

ANNUAL REPORT 2021

NSAI TECHNICAL COMMITTEES (NSAI/ETC "ELECTROTECHNICAL COMMITTEE")

Contents

1	Cha	irman's Statement	3
2	Intr	oduction	4
3	Sco	pe of TC	4
4	Stru	ucture and Membership	5
	4.1	Structure	5
	4.2	Members	5
5	Sun	nmary of 2021 Activities	6
	5.1	National	6
	5.1.	1 Meetings	6
	5.1.	2 National Work	6
	5.2	International/Regional	6
	5.2.	1 Meetings	6
	5.2.	2 International/Regional Work	7
	5.2.	3 IEC P & O Membership Status	8
	5.2.	4 International/Regional Standards Reviewed	12
	5.2.	5 International/Regional Voting Results	12
	5.3	Regulatory Development/Update	12
6	Irisl	n Publications/Reviews	13
	6.1	Publications	13
	6.2	Reviews	13
7	Wor	k programme for 2022 onwards	14
8	Add	itional Information	14

1 Chairman's Statement

The world is facing environmental, health and economic challenges. The work of the NSAI/ETC has an essential contribution to make in helping to address these challenges.

2021 was characterised by the Covid-19 pandemic which presented unique challenges to standardisation activities world-wide. In person meetings were not possible and the NSAI Electrotechnical Committee (ETC) continued to meet remotely. Whilst there were efficiencies yielded by not having to travel, having a conversation with fellow experts face-to-face allows for a more fluid and dynamic exchange of ideas and collaboration.

The work of the NSAI/ETC is reflective of new and emerging technologies in radiofrequency technologies, the use of energy and energy transfer. The IoT - internet of things continues to grow and the use of induction transfer of power affects impacts the work of many of our committees. The growth of energy generation including wind and solar photovoltaic raises new issues for standardisation including the wiring rules. The ability of consumers (prosumers) to generate their own power raises difficult issues for electrical safety of the grid and measurement of power transfer. DC distribution is growing and is very important in a national context with two international HVDC interconnectors already operating on the island of Ireland. Two more are underway planning. DC distribution is in use in data centres.

Our many experts give their time and technical expertise to the NSAI/ETC technical committees to make these new technologies possible.

The efficiency of energy consumption affects CO₂ levels and from a national point of view air and water source heat pumps are seen as preferred renewable technologies under the alternative energy requirement.

The national wiring rules I.S. 10101 have seen extensive uptake. There have been more than 9,600 copies sold since it was published in 2020. The final stage of the transition period from ET 101 to I.S. 10101 will take place on the 31st of July 2022. NSAI/ETC/TC 02 put in an intense effort to develop the new rules which are ever changing because of the introduction of new technologies including electrification of the automotive industry and energy efficiency.

The many standards areas that NSAI/ETC are involved in are essential to support EU Directives. The European Commission and CENELEC continue to streamline the adoption of standards which have seen long delays in implementation in recent years because of legal issues. This is very important for areas under the ETC remit such as Medical Devices, EMC, the Low Voltage Directive and ATEX.

The theme for the IEC general meeting in 2020 was "Leading industry 4.0 through standardization". Industry 4.0 is fuelled by new technologies that offer intelligence, automation and a new level of efficiency. Advanced technologies such as the Internet of Things, cloud computing, and artificial intelligence make it possible to collect, share and analyse huge volumes of data. Electrotechnical standards enable users to fully secure the benefits of Industry 4.0, including defining the requirements for the safety, performance and interoperability of technology.

In the future broad societal challenges will require integrated technology solutions. The work of the NSAI/ETC actively reaches out to many technology sectors, to optimize outcomes, and reduce waste and cost for stakeholders.

2 Introduction

NSAI has established the consultative Electro Technical Committee (ETC) to advise NSAI on technical and policy matters concerning Ireland's membership of the International Electrotechnical Commission (IEC) and European Committee for Electrotechnical Standardization (CENELEC), the formulation of Irish Standards and the establishment and maintenance of the infrastructure of NSAI national mirror Technical Committee. The membership of the ETC is composed of key stakeholders/collective bodies that provide an authoritative and representative voice or policy role in the electrical sector.

The industry currently has 512 experts involved in international work.

3 Scope of TC

The NSAI ETC extends to all areas of electro-technology covered by the IEC and CENELEC, and to the extent from time to time agreed with NSAI, certain areas of the work of the European Telecommunications Standards Institute (ETSI), the International Organization for Standardization (ISO) and the European Committee for Standardization (CEN) or other relevant standards organisations.

