



NSAI

ANNUAL REPORT 2022

NSAI TECHNICAL COMMITTEES
(NSAI/ETC/TC 03)

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1 Chairman's Statement

2022 was a busy year for the committee we held five meetings and welcomed six new members (two will join their first meeting in 2023) into the group, membership and contributions for the committee is very healthy.

In 2022 we continued our work updating S.R. 61936. We also socialised S.R. 61936 and I.S. EN 50110. We started collaborating with NSAI/ETC/WG 01 in the area of HV & LV Earthing Systems. Some of our new members have allowed us to expand the committees scope to cover HVDC.

Committee members continued to contribute substantially to the work of international and domestic committees and working groups. In particular our work with IEI in relation to safety in HV installations which has resulted in us being in contact with CIF in relation to a new 3rd level course to try and address the skills gap in the area.

We continued our review of Distributed Energy Resource Management Systems (DERMS). We expect this area to be a feature in coming years

We will have a busy set of activities in 2023.

Many Thanks to all involved.

Neil Cowap

Chair of NSAI/ETC/TC 03.

2 Introduction

NSAI/ETC/TC 03 is the technical committee responsible for preparing national installation standards for High Voltage power installations (exceeding 1 kV a.c. or 1,5 kV d.c.) located indoors or outdoors, including earthing. In 2019, the committee published a Standard Recommendation S.R. 61936:2019, "Guidelines on the application of I.S. EN 61936-1:2010&A1:2014, Power installations exceeding 1 kV a.c. - Part 1: Common rules".

The committee are responsible for the maintenance of S.R. 61936.

The committee has two Subcommittees which reports into it.

- NSAI/ETC/TC 03/SC 01 "Overhead electrical lines exceeding 1kVa.c.

This subcommittee was established to develop the Irish National Normative Aspects NNA to EN 50341-1 "OVERHEAD ELECTRICAL LINES EXCEEDING AC 1 KV - PART 1: GENERAL REQUIREMENTS - COMMON SPECIFICATIONS", which will be I.S. EN 50341-2-11 "Overhead Electrical Lines Exceeding AC 1 KV - Part 2-1: National Normative Aspects (NNAs) For Ireland (based On EN 50341-1)"

- NSAI/ETC/TC 03/SC 02 "Insulators and surge Arresters"

As a result of restructuring within the Electrotechnical sector of NSAI, NSAI/ETC/TC 19 was disbanded and reformed as a subcommittee NSAI/ETC/TC 03/SC 02.

3 Scope of TC

In 2022 the committee extended its scope, its new scope is as follows:

NSAI/ETC/TC 03 is the Technical Committee responsible for preparing national installation standards for:

- Design,
- Operations and Maintenance,
- associated competence assessment/certification
 - of Designers
 - of assets designed
 - of assets constructed

of assets for High Voltage power installations (exceeding 1 kV a.c. or 1,5 kV d.c.) located indoors or outdoors, including earthing.

The standard specifies the design requirements (and associated pro-forma certification) of the installation, and the selection and erection of electrical equipment in order to ensure the safety of persons and the proper operation of the installation. The installation standard is not applicable to factory built and type tested equipment but is relevant to the installation of this equipment. The installation requirements defined in S.R. 61936 are not applicable to overhead and underground lines between separate installations.

The EN 50110 standard is applicable to all operation of and work activity on, with, or near electrical installations. These are electrical installations operating at voltage levels from and including extra-low voltage up to and including high voltage. This latter term includes those levels referred to as medium, high voltage and extra-high voltage. These electrical installations are designed for the generation, transmission, conversion, distribution and use of electrical power.

This work of this ETC TC3 committee focuses on installations operating at Voltages above 1,000 Volts a.c. (question about auxiliary supplies).

The work of the committee is analogous to the work of NSAI ETC TC2 'Electrical Installations' which develops and maintains the requirements for installations connected at low voltage. The work of this committee will also require coordination and cooperation with the scope of work associated with that of NSAI ETC TC 20 for Smart Grids.

The committee mirrors the following international committees:

Committee Name	Committee Title
IEC TC 99	Insulation co-ordination and system engineering of high voltage electrical power installations above 1,0 kV AC and 1,5 kV DC
IEC TC 11	Overhead lines
IEC TC 115	High Voltage Direct Current (HVDC) transmission for DC voltages above 100 kV
IEC TC 78	Live Working
IEC PC 127	Low-voltage auxiliary power systems for electric power plants and substations
IEC PC 128	Operation of electrical installations
CLC BTF 62-3	Operation of electrical installations
CLC TC 11	Overhead electrical lines exceeding 1kV a.c. (1.5kV d.c.)
CLC TC 99X	Power installations exceeding 1 kV a.c. (1,5 kV d.c)

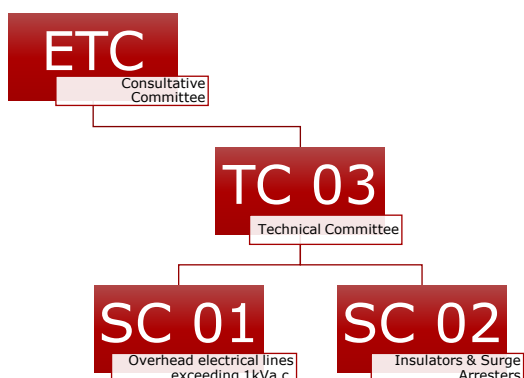
Subcommittee NSAI/ETC/TC 03/SC 02 mirrors the following international committees:

Committee Name	Committee Title
IEC TC 36	Insulators
IEC SC 36A	Insulated bushings
IEC TC 37	Surge arresters
IEC SC 37A	Low-voltage surge protective devices
IEC SC 37B	Components for low-voltage surge protection
CLC TC 36A	Insulated bushings
CLC TC 37A	Low-voltage surge protective devices

