



Safe Electric, the statutory regulatory scheme for electrical contractors is operated by the Register of Electrical Contractors of Ireland (RECI) on behalf of the Commission for Regulation of Utilities (CRU).

RECI was appointed as a Safety Supervisory Body by the CRU and will operate on a not-for-profit basis under the CRU's Safe Electric brand for the duration of their appointment, 2016 – 2022

2022

# SAFE ELECTRIC April NEWSLETTER

# Contents

1. Inspection Manager Report
2. Interim Certificate Up and Running
3. Disciplinary Updates
4. No. 3 (CR) Certificate
5. Qualified Certifier Numbers
6. Criteria for Validation of Type 1 AR
8. Safe Electric Logo
9. Revised Inspector Map
10. Wiring Rules 5th Edition IS 10101 On Track
11. New Edition of ESB Networks Customer Interface
12. FAQ
14. Top Non-conformances: Sep 2021 to Jan 2022
15. Important Notice: EV Installations at Meter Cabinets
17. Earthing Systems for Public Lighting to allow upgrades works and certification to IS10101
18. Safe Electric Electronic Completion Certificate (ECC) System  
Important SEAI EV Home Charger
19. EXTRACT FROM CRU Criteria Document outlining the responsibilities of the PDH Page 63

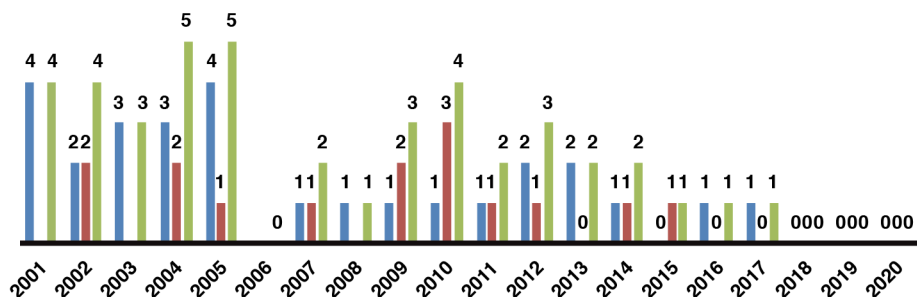
# Inspection Manager Report

It is a credit to the majority of Registered Electrical Contractors that the Safe Electric inspection team is reporting that compliance with the wiring rules and in particular the testing ability of Qualified Certifiers (QCs) has improved dramatically since 2016. While there is further work to be done, this improvement seems to be reflected in the very encouraging decrease in the number Electrical Fatalities reported by the Health & Safety Authority [HERE](#).

Between 2001 and 2015 there were a total 38 Fatalities in Ireland, an average of 2.5 fatalities per year. Since the current single SSB was appointed in 2016, between 2016 and 2020 there were 2 Fatalities, an average of 0.4 fatalities per year. Encouragingly, there were no Fatalities in 2018, 2019, 2020. We believe this improvement is mainly due to the increased awareness by RECs of the correct testing and recording procedures which of course are designed to identify electrical faults which can be present in the background and will go unnoticed if testing is not correctly carried out or not carried out at all. Enhanced testing procedures during Periodic Inspections are also identifying faults in older installations. Many of these faults may have been there from the original construction phase, and not identified due to poor verification and testing practice prior to the installation being put into service.

**Electrical Fatalities  
2001 - 2020**

■ Work  
■ Non Work  
■ Total



It has also been reported that the ESNB smart meter rollout is identifying a substantial number of installations have never been correctly neutralised. For many years it has been the responsibility of the installing REC to make the Neutralising connection and verify this critical safety connection has been correctly made by loop testing. In many installations and installations where additions (Mainly bathroom Shower installations) and alterations have been made, it is clear that even the most basic loop testing had not been carried out.

During all inspections, inspectors will request that sample testing is carried out by the QC. Test results obtained will be expected to confirm test results recorded on the Test Record sheet. If any QC is not able to correctly carry out sample testing, this will be recorded as a non-conformance and the QC should address the matter.

During the 2021 inspection program, inspectors issued a large number of non-conformances for incorrect / inaccurate Test Record Sheets and Tests not being carried out correctly or not at all.

Overall, the progress is very positive, and the inspection team are always available for rule clarification and to help and demonstrate the efficient way of carrying out the various tests.



Safe Electric Newsletter 1

*Dave Butler*

Dave Butler  
Mob: 00353 87 7712113  
Email: [davebutler@reci.ie](mailto:davebutler@reci.ie)  
Safe Electric Inspection Manager



*Example of older installation which doesn't appear to be neutralised, no addition or alteration should be made until this problem is addressed.*

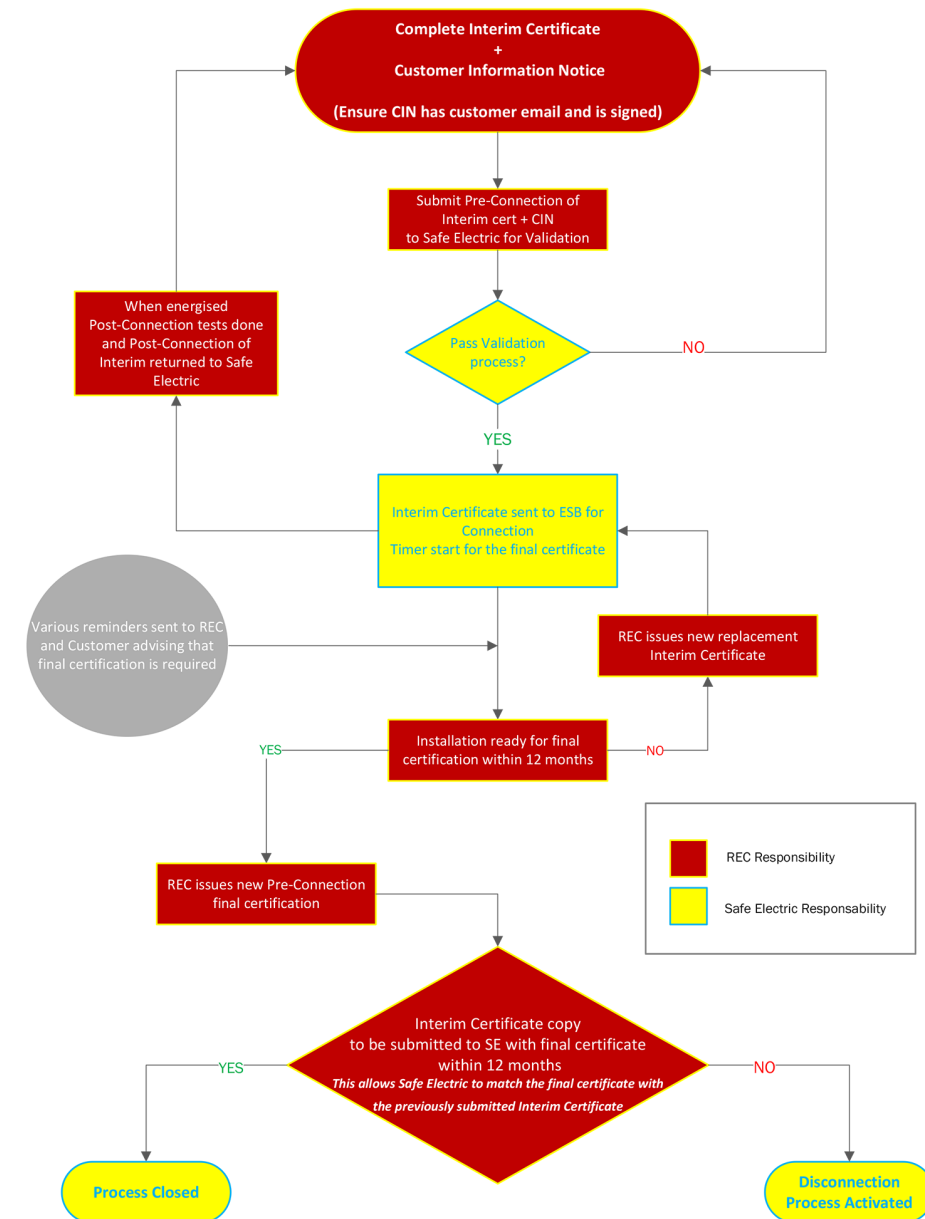
# Interim Certificate Up and Running

While the practice of certifying partially completed installations has greatly diminished, we are still receiving “Completion Certificates” for installations which are not “complete”.

If certification is required for a partially completed installation, to facilitate for example a meter move, an interim certificate should be issued. The operation of this certificate was outlined on Page 3 of our March 2021 Newsletter available [HERE](#). This interim certificate should be accompanied by a completed Customer Information Notice (CIN). The contact details in the CIN allow us to communicate directly with the customer who has signed the notice and therefore is aware that if follow up certification is not received, there will potentially be a disconnection.

The inside cover of the Interim Certificate contains detailed instructions regarding the process. These instructions should be carefully studied by the issuing REC prior to completing or submitting the certificate.

