		
3. INSTALLER / CONSULTANT NAME AND CORRESPONDE	NCE DETAILS	S		
Landline: Mobile number:	:			
4. SITE MICRO-GENERATION DATA				
Please tick the box applicable to your Installation and continue a	as outlined			
New Micro-generation unit proposed for installation - EN50549.  Please complete Section 5 & 5A, attaching the Type Test Cert and M		=	inverter	
Micro-generation installed prior to January 28th, 2022 – EN 50549 Please complete Section 5 & 5B, attaching the Type Test Cert and M			inverter	
Micro-generation installed prior to Jan 28th, 2022 – EN 50438 (Settings set by Manufacturer)  Please complete Section 5 and 5C, attaching the Type Test Cert and Manufacturers Data Sheet relating to each inverter				
5. MICROGENERATION DETAILS				
	Existing Instal	lation (Where Applicable)	New In	stallation

	Existing Installation (Where Applicable)		New Installation	
	Total Installed Capacity (TIC) kVA (TIC = MEC kVA)		Unit 1	Unit 2
Single Phase / 3 Phase	1PH 3PH	1PH 3PH	1PH 3PH	1PH 3PH
Energy Source (Wind (W)/ PV (P) / Hydro (H) / CHP (C) / Battery (B) / Other (O))				
Manufacturer				
Manufacturer's Reference No. / Model				
Inverter Capacity (kVA)				
Rated Current (Amps) as per Type Test (not to exceed 25A on Single Phase equipment or 16A/phase on three phase equipment)				
Generator (kVA) installed behind each inverter				
Storage (kVA) installed behind each inverter				
Will interface have type test certification as per Conditions Governing the Connection and Operation of Microgeneration - DTIS-230206-BRL?	Yes No	Yes No	Yes No	Yes No
Will interface have settings* installed as per Conditions Governing the Connection and Operation of Microgeneration - DTIS-230206-BRL?	Yes No	Yes No	Yes No	Yes No

5A. MICRO-GENERATION PROPOSED FOR INSTALLATION AFTER JANUARY 28TH, 2022. – EN 50549 (see Table 1 for Protection Settings). Please attach Type Test Cert				
Microgenerator Manufacturer: Model No:				
Corresponding Type Test Certificate Referencing above Unit:				
Single/Three Phase: Single: Three:				
The Protection Settings listed should be set on the unit either <b>prior to installation</b> or <b>on installation</b> , and should be as confirmed by the Safe Electric Installer.				

### TABLE 1: PROTECTION SETTINGS FOR EN 50549 POST JANUARY 28TH, 2022.

Parameter		Trip setting	Clearance time	Confirm Settings Applied (Y/N)	
Over Voltage					
Pre I.S EN 50549-1 Single Stage Voltage Setting		269 V / 468 V	0.7 s		
I.S. EN 50549-1 Two Stage Voltage Settings	Stage 1	269 V / 468 V	70 s		
	Stage 2	281 V / 488 V	0.7 s		
Under voltage		191 V / 332 V	0.7 s		
Over frequency*		52 Hz	0.5 s		
Under frequency*		47 Hz	0.5 s		
An explicit Loss of Mains functionality shall be included. Established methods such as, but not limited to, Rate of Change of Frequency, or Source Impedance Measurement may be used. Where Source Impedance is measured, this shall be achieved by purely passive means. Any implementation which involves the injection of pulses onto the DSO network, shall not be permitted.					
ROCOF (**)		1.0 Hz/s	0.6 s		
Vector Shift		Not permitted			

- (\*) For relays that have a setting step of 0.1Hz then the frequency should be set to 52.1Hz and 46.9Hz receptively.
- (\*\*) reset interval should be set to >0.6 seconds to detect step changes

### Important Note:

- > No deviations from the protection settings in the above Table shall be allowed without permission in writing from ESB Networks.
- > If a deviation exists, please provide correspondence from ESB Networks confirming acceptance of this deviation to networkservicesbureau@esb.ie

Details of the Generator interface protection settings installed are as per those applicable in the Conditions Governing the Connection and Operation of Micro-Generation (DTIS-230206-BRL) current at date of application, and the actual settings installed on the Micro-Generator are as listed above.



If a deviation exists for which no permission from ESB Networks had been granted, the installation shall be disconnected immediately, and contact made with ESB Networks to regularise the situation.