4 Structure and Membership

4.1 Structure

The Figure below illustrates the structure of the Committee:



4.2 Members

The list below are the members for the year:

Organisation	Role
ESB CHAIR	National chairperson
ABB	National committee member
AECI	National committee member
Consultant	National committee member
Consultant & Liaison Engineers Ireland	National committee member
Eirgrid	National committee member
ESB Networks	National committee member
ESBI	National committee member
H&MV Engineering	National committee member
Hivar Engineering	National committee member
HSA	National committee member
HSE	National committee member
IET	National committee member
Independent Consultant	National committee member
MDS	National committee member
MOTTMAC	National committee member
PSC Ireland	National committee member
SIRO	National committee member
Suir Engineering	National committee member
ESB Engineering and Major Projects EMP	National committee member
Independent Consultant	National Observer

4.2.1 Members of NSAI/ETC/TC 03/SC 01

Organisation	Role
NSAI	National Secretary
ESB	National Committee Member

4.2.2 Members of NSAI/ETC/TC 03/SC 02

Organisation	Role
NSAI	National secretary
ESB	National Chairperson
TE CONNECTIVITY IRELAND LTD	National Committee Member
ESB	National Committee Member

5 Summary of 2022 Activities

5.1 National

The full Technical Committee met 5 times in 2022.

5.1.1 Meetings

Committee members attended the following national meetings in NSAI as follows:

Meeting No.	Date	Minutes Reference
1	27 th January 2022	N1272
2	31 st March 2022	N1280
3	23 rd June 2022	N1288
4	1 st September 2022	N1301
5	1 st December 2022	N1312

5.1.2 National Work

No national work carried out in 2022.

5.2 International/Regional

5.2.1 Meetings

Committee members attended international CENELEC (CLC) and IEC meetings as follows:

Committee Name	Location	Date	Attended
IEC TC 99 Plenary	Virtual	2022/11/14	AJG, NR, CMcL
IEC/TC 99/MT 4	Virtual		

IEC/PC/127 Plenary	Virtual	2022/03/10 2022/03/11	CJR CJR
IEC/PC/127 WG 2	Virtual		
IEC/PC/127 WG 4	Virtual		
IEC/PC/127 ahG 1	Virtual		
IEC/PC/128 Plenary	Virtual	2022/07/06	AJG, MH, PP
IEC/PC/128/WG 2	Virtual	2022/11/30 2022/09/30	PP PP
CLC/BTTF 62-3	Virtual	2022/04/05 2022/04/06 2022/04/07 2022/08/02 2022/08/01 2022/10/18 2022/10/19 2022/10/20	PP PP PP PP PP PP PP PP
CLC/TC 11/WG 09	Virtual		
CLC/TC 99X Plenary	Virtual	2022/02/16 2022/09/20	AJG PP, AJG, CMcL
CLC/TC 99X/WG 01	Virtual		
IEC TC 36	Virtual		
IEC SC 36A	Virtual		
IEC TC 37	Virtual		
IEC SC 37A	Virtual		
IEC SC 37B	Virtual		
CLC TC 36A	Virtual		
CLC TC 37A	Virtual		
IEC TC 115	Virtual	2022/11/15 2022/11/16	

5.2.2 International/Regional Work

The newly established international project committee IEC PC 128 " Operation of electrical installations" was also brought within the scope of the NSAI/ETC/TC03 and a representative from the National Mirror Committee was nominated to the Convenor of IEC/PC 128/WG 01.

5.2.3 International/Regional Standards Reviewed

The committee continue to review standards as they arise in IEC & CLC.

The committee has been actively attending IEC meeting in relation to IEC 61936 and have been attending CLC meetings in relation to EN 50110.

5.2.4 International/Regional Voting Results

The committee actively voted on 10 documents in 2022. The committee submitted 5 sets of comments.

Body	Vote Reference	Comments Submitted	Decision	WIID
IEC	128/15/AC	Yes	Approve	
IEC	128/17/Q	Yes	Approve	
IEC	99/368/FDIS	No	Approve	
IEC	99/364/CDV	No	Approve	
IEC	115/303/CD	No	Abstain	
IEC	115/306/CD	Yes	Approve	
IEC	115/305/CD	Yes	Approve	
IEC	115/311/CD	Yes	Approve	
CLC	FprEN IEC 60071-12:2022	No	Approve	73431
CLC	prEN IEC 61936-2:2022	No	Approve	74561

5.3 Regulatory Development/Update

The committee would like to have S.R. 61936 cited. The HSA have updated their website to include references to S.R. 61936: 2019 and I.S EN 50110-1:2013. [Information Guidance Legislation - Health and Safety Authority \(hsa.ie\)](https://www.hsa.ie/legislation).

Engineers Ireland issued an Issues paper "[Competence of Persons operating HV Apparatus](#)" which references S.R. 61936.

6 Irish Publications/Reviews

6.1 Publications

The Committee did not publish any deliverables this year.

6.2 Reviews

The Committee reviewed the following Irish national deliverables: S.R. 61936-1:2019

7 Work programme for 2023 onwards

The committee will continue attendance and contribution at IEC & CLC level throughout 2023. The committee are exploring the following areas for 2023:

- Exploring the possibility of adding Chapter 11 to the IEC document
- Continue to work on inclusion of Ireland requirements into CLC & IEC Standards
- Continue the work that NSAI/ETC/TC 03 should concentrate on developing both standards including design certification and the area of competence.
- Continue to input into the next revision of I.S. EN 50110.

8 Additional Information

No additional information to add.