## INTERIM CERTIFICATE PROCESS



Currently we are receiving a substantial number of Interim Certificates which are not accompanied by the Customer Information Notice, or CINs which don't contain the customers contact details. Some RECs are also sending Copy 4, which should only accompany the final replacement certificate, with Copy 3 the post-connection Copy. Copy 4 allows us to link the final certification to the interim certificate and cease the disconnection process. It is vital that when the final certification is submitted with Copy 4 of the Interim Certificate attached. If more time is required to complete the project, another Interim Certificate can be issued. This will cancel the first Interim certificate and allow another 12 months before disconnection.



# Disciplinary Updates

Section C Clause 4.1 of the CRU Electrical Criteria Document outlines the circumstances in which a REC may be subject to Disciplinary Action.

Eleven RECs had disciplinary hearings scheduled in Q3 2021 and the Disciplinary Committee issued sanctions in accordance with Causes 9.2 and 9.3 of Section C. Six of these disciplinaries resulted from complaints from customers, the subsequent complaint inspections identified serious non-conformances with the wiring rules and certification procedures. One REC was before the committee following a reverse polarity incident. In this case the REC installed an EV charger at a meter cabinet and reversed the polarity in the existing installation. No testing was carried out in the existing installation and the polarity was reversed for several months.

Non-conformance with Clause (ii) (d) of section D of the criteria document i.e., Providing Certification for work not done by the REC was the issue for four of the actions. These cases are being identified because of the current practice of certificate-based inspections. In some cases, the Principal Duty Holder was unaware that assigned QCs were issuing certification on behalf of the REC. Some RECs also seem to be allowing their employees to use the company certification for the QCs private work. We have recently come across an incident where a REC provided certification for a large installation without even visiting the site.

In all situations the Principal Duty Holder (PDH) is ultimately responsible for the work certified by the REC. PDHs need to have procedures and controls in place to ensure that completion certificates are only issued for works carried out by the REC. Access to Certificate Books and ECC Passwords need to be tightly controlled.

Sanctions in accordance with Part 9.2 and 9.3 were issued to all RECs who were subject to Disciplinaries. It is noteworthy that the Principal Duty Holder for many RECs at the disciplinary hearings were unaware of the extent of their responsibilities under the scheme.

(Extract from Criteria Document Page 96)

## 4 LIABILITY OF THE REC TO DISCIPLINARY ACTION

4.1 Any REC shall be liable to disciplinary action(s) in accordance with this Section D in any of the following circumstances:

- (i) Furnishing incorrect, misleading or fraudulent information or documentation in an Application for registration to a Body or at any subsequent renewal Application; or
- (ii) Any material breach of the Rules of Registration or any material breach of this Criteria Document, including, but not limited to, the following:
  - (a) any failure to furnish evidence of any mandatory policy of insurance within the period specified by the Body;
  - (b) any failure to carry out work or failure by its employees, servants or agents to carry out work in compliance with the requirements of this Criteria Document;
  - (c) any failure to respond adequately to or at all to correspondence or other communications from the Body, the Commission, an Inspector, a Complaints Officer or from any Disciplinary Body, or failure to cooperate fully with any inquiry or investigation being conducted by or on behalf of the Body;
  - (d) providing a Certificate in respect of a Controlled Work that has not been completed by the REC (except in circumstances so permitted by the Body); and,
  - (e) further to the Performance Marking Scheme (as approved by the Commission and further to the arrangements pursuant to Section B of this Criteria Document).

(Extract from Criteria Document Page 103)

9.2 The standard of proof applicable shall be proof "on the balance of probability". If the Disciplinary Committee makes a finding that the Complaint has been proved or upheld in whole or in part, it may make any one or more of the following Orders as it considers appropriate:

- (i) that the Respondent be reprimanded by way of an oral warning;
- (ii) that the Respondent be reprimanded by way of a written warning;
- (iii) that the Respondent be required to give a written undertaking to the Body on the terms set out by the Disciplinary Committee;
- (iv) suspension of the Respondent's entitlement to self-certify for a defined period and the terms upon which the suspension shall be lifted;
- (v) requirement that the Respondent and any employees undergo training or attend specified courses;
- (vi) requirement that the Respondent be subject to a higher frequency of inspection and any resultant/consequent fees/charges associated with such additional Inspections as the Body/Disciplinary Committee may determine;
- (vii) suspension of the Respondent's Registration for a defined period; and/or,
- (viii) Revocation of the Respondent's Registration with the Body.

9.3 Any other such Order that may be made upon such terms and conditions as decided by the Disciplinary Committee in its absolute discretion considers appropriate.

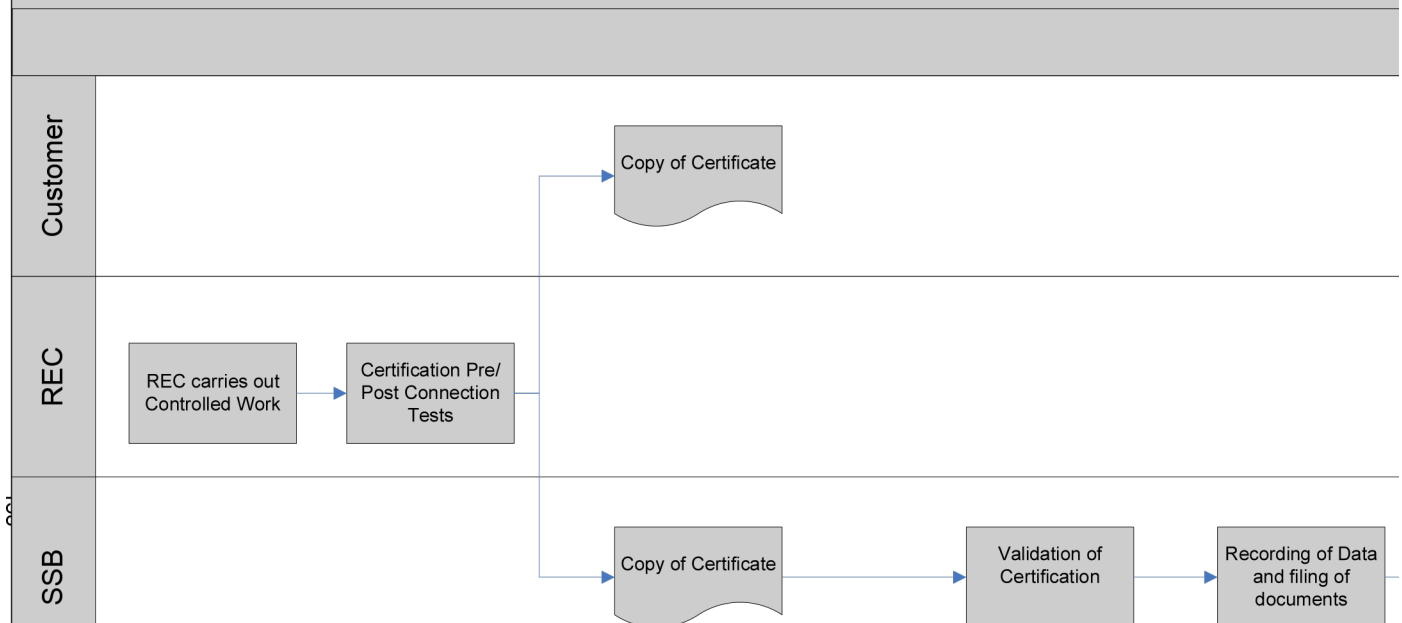
# Number 3 (CR) certificate

All Registered Electrical Contractors are obliged to provide customer certification for all electrical works carried out. This includes "Minor Works" if a certificate is requested by the customer. If there is no ESNB involvement in the job, this certificate will be a number 3 CR Certificate. All certificates have a unique serial number, and our database records the serial numbers of all certificates purchased and assigns that certificate to the REC that bought it.

Upon completion of the number 3 certificate, copy 1 should be provided to the customer and Copy 2 returned to Safe Electric. When received by Safe Electric, the certificate is logged, and the system checks that the certificate was completed for work done by the REC who purchased it. This closes the process. Copy 3 of the certificate is the RECs copy and should be retained in the book.

## Common Procedure No 1: Certification

### Process No 3: Additions / Upgrades by REC – Connection Existing (No DSO involvement)



Safe Electric are finding that many RECs are not returning Copy 2 of the Number 3 Certificate to Safe Electric.

To solve this problem, the following measures are being introduced over the next few months.

- Inspectors will request sight of all un-issued number 3 certificates during inspections, it will be expected that all three copies of un-issued number 3 certificates will be in the certificate book. If the customer copy 1 has been issued and the Copy 2 has not been returned to Safe Electric, an Audit non-conformance will be raised, and the REC will have 30 days to rectify to non-conformance by returning the Safe Electric copy to the office.
- RECs who have large numbers of outstanding number 3 certificates, will not be sold new number 3 certificates pending the return of all Copy 2s outstanding. The logic here is that if the REC required new number 3 certificates, he must have used up all previously purchased certificates.