### **INSTALLER DETAILS**

I confirm that the above information is accurate:				
Installer Name:	Installer SafeElectric No.			
Installer Mobile No.	Installer email:			
Installer Address [inc. Eircode]:				
Signature:				
Date:				

5B. MICRO-GENERATION INSTALLED PRE JANUARY 28TH 2022 - EN 50549.  Protection Settings set by Installer in compliance with applicable ESBN "Conditions Governing the Connection and Operation of Micro-Generation (See Table 2 for applicable Protection Settings) Please attach Type Test Cert.				
Microgenerator Manufacturer:				
Corresponding Type Test Certificate Referencing above Unit:				
Single/Three Phase: Single: Three:				
I confirm that the Micro-Generator installed at the above address was installed in compliance with applicable ESBN "Conditions Governing the Connections and Operation of Micro-Generation", wired in accordance with applicable NSAI Wiring Regulations by Safe Electric Installer, has the above Serial Number, has been Type Tested as per the attached Type Test Cert and that I have verified that the Protection Settings installed on the Unit are as per the settings for pre -2022 installations detailed in Table 2 below.				
Installer Name:	Installer SafeElectric No.			
Installer Mobile No.	Installer email:			
Installer Address [inc. Eircode]:				
Signature:				
Date:				
5C. MICRO-GENERATION INSTALLED PRE JANUARY 28TH 2022 Protection Settings installed by Manufacturer. (See Table 2 below for ap				
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## TABLE 2: PROTECTION SETTINGS FOR EN 50549 PRE JANUARY 28TH 2022 (SET BY INSTALLER) AND EN 50438 (PRE-SET BY MANUFACTURER)

Parameter	Trip setting	Clearance time
Over voltage	230 V + 10%	0.5 s
Under voltage	230V - 10%	0.5 s
Over frequency (*)	52 Hz	0.5 s
Under frequency (*)	47 Hz	20 s

An explicit Loss of Mains functionality must be included. Established methods such as, but not limited to, Rate of Change of Frequency (ROCOF), Vector Shift or Source Impedance Measurement may be used. Where Source Impedance is measured, this must be achieved by purely passive means. Any implementation which involves the injection of pulses onto the DSO network, shall not be permitted.

ROCOF (where used) (**)	1.0 Hz/s	0.6 s
Vector Shift (where used)	6 degrees	0.5 s

### Where available

- (\*) For relays that have a setting step of 0.1Hz then the frequency should be set to 52.1Hz and 46.9Hz respectively.
- (\*\*) Reset interval should be set to >0.6 seconds to detect step change

### Important Note:

- > No deviations from the protection settings in the above Table shall be allowed without permission in writing from ESB Networks.
- > If a deviation exists, please provide correspondence from ESB Networks confirming acceptance of this deviation to networkservicesbureau@esb.ie

Details of the Generator interface protection settings installed are as per those applicable in the Conditions Governing the Connection and Operation of Micro-Generation (DTIS-230206-BRL) current at date of application, and the actual settings installed on the Micro-Generator are as listed above.

### **6. DATA PROTECTION**

ESB Networks DAC may use your personal data to the extent necessary (a) to set up and manage your connection agreement (b) for compliance with its licence and other legal obligations; and/or (c) for its legitimate interests (provided those interests do not conflict with your fundamental rights and freedoms) Personal data provided by you in this application form may be disclosed to other parties in the following circumstances:

- In performing its functions, ESB Networks DAC may utilise the services of contractors or other suppliers. ESB Networks DAC may disclose your data
  to these parties to the extent necessary to perform their functions and provided they are only permitted to use your data as instructed by ESB Networks
  DAC. They are also required to keep your data safe and secure.
- ESB Networks DAC may make available the existence, location and/or technical aspects of your connection to licensed electricity supply companies and other parties involved in your electricity supply. In the case of new connections, ESB Networks DAC will make available your telephone contact number to licensed electricity supply companies in order to facilitate energisation of the connection.
- ESB Networks DAC may be required by law, or our license obligations, to provide data that ESB Networks DAC holds about you, your electricity supply or connection, to government agencies or departments, the Commission for Regulation of Utilities or other third parties.
- Contact details may also be provided to a professional third party market research company for the purposes of researching your satisfaction with the services provided by ESB Networks DAC. This information may also be used to enhance our services as the Distribution System Operator.

### PLEASE RETURN FORM TO

networkservicesbureau@esb.ie or ESB Networks DAC, NC6 Microgen Notifications, New Connections, Sarsfield Road, Wilton, Cork T12E 367