To avoid future problems, all RECs should urgently return any outstanding number 3 Safe Electric copies they may have omitted to send back.

## Qualified Certifier Numbers

Upon successful completion of a Qualified Certifier Course (QC) a new or revised QC number is issued. This number is issued by the Safety Supervisory Body / Safe Electric and will change every 5 years. We are finding that increasing numbers of attendees who have successfully passed the assessments from the various Qualified Certifier Courses, are showing as QC expired on our database. This potentially has serious implications as the status of the QC signing off the certificates must be valid. Certificates cannot be validated for transmission to ESNB for connection if the QC is expired.

On a number of occasions, we discover that the Electrician showing the expired QC number has in fact attended and passed a QC course, but this information has not been communicated to Safe Electric. Many candidates have also told us they believe the course provider will inform

Safe Electric that the course has been passed. This is not the case and there is currently no arrangement in place with any QC course provider to automatically update the QC status.

When a candidate successfully passes a QC course, they will be issued a letter confirming this. This letter is adequate for Safe Electric to issue a QC number, we do not require the actual certificate from the accrediting body. This letter should be sent by post or email to Safe Electric at either [reciinfo@reci.ie](mailto:reciinfo@reci.ie) or [qcqueries@reci.ie](mailto:qcqueries@reci.ie)

Upon receipt of this letter, we will issue a new QC number which should be used on all certificates from the time of receipt.

### Issue of QC number procedure

- Candidate attends QC course with provider of their choice
- Course assessment at the end of the course
- If successful Course Provider issues confirmation letter to Candidate
- Candidate sends letter to Safe Electric
- Safe Electric issue new / revised QC number, see example below



#### REGISTER OF ELECTRICAL CONTRACTORS OF IRELAND CLG

UNIT 9, KCR INDUSTRIAL ESTATE, RAVENSDALE PARK, KIMMAGE, DUBLIN 12, D12 E968.

PHONE: (01) 492 9966 FAX: (01) 492 9983 e-mail: [reciinfo@reci.ie](mailto:reciinfo@reci.ie) website: [www.safeelectric.ie](http://www.safeelectric.ie) <<http://www.safeelectric.ie>>

~~REDACTED ADDRESS~~

Coill Dubh  
Naas  
Co Kildare

February 17, 2022

Reg.No:

Attn:

Re: QC No **QC15342** Expiry **022027** for Mr **Paddy Sparky**

Dear Sir/Madam,

We are pleased to send you the Qualified Certifier Number (QC No) for Paddy Sparky who has attended and passed an accredited Electrical Testing and Verification of Electrical Installations course with RECI on February 17, 2022.



## CRITERIA FOR VALIDATION OF TYPE 1 AR CERT

In accordance with Clause 2.1.4 of Common Procedure 5 of the CRU Criteria Document and in the interest of public safety and for improved document control, Safe Electric will be implementing a zero-tolerance policy for the validation of completion certificates.

All certificates received or processed on or after 5th July 2021 which are incomplete, illegible, or incorrect have been deemed invalid and marked as such. The Registered Electrical Contractor (REC) will be notified by email that the certificate has been deemed invalid and the REC will be required to issue a replacement certificate.

To minimise the number of certificates that cannot be validated the following are guidelines for completing a Type 1 AR Certificate. Please read these guidelines carefully.

# National Rules for Electrical Installations Completion Certificate for an Installation with a Maximum Import Capacity < 50kVA

MPRN No.

AR

CUSTOMER NAME (Block Capitals): .....

ADDRESS OF INSTALLATION (Block Capitals): .....

PREMISES DESCRIPTION (E.G. SHOP, DOMESTIC, AGRICULTURAL, ETC.) .....

Date of Installation .....

✓ Tick boxes as appropriate:

THIS CERTIFICATE IS IN RESPECT OF:

CONSTRUCTION & TEST OF INSTALLATION ☐

OR TEST ONLY OF THE EXISTING INSTALLATION ☐

TYPE OF INSTALLATION: New ☐

Reconnection ☐

Alteration ☐

Temporary supply ☐

Other ☐

NUMBER OF: Lighting Points

Socket Outlets

Fixed Appliance Outlets

TEST RESULTS

POLARITY AND EARTHING OF ALL

OUTLETS VERIFIED (A TICK INDICATES YES) ☐

MAIN EQUIPOTENTIAL

BONDING VERIFIED FOR: ☐

YES/NA

GAS	
WATER	
OTHER	
Specify your details	

Record the value obtained in either 1 or 2	1. PPM/ΩM RESISTANCE OF PHASE AND PROTECTIVE CONDUCTOR (By + line)	<input type="text"/>
	2. PPM/ΩM RESISTANCE OF PROTECTIVE CONDUCTOR line	<input type="text"/>

INSULATION RESISTANCE

(min)

DETAILS OF TESTS ETC., ARE GIVEN IN TEST RECORD SHEET NO. ....

↑ See Chapter 63 "National Rules (ET101)"

Associate Sub System Certificate Numbers Yes\* ☐ No ☐

↑ NA means Not Applicable

\*See comment box for details

ALL NEW WORK MUST BE CERTIFIED IN RESPECT OF CONSTRUCTION & TESTING

COMMENT OR DETAILS:

REGISTERED CONTRACTOR (Block Capitals)

Name: .....

Address: .....

Tel: .....

Safe Electric Reg No.

CERTIFICATION

I certify that the electrical installation at the above address has been constructed, and/or pre-connection tests have been carried out, in accordance with the National Rules for Electrical Installations (current issue at date of contract) and has been found to be satisfactory. Test Record Sheets are held by me.

PRE-CONNECTION

Pre-connection tests completed and found to be satisfactory

Signed: .....

For Electrical Installation: Constructor ☐

Tester ☐

Qualification: .....

Certifier's No. ....

Date: .....

MAX FAULT LOOP IMPEDANCE

Ω

RATING & TYPE OF THE ASSOCIATED PROTECTIVE DEVICE

OPERATION OF ALL RCDS VERIFIED ☐

RCD Circuit Description

N.B. THESE TESTS MUST BE COMPLETED

IMMEDIATELY AFTER SUPPLY IS MADE AVAILABLE

Insert the line value of the RCD (mA)

mA

Max Trip Time of RCD 1 s

Max Trip Time of RCD 1 s

POST-CONNECTION Post connection tests completed and found to be satisfactory

Signed: .....

For Electrical Installation: Constructor ☐

Tester ☐

Qualification: .....

Certifier's No. ....

Date: .....

NOTE: This certificate is issued and signed by the person responsible for the constructing and testing, or testing only of the installation or a person duly authorised. This certificate should be used only for installations with a maximum import capacity < 50kVA. A different certificate is required for other installations.

This Document is a certificate for the purpose of the Energy (Miscellaneous Provisions) Act 2006.

The CEI or Safe Electric are not responsible for the electrical installation or for the accuracy of the information given on this certificate. Electrical installations should be inspected periodically.

© CEI 2016. This document should not be reproduced in any form or manner without the expressed permission of the Commission for Energy Regulation.



Additional information:

- For BR certs only, you must enter the Maximum Import Capacity of the installation in the field provided near the top right of the cert.
- **Safe Electric will only accept pre connection certs on the pre connection page for the cert – do not send in pre connection results on the Post Connection, Contractor's Record or Customer Copy or they will fail validation.**
- Your subs must have been paid for the current year and you must have valid insurance on the date that the cert is being validated.
- In the case of the REC having outstanding Post Connections which need to be cleared, pre connection certificates which are not otherwise invalid will be retained until the REC has cleared the Post Connections.

FAILURE TO COMPLETE ALL OF THE FOLLOWING CORRECTLY WILL RESULT IN THE CERT FAILING VALIDATION		
1.	MPRN	The MPRN has 11 digits and always starts with 10. Please check with your customer to ensure you have the correct MPRN <b>before</b> submitting the cert as <b>an invalid or terminated MPRN will cause the cert to fail validation.</b>
2.	Name and address	Enter the correct name and address, these must match the details the ESB have on file. Pay particular attention to entering flat or shop unit numbers if applicable, or letters (e.g., 25a) and entering the correct townland on certs in rural areas.
3.	Date of Installation	This is the date the original installation for the property was put in place. If you do not know the date enter an estimate, do not leave blank.
4.	Construction & Test/Test Only	Use Test Only for a Reconnection with no remedial work required or for a Change of Contractor where no remedial work was required. In all other cases use Construction & Test. <b>Certs marked 'Test Only' and 'Alteration' will fail validation as these are contradictory.</b>
5.	Type of installation	Only one should be ticked. If the cert covers a Change of Contractor, tick Other. If a reconnection, tick Reconnection.
6.	Fixtures	Each box must have a number (including 0 if applicable) or N/A entered, do not leave any of the three boxes blank.
7.	Polarity & Earthing	Must be ticked, all electrical installations require a polarity test.
8.	Rp+Re or Re	A value must be entered in at least one of these boxes.
9.	Bonding	For Gas and Water, either Yes or N/A must be ticked, do not leave these rows blank, if 'Other' bonding was carried out, tick this row and specify.
10.	Insulation Resistance	A value must be entered in this box. This value must be compliant with the minimum requirement in part 6 of the <i>Wiring Rules</i> .
11.	Associate Sub System Certificates	One of these boxes must be ticked. If you tick 'Yes' you must enter details in the Comments box.
12.	Test Record Sheet	Enter the Test Record Sheet number.
13.	Comments	Enter any comments necessary which will help us verify the cert. Comments entered in this box are not seen by ESNB.
14.	Registered Contractor	<b>This box must be completed, and these details must match what we have on file for your number. If you are registered under a company name do not enter your own name in this box or the cert will fail validation.</b>
15.	Pre-Connection Test	This box must be signed by you. You must enter your current QC number and must enter the date the pre-tests were carried out. This date is required by ESNB to be within six months of the date the cert is being validated by Safe Electric. Tick Constructor and/or Tester boxes as required.

# SAFE ELECTRIC LOGO

To improve the ability of customers to identify individual Registered Electrical Contractors, and to more quickly recognise unlawful use of the brand, Clause 2.2.3 of Section C of the criteria document requires that all RECs who identify themselves as members of the Safe Electric Scheme, include their membership number in the logo. All membership numbers begin with A and have either 4 or 5 digits.

We are investigating the possibility of providing RECs with a standard electronic file version of the logo with their membership number included. This could then be provided to stationary providers for letterheads etc. and sign-writers etc for use on Vans etc. Please keep this in mind if ordering any new printing or getting vans branded. Remember, you are not obliged to get your vans branded, but any Registered Electrical Contractor, who advertises himself as an Electrical Contractor, is obliged to use the Safe Electric Logo.

(Extract from page 69 of the CRU Criteria Document)

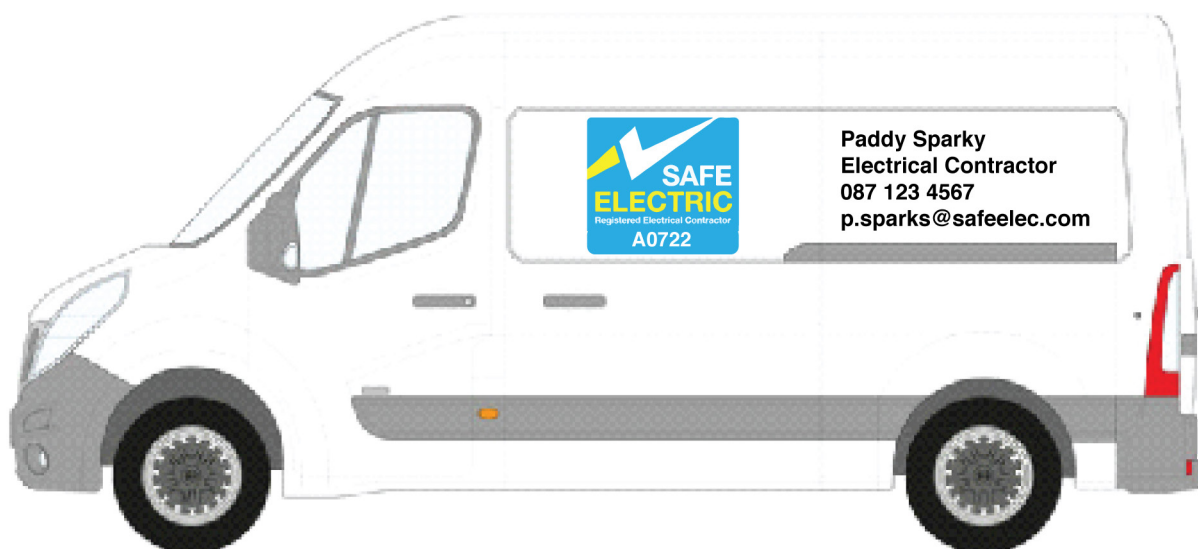
## 2.2 Entitlement to use title of “Registered Electrical Contractor”, the Brand and Name/Logo/Brand of the Body

- 2.2.1 Only RECs are entitled to use the title “Registered Electrical Contractor”.
- 2.2.2 An REC is entitled to use the logo of the Body and the Brand on business documentation and/or vehicles.
- 2.2.3 An REC is required, at all times, to present/detail its Registration Number on Business Documentation where it presents itself as a Registered Electrical Contractor and/or uses the name and logo of the Body or the Brand.
- 2.2.4 An REC is required to furnish, to any party, confirmation of its Registration and Registration details upon the request of any such party. Such confirmation is to be in the form specified by the Body.

Conversely, it is unlawful for persons who are not Registered Electrical Contractors to use the Safe Electrical Logo. CRU have recently secured a prosecution against a property management company who used the Safe Electric Logo on their Van. The Company was fined €1500 and €1500 costs were awarded to CRU. Please report any illegal use of the logo.



The ideal situation would be that members of the public would recognise that if an Electrical Contractor is not displaying the SAFE ELECTRIC brand / Logo, they are not a Registered Electrical Contractor. The industry can achieve this by increasing use of the logo, reporting to CRU the unlawful use of the Logo, thereby increasing public awareness that only Contractors who display the SAFE ELECTRIC logo are registered.

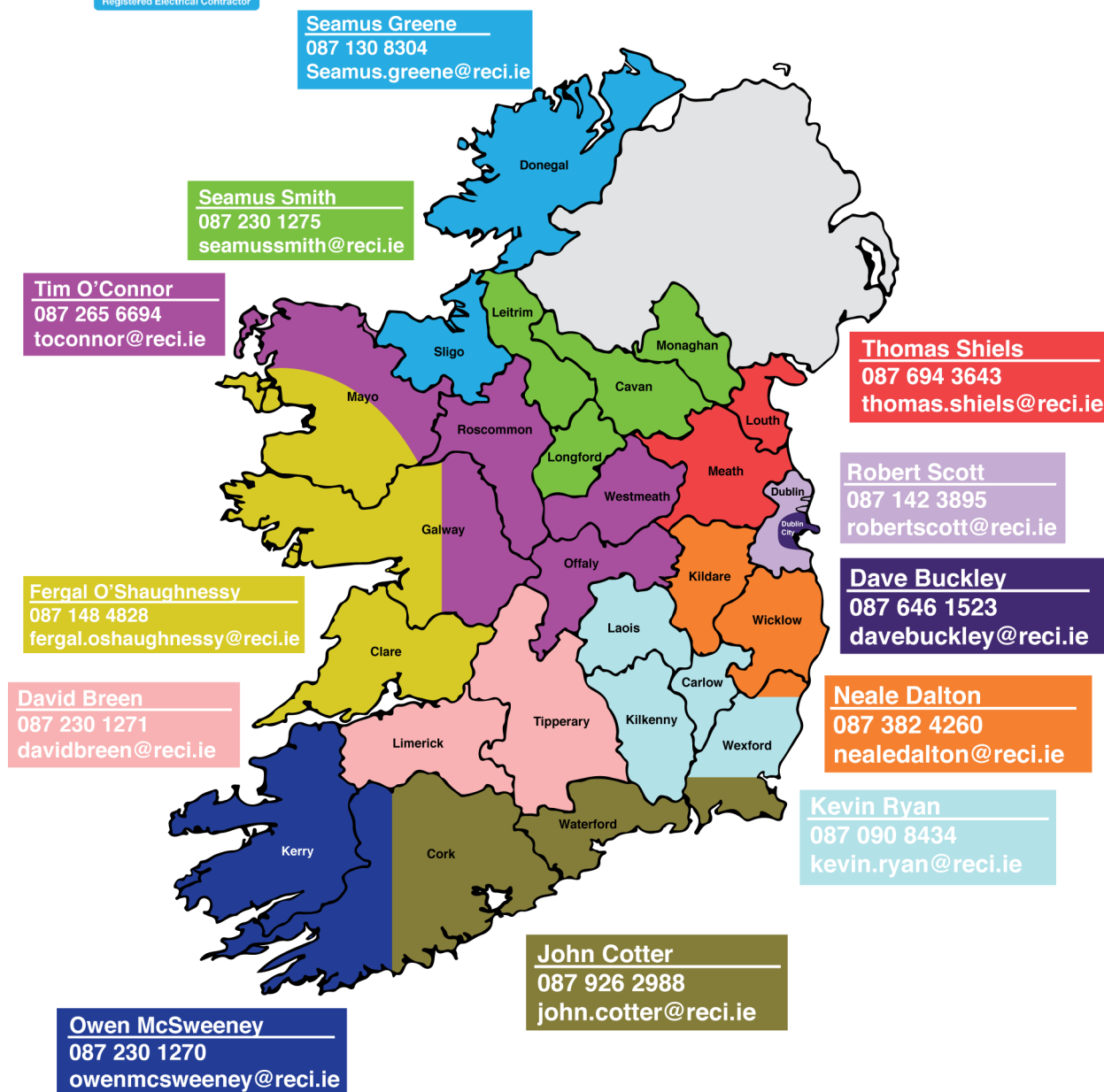


# Revised Inspector Map

We have developed a revised map to generally indicate which inspectors are assigned in different parts of the country. Each inspector looks after approx 320 RECs. Inspectors are happy to answer queries and provide advice but remember they will not be able to answer the phone while carrying out inspections. Queries can be submitted in writing by email directly to inspectors or to:  
[technicalqueries@reci.ie](mailto:technicalqueries@reci.ie).



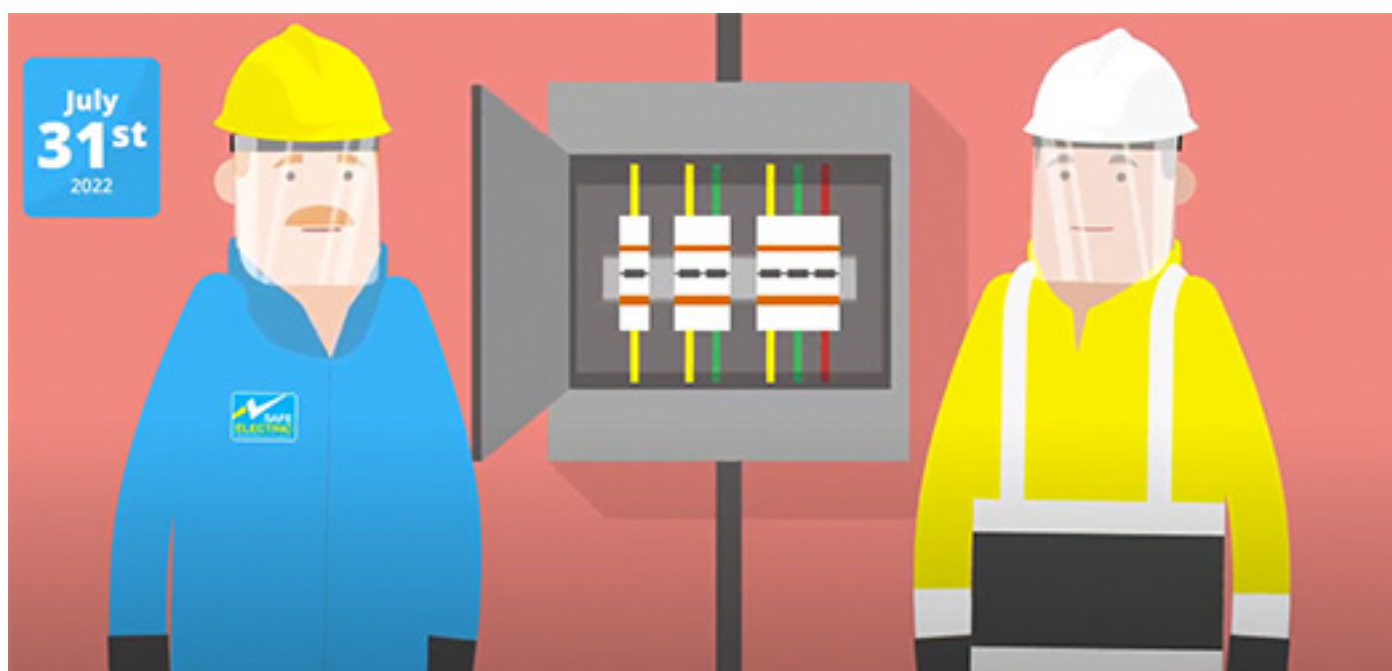
## Inspector Areas



This is a general representation of assigned inspectors.  
Some Registered Electrical Contractors may find their assigned inspector is different to the one indicated on the map.  
Email [reciinfo@reci.ie](mailto:reciinfo@reci.ie) to confirm your inspector.



# WIRING RULES 5TH EDITION I.S. 10101 ON TRACK



The introduction of I.S. 10101 2020 remains on track with the 1st of August 2022 being the day when all new electrical installations must be certified to the new standard. Therefore it is vital that all installations which will not be complete for pre-connection certification prior to this date are constructed in accordance with the new rules. After this date, Safe Electric will not process certificates for new work which does not comply with the new rules. Further clarification regarding implementation dates can be obtained from our webinars [HERE](#).

## Summary of Key Dates

### • 2020

- **1 April 2020**: New electrical installations may be designed and certified to the new standard

### • 2021

- **31 January 2021**: This is the last day new electrical installations may be designed to the old standard (*such installations **must** be certified by 31 July 2022*)
- **1 February 2021**: New electrical installations **must** be designed to the new standard

### • 2022

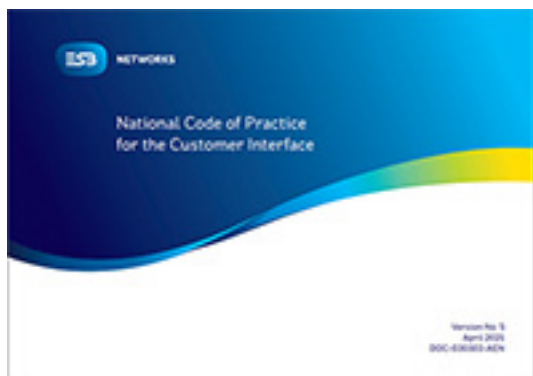
- **31 July 2022**: This is the last day an installation may be pre-connection certified to the old standard (*such installations **must** have been designed by 31 January 2020*)
- **1 August 2022**: Electrical installations **must** be certified to the new standard.



## New Edition of ESB Networks Customer Interface

Version 5 of the ESBN “National Code of Practice for the Customer Interface” has been released. Safe Electric Inspectors will issue these books to RECs during scheduled inspections. An online version is also available [HERE](#). It is essential that the guidelines outlined in the code are followed as any deviations could delay your customer connections.

Remember both RECs and ESB Network Technicians are obliged to comply with the code and if the code is adhered to and valid certification provided, ESBN cannot refuse to provide a connection.

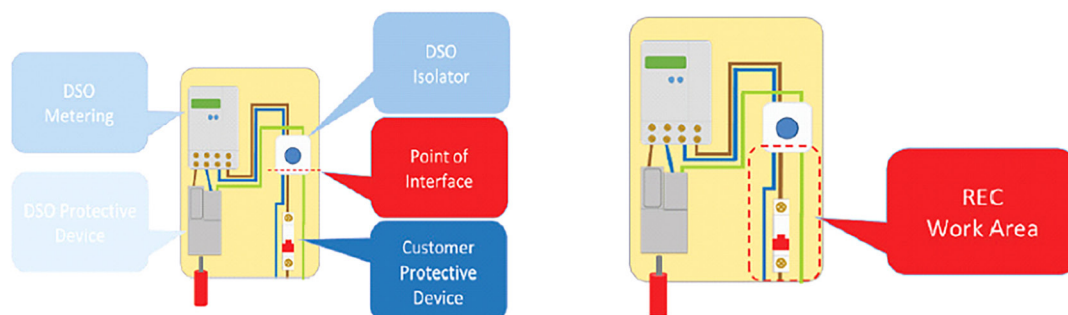


RECs should take note of page 45 which clearly outlines the requirements for the most common domestic connection. Note the “REC work Area” which as outlined on page 101 is limited to 180mm X 225mm.



The Outside Meter Box is owned and installed by the customer for use by ESB Network DAC. ESB Networks DAC will replace doors on standard size outside meter boxes only.

- The outside meter box shall be directly accessible from the main entrance driveway. A position on the house wall facing the driveway, or within 2m of either corner of this wall is normally acceptable subject to proper access.
- The DSO service cable shall enter the outside meter box via an approved 50mm red duct in the bottom left hand side of the outside meter box.
- The customer may install an IP55 rated enclosure in the bottom right hand side of the outside meter box. This enclosure shall contain main overcurrent protection equipment only (see ANNEX H ).

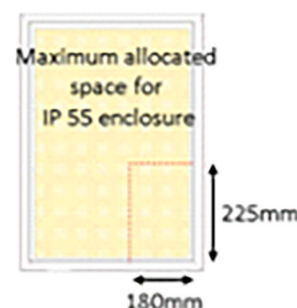


- Only the pre-constructed openings in the outside meter box shall be used to allow for cable access and egress.
- Where outside meter boxes are fitted in party walls between premises or several outside meter boxes are grouped together, each outside meter box shall have identification to associate it with a particular MPRN/address. This identification shall be in place at the time of the DSO service installation.

45 | [Code of Practice](#)

### F.1.5. IP55 Enclosure

The allotted space in the outside meter box for the IP 55 enclosure containing the customer's Protective Device is 180mm x 225mm (W x H) in the bottom right hand corner of the outside meter box.



(Extract from Page 101 of ESBN Customer Code of Practice.)

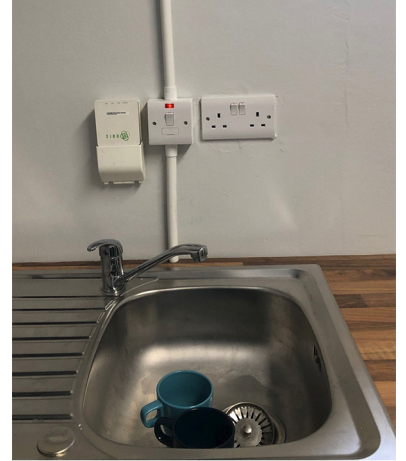
# FAQ

**Q** Is it a requirement to put a Fridge/Freezer on a dedicated RCBO circuit?

**A** There is no specific rule that requires that Circuit Protection for Fridge/Freezer needs to be dedicated. Good design and I.S. 531.3.2 would suggest that a dedicated circuit should be considered, but it is not a specific rule breach if Circuits supplying Fridge/Freezers sockets are shared with other appliances / sockets.

**Q** Is there a regulated distance for a socket from a sink?

**A** There is no rule specifying the minimum distance a Socket Outlet / Switch need to be from a sink. I.S. 554.3.4 states that a socket outlet should not be located where it is subject to dripping or splashing. The socket in the photo would clearly not conform with 554.3.5



**Q** Do outside lights in Domestic installations need to be on their own dedicated RCBO?

**A** While it would be good design practice to separate outside lights onto their own dedicated RCBOs, there is no rule requiring this.

**Q** Do Smoke / Heat/ Gas Detector detectors require their own Overcurrent protection, or can they be shared with Lighting Circuits?

**A** This is not addressed in the wiring rules, it is equally permissible to use dedicated circuits or to share detection devices with lighting circuits. Some local Authorities request that detection circuits are connected with the lighting circuits to minimise the risk of tenants turning off Fire / Gas safety circuits.

**Q** What is the maximum distance that an isolation switch can be from an appliance?

**A** I.S. 555.1.2 states that every appliance shall be provided with an isolation switch as close as practicable, ideally within 2 meters of the appliance. There is no distance specified for Inaccessible socket isolators in rule I.S. 554.3.5

**Q** Is it a requirement to provide a Neutral and Earth at a light switch?

**A** There is no rule requiring that Neutrals are provided at light-switches and no rule specifying they should not be, either is acceptable. I.S. 357.5 requires that a protective earth conductor "terminal" is provided at all switches, this includes where plastic / non-conductive boxes are used. All conductors, even those not in use, should be terminated in the box.

**Q** Is it permissible to have more than two rooms on a radial socket circuit?

**A** Annex 55A outlines recommended "Final Circuit Arrangements". I.S. 55A.4.2-part c) states, A radial circuit should not serve more than two rooms, A hall, landing, closet, or WC does not count as a room in this case.

**Q** How many cables can be terminated into a socket, light switch, MCB, RCBO etc?

**A** This issue is not directly addressed in the wiring rules, I.S. 526.1 and manufactures guidelines should be considered.

**526.1** Connections between conductors and between conductors and other equipment shall provide durable electrical continuity and adequate mechanical strength and protection.

**Q** Some Single Module RCBOs have a neutral tail on them, can we extend these with a connector?

**A** In this case the manufacturer should be consulted and confirmation that it is OK to extend the tail obtained.

**Q** Are Fire / Gas detection systems part of the wiring rules or building regulations?

**A** The specific requirements for Fire Safety in Domestic Houses are contained in the 2017 Building Regulations Part B TGD and the Standard is issued by NSAI and is I.S. 3218 (2013). Wiring systems associated with these systems are required to comply with the relevant wiring rules currently I.S. 10101 (2020)



**Q** Are DIN rail mounted Neutral / Earth terminals acceptable in a Distribution Board?

**A** Yes, it is perfectly acceptable to install additional DIN rail terminals in a Distribution Board. Items clipped onto DIN rails are deemed to be fixed.

**Q** Is RCD protection required for lighting circuits in Commercial or Industrial installations?

**A** 411.3.4 of I.S. 10101 requires that RCD protection is required for luminaries in “Domestic Premises”. I.S. 705.411.1 requires that lighting circuits in Agricultural Installations have RCD protection (100 ma). There is no requirement to provide RCD protection for luminaries in non-domestic installations.

**Q** Is 6-amp overload protection mandatory for lighting circuits?

**A** Annex 55A (Page 467) outlines recommended “Final Circuit Arrangements”. 55A.4.1 recommends 6-amp overload protection for lighting circuits wired in the minimum 1.5 sq. cable.

**Q** (A) Is a Twin Socket one or two Points? (B) Is a Twin Socket one or two Outlets?

**A** A point is defined on page 73 of I.S. 10101 as the “termination of the fixed wiring intended for the connection of current using equipment”. Therefore, a single or twin socket is one point. An outlet is not defined in I.S. 10101 but it would be logical to consider a single socket one outlet and a twin socket two outlets.

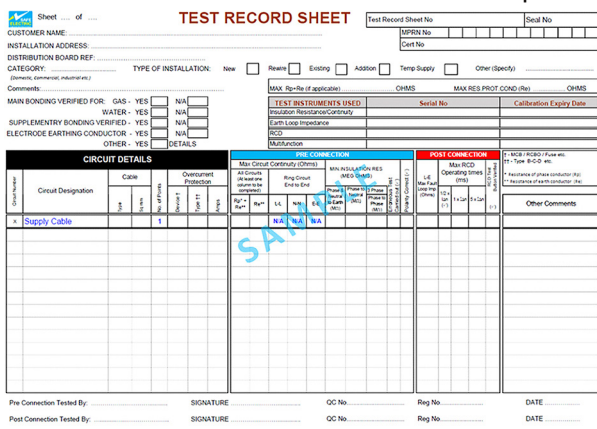

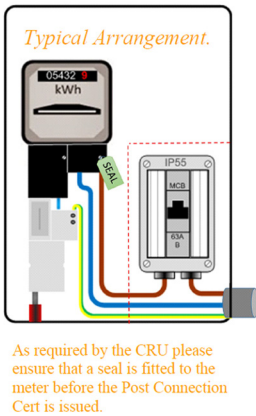
**Q** Is it OK to leave a Neozed Main fuse in a distribution board when installing an EV Charger?

**A** Neozed fuses if not tightened fully are subject to overheating and “Thermal Runaway”, particularly when supplying High Current loads. We would recommend that these fuses are replaced with 63-amp MCBs when adding any High Current addition to any installation.

**Q** I am upgrading Meter Tails and can't find the earth electrode?

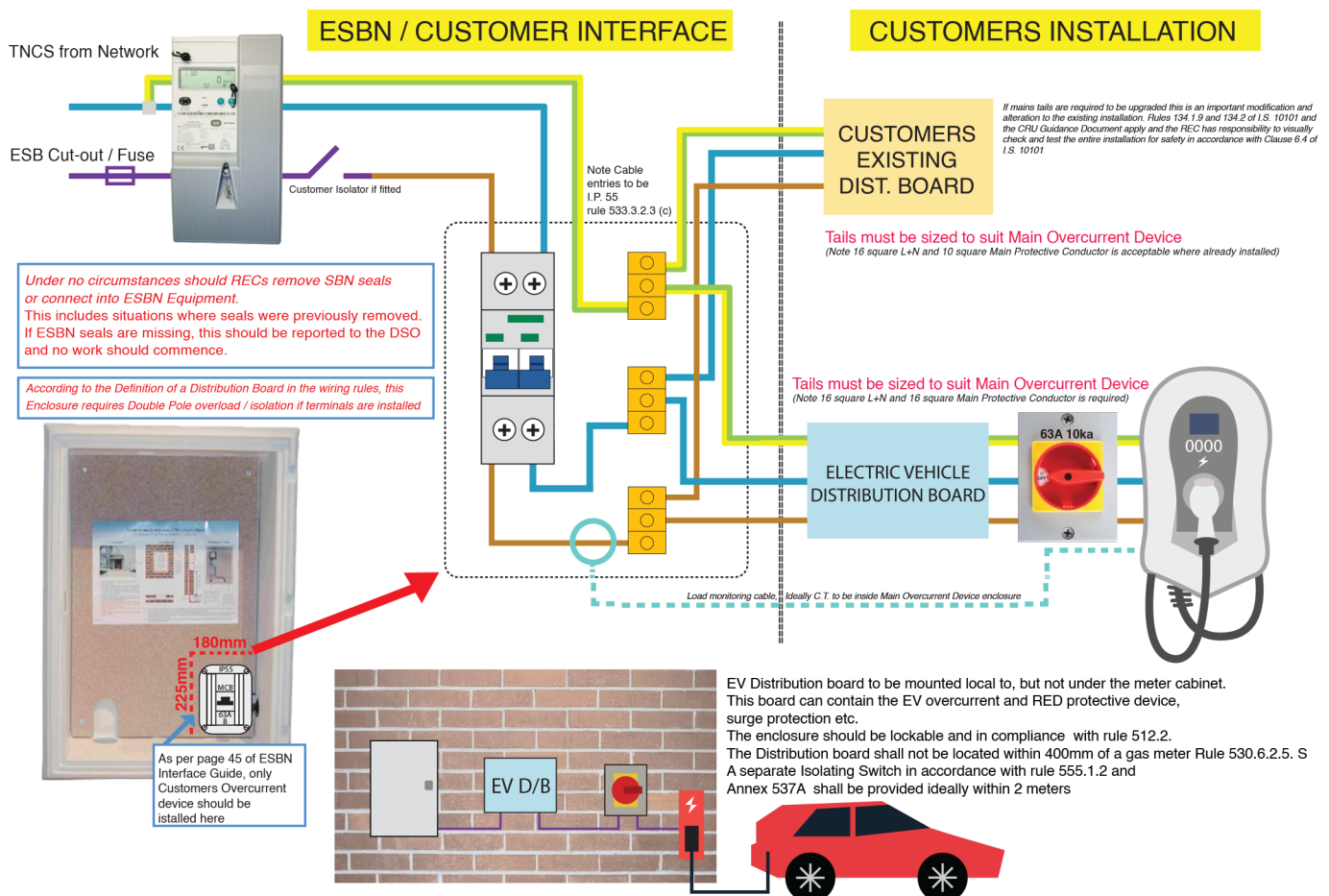
**A** I.S. 542.3.4 requires that connection for the electrode be “accessible for inspection” If the original electrode is not accessible, a replacement earth electrode and inspection box should be installed.

# TOP NON-CONFORMANCES SEPT 2021 - January 2022

Rule No.	Rule Description	Non Conformances
I.S. 433.4	No Surge / Overvoltage Protection Installed, Risk Assessment not done	90
I.S. 6.4.3.2	<p>RP+RE values recorded on TRS not consistent with sample test / cable lengths</p> 	54
I.S. 462.5	Double Pole main isolation not installed at Distribution Board	42
I.S. 63.4	Test Results recorded on Certificate not consistent with results on Test Record Sheet	40
I.S. 6.4.4.3	Test Record Sheets incorrect or Sample Test Results do not match results recorded	40
I.S. 526.5.1	<p>SWA cables, armour not correctly earthed</p> <p><b>526.5.1</b> Adequate electrical conductance shall be provided between metal sheaths or armouring of cables and the earthing terminals of equipment. This requires a proper design or a proprietary method.</p> <p>NOTE: A cables gland is deemed a proprietary method.</p> 	34
I.S. 462.5	Double Pole main isolation not installed at Distribution Board	42
613.1	Results on TRS do not match readings taken during inspection	27
613.3	No Insulation Resistance Test Recorded	27
533.3.5	Main Overcurrent Protective Device has incorrect rating	25
6.3 (CRU)	<p>No Contractor Seal installed in Meter Cabinet</p> <p>It is a requirement that the registered electrical contractor seals the connections to the ESNB network isolator following connection of a new installation. Each seal has a unique number which should be recorded in the relevant box on the test record sheet. Suitable seals can be ordered from Safe Electric</p> 	25

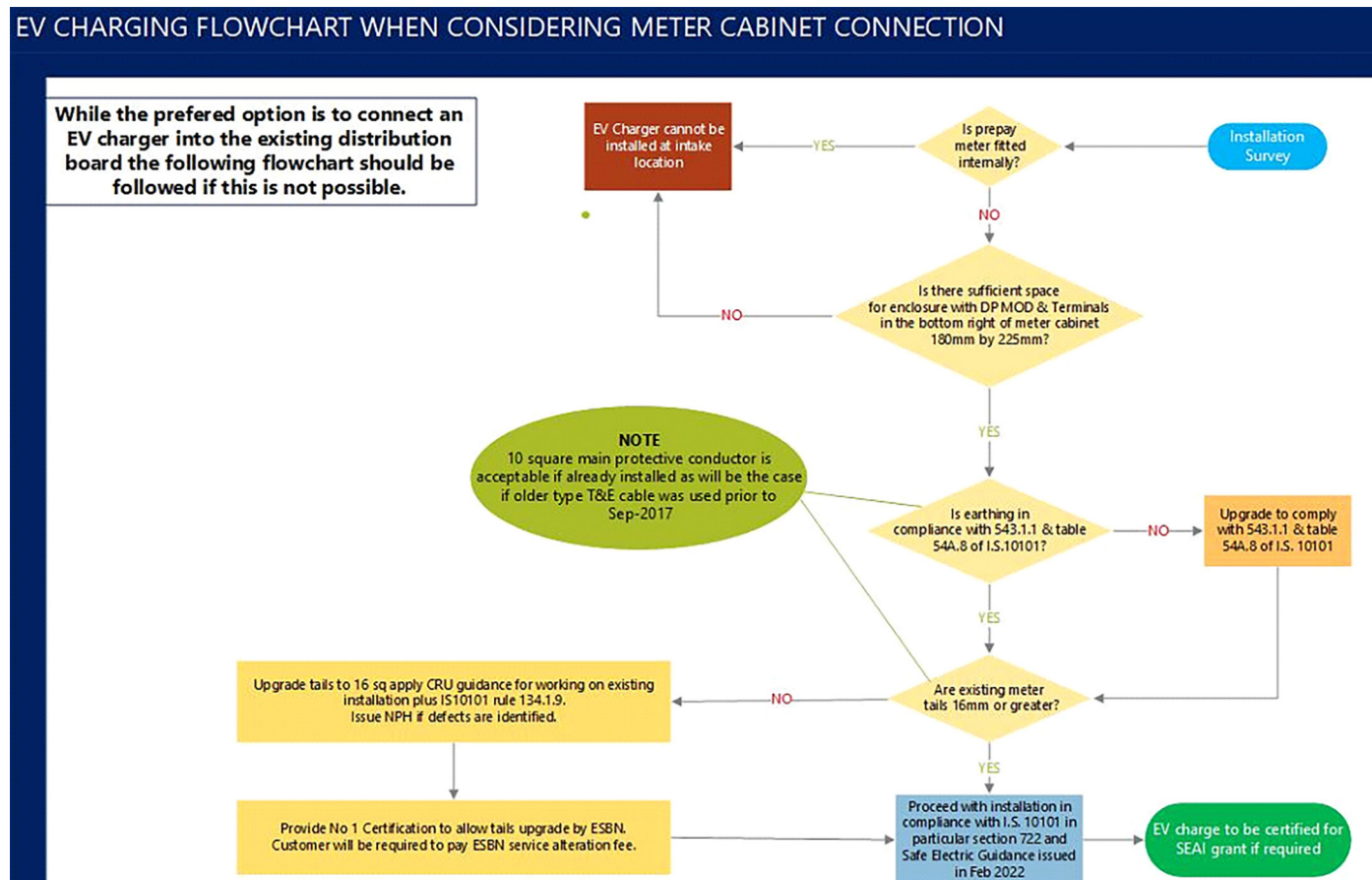


Safe Electric Newsletter 15



To comply with I.S. 10101, installers will need to provide an Electric Vehicle Sub Distribution Board as shown in the drawing. This board can be located beside the meter cabinet or remotely as required. If it is located externally, it will need to have suitable I.P rating and impact resistance. According to I.S. 10101, this distribution board will require Double Pole isolation and surge protection (or documented CRL calculation showing it is exempt).

Please note that in all circumstances, the meter tails need to be a minimum of 16sq to safely handle the sustained high current load of an EV charger.



## When installing an EV charger

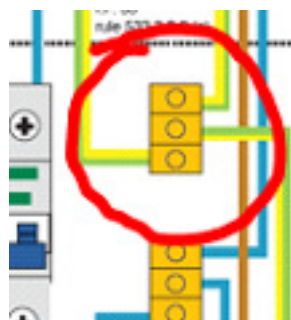
### Do

Survey the existing installation particularly metering arrangement, earthing, distribution board.  
Ensure existing meter tails are 16sq.  
Advise customer in writing if upgrade work is required to cater for the charger  
Connect EV charger at existing Distribution Board if possible

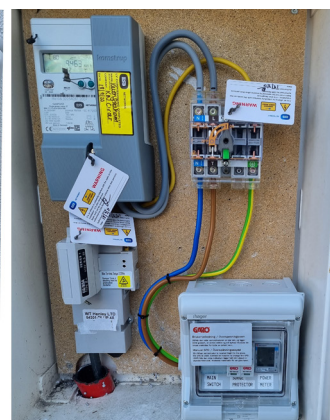
### Don't

Install at meter cabinet by default  
Install any equipment outside the contractor area in meter cabinet 180mm by 225mm  
Install EV charger at Meter Cabinet if prepay meter is installed  
Work on live cables at the Distribution Board

### Tip:



If Earth Electrode is not installed or visible for inspection, new electrode can be connected into terminal in Meter Cabinet as this becomes the Main Earthing Terminal (MET)



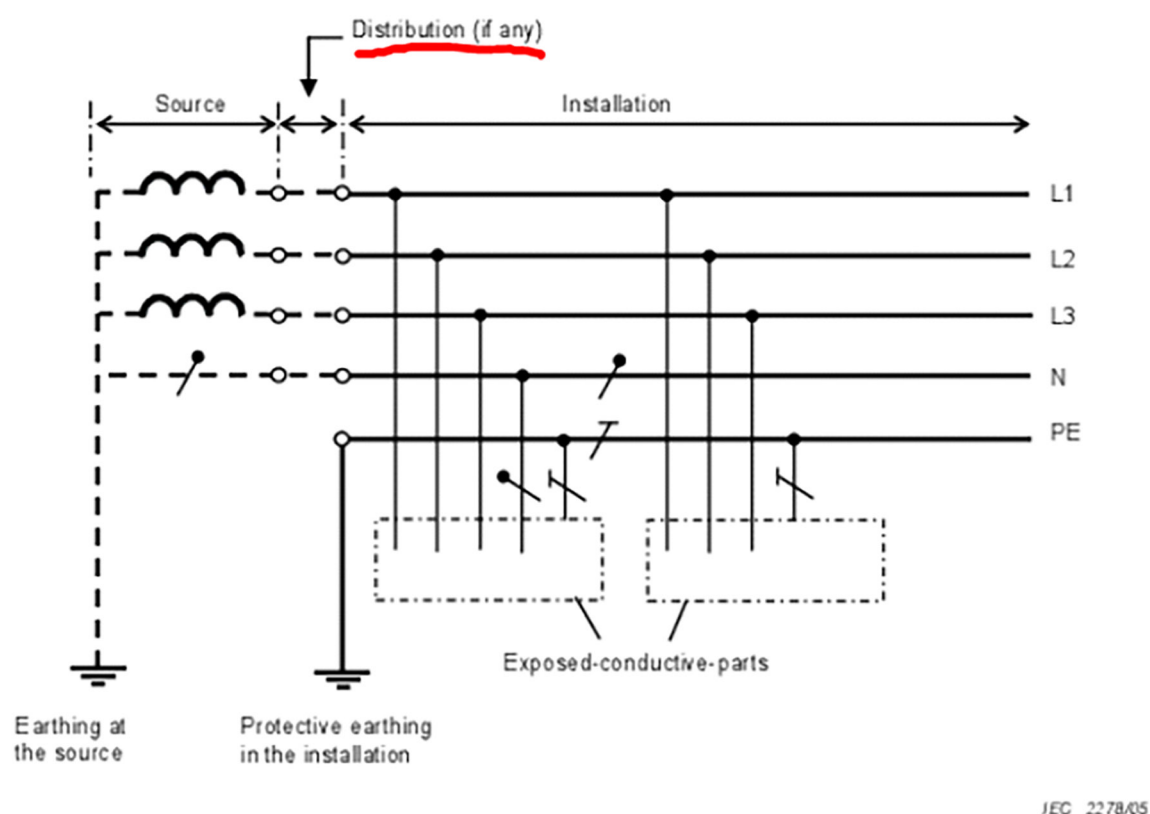
## Earthing Systems for Public Lighting to allow upgrades works and certification to IS10101

In order to cater for the certification of some historical Public Lighting systems which were previously maintained by ESNB and are now being taken over by the Local Authority's, clarification is required regarding systems which were originally wired using two core (Generally Concentric) cables.

For the Local Authority to take charge of the installation, a certificate confirming the installation is compliant with the National Wiring Rules and has been tested must be provided by a REC. Public lighting systems wired in two core cable, cannot be certified as compliant with the generally preferable TNCS earthing system.

Following consultation between Safe Electric, CRU, ESNB and Local Authorities it has been agreed that these Public Lighting Installations can be modified and then certified as compliant with either our standard TNCS earthing system or a TT earthing system.

The (3Phase) TT earthing arrangement is shown in figure 31E1 of I.S. 10101 2020 (Page 97).



**NOTE** Additional earthing of the PE in the installation may be provided.

**Figure 31E1 - TT system with separate neutral conductor and protective conductor throughout the installation**

The links between the lighting columns are the "Distribution" referred to in Figure 31E1. For three phase distribution 4 conductors are required and for single phase distribution 2 conductors are required. It is also acceptable that a conductive public lighting column buried in the ground is acceptable as the "Protective earthing in the installation"

The TT system will generally need to be modified to include the following requirements prior to certification.

- ESNB will provide a TT interface connection where required at injection points.
- RCD protection to comply with I.S. 531.3.5.3 and Table 53.1, where main RCD at first column, injection point, for distribution along with subsequent RCD for service
- RCD protection of 30 milliamps at each column
- Protective Earth Electrode at each column (See note above) 542.2, Annex 54D
- Test & certify the modified installation in accordance with Part 6.4 of I.S. 10101 (2020)



## SAFE ELECTRIC ELECTRONIC COMPLETION CERTIFICATE (ECC) SYSTEM

Following hosting server upgrades in 2020 the Safe Electric ECC system is available for all RECs if required. The system, which only caters for Number 1 and Number 2 certificates can be used in conjunction with the paper system., i.e., users of the system can also continue to submit paper certificates.

Certificates submitted on the ECC system are presented for validation immediately and transferring to ESNB for connection is normally faster. Because there is no reliance on the Postal System, processing times can be 1-3 days quicker. Other advantages are that the installation address is generated from the ESNB record following input of the MPRN and therefore can't be incorrect and the process won't allow you to proceed unless previous fields have been filled in.

The screenshot shows the RECI system interface for entering installation details. It includes fields for Customer Name, Address of Installation, Previous Description, Date of Installation, and various checkboxes for installation types (e.g., New, Alteration, Temporary Supply). It also has sections for Test Results, Comments, and a list of installers.

The screenshot shows the RECI system login page. It features a 'SAFE ELECTRIC INFORMATION NOTICE' regarding Post Connect Test Results (PCTs) and a 'NOTICE: 10th December 2021' about certificate validation. Below the notices, there is a login section with fields for Username and Password, and a 'Logon' button.

RECs who want access to the system can sent an email to [reciinfo@reci.ie](mailto:reciinfo@reci.ie). We need to have a valid up to date email address and applicants will receive an email with login information, username, and initial password. The email will also contain detailed information outlining the operation of the system.

## Important SEAI EV Home Charger



Through the EV Home Charger grant scheme, SEAI has provided funding for almost 8,000 installations in 2021 and this is expected to increase further in 2022. To obtain the grant customers must provide a valid Safe Electric completion certificate issued by a REC. To keep up with the additional demand and improve customer experience, the SEAI grant will transition to a fully online application process from March 2022. All registered electricians and installers should pay careful attention to the following points:

In the current process, successful applicants are required to print out a 2-page payment request form; the second page is manually filled in and signed by the registered contractor

In the new online system, successful applicants will be issued with 2 different web links; the first link will be completed by the applicant and the second link will be forwarded to the installer who is required to complete and sign the form online using a digital device (laptop, phone or tablet). Please note that it will not be possible to request a paper form application.

We strongly recommend that the electrician form is completed at the property of the applicant on the day when the installation is completed. The applicant will not be able to submit their payment form until the electrician has submitted theirs.

A sample application form for the electrician can be accessed at the following [link](#).

To provide more guidance on the upcoming changes, SEAI and Safe Electric will be hosting a joint 30-minute workshop at 11:00am on Wednesday 2nd of March, followed by a Q&A session. A recording of the meeting will be made available afterwards.



**Requirements for Principal Duty Holder**

1.2.5 A Principal Duty Holder will:

- (i) have responsibility for all matters relating to Registration and be the primary point of contact with the Body;
- (ii) have an understanding of, and responsibility for, the safety conditions relating to the range of electrical work undertaken by the business;
- (iii) have responsibility for the maintenance of the overall standard and quality of the electrical work carried out or managed by the enterprise and for ensuring that there are systems in place **whereby all electrical work undertaken is carried out by competent persons** who are adequately and appropriately supervised; and
- (iv) be responsible for ensuring that the REC is in compliance with the conditions of this Criteria Document and anything further to this Criteria Document. This will include (but is not limited to) activities relating to the following:
  - (a) ensuring any person acting as a Qualified Certifier meets the conditions outlined in Clause 1.2.7 (Qualified Certifier);
  - (b) ensuring that the necessary records of all Qualified Certifiers are maintained and are kept up to date. Such records must be able to demonstrate the competency, qualifications and training of each Qualified Certifier;
  - (c) ensuring that any material changes to the details of its Named Qualified Certifier(s) are communicated immediately to the Body;
  - (d) ensuring that only persons who comply with the conditions laid down in this Criteria Document for a Qualified Certifier issue Certificates on behalf of the REC;
  - (e) ensuring that the appropriate Certificates and other documentation are issued and recorded for **all** completed electrical work in accordance with the requirements of this Criteria Document;
  - (f) safeguarding any unused Certificates which have been issued to the REC in order to prevent loss, theft and/or unauthorised use;
  - (g) ensuring that the REC holds the appropriate level of insurance cover as specified by this Criteria Document/the Body;
  - (h) ensuring that all records required to be held by the REC as part of the Rules of Registration are maintained and kept up to date; and,
  - (i) complying with the requirements of the Body concerning Audit and Inspection.

1.2.6 A Principal Duty Holder may also be a Qualified Certifier.