The committee does not mirror international committees; Its function is to provide oversight to the following technical committees:

Committee Name	Committee Title
NSAI/ETC/TC 01	Safety of household and similar electrical appliances
NSAI/ETC/TC 02	Electrical Installations
NSAI/ETC/TC 03	Power installations exceeding 1kV (1.5kV dc)
NSAI/ETC/TC 04	Switchgear, control gear and associated equipment
NSAI/ETC/TC 06	Equipment for potentially explosive atmospheres
NSAI/ETC/TC 10	Electrical equipment in medical practice
NSAI/ETC/TC 11	Safety of Electronic Equipment within the field of Audio/Video,
NSAI/EIC/ICII	Information Technology and Communication Technology
NSAI/ETC/TC 12	Electronic Communications Systems
NSAI/ETC/TC 13	Alarm systems
NSAI/ETC/TC 14	Electric cables
NSAI/ETC/TC 15	Human exposure to electromagnetic fields
NSAI/ETC/TC 16	Electromagnetic Compatibility
NSAI/ETC/TC 18	Marine energy - Wave, tidal and other water current converters
NSAI/ETC/TC 20	Smart Grids, Renewables, Electric Vehicles and Energy Efficiency
NSAI/ETC/TC 21	Electrostatics
NSAI/ETC/TC 22	Environmental Standardization for Electrical and Electronic Products
HOAT/ LIC/ IC 22	and Systems
NSAI/ETC/RCDTF	Residual Current Devices Task Force

4 Structure and Membership

4.1 Structure

The Figure below illustrates the structure of the Committee:



4.2 Members

The table below provides the members represented on the committee for the year:

National CHAIR	CEI	Compliance Engineering Ireland Ltd.
National PRESIDENT	NSAI	National Standards Authority of Ireland
National SECRETARY	NSAI	National Standards Authority of Ireland
ASSISTANT SECRETARY	NSAI	National Standards Authority of Ireland
	ACEI	Association of Consulting Engineers of Ireland
	AECI	Association of Electrical Contractors Ireland
	AEW	Association of Electrical Wholesalers
	CCPC	Competition and Consumer Protection Commission
	CIBSE	Chartered Institution of Building Services Engineers
	Comreg	Commission for Communications Regulation
	CRU	Commission for Regulation of Utilities
	DCC	Dublin City Council
	DUT	Technological University Dublin
	ECA	Electrical contractors Association in Ireland
	EIFI	Electrical Industries Federation of Ireland
National committee member		Eir
National committee member		Eirgrid
	EMDA	Electrical manufactures and Distributors Association
	ESB	Electricity Supply Board
	HSA	Health & Safety Authority
	IET	Institution of Engineering & Technology
		Independent Consultant
	NSAI	National Standards Authority of Ireland
	OPW	Office of Public Works
	RECI	Register of Electrical Contractors of Ireland
	SEAI	Sustainable Energy Authority of Ireland - Energy management
	JEAI	/ Sustainability
	SOLAS	Future Education and Training
National committee Observer		Chair NSAI/ETC/RCDTF
		Chair NSAI/ETC/TC 01

Chair NSAI/ETC/TC 02
Chair NSAI/ETC/TC 03
Chair NSAI/ETC/TC 04
Chair NSAI/ETC/TC 06
Chair NSAI/ETC/TC 10
Chair NSAI/ETC/TC 11
Chair NSAI/ETC/TC 12
Chair NSAI/ETC/TC 13
Chair NSAI/ETC/TC 14
Chair NSAI/ETC/TC 15
Chair NSAI/ETC/TC 18
Chair NSAI/ETC/TC 20
Chair NSAI/ETC/TC 21
Chair NSAI/ETC/TC 22

5 Summary of 2021 Activities

5.1 National

5.1.1 Meetings

Committee Members attended the following National meetings in NSAI as follows:

Meeting No. Date		Minutes Reference
1	4 th February 2021	<u>N0099</u>
2	6 th May 2021	<u>N0113</u>
3	9 th September 2021	<u>N0123</u>

5.1.2 National Work

Highlights and decisions for 2021 included:

- Three national meetings via MS Teams for NSAI, meaning a total of Fifteen meetings have now taken place since the formation of the ETC on the 20th March 2017.
- The Committee agreed the withdrawal of the following publications:
 - I.S. 202-10:2003 Cables of rated voltages up to and including 450/750 V and having cross linked insulation – Part 10: EPR insulated and polyurethane sheathed flexible cables. To be withdrawn in 2022
 - o I.S. 270:1988 "Conductors of Insulated Cables" To be withdrawn in 2022
 - I.S. 201-5:2001 "Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V - Part 5: Flexible Cables (Cords) - To be withdrawn in 2022
- ETCI publications were review by the NSAI/TCs and the decisions made are listed in section 6.2 of this report.

5.2 International/Regional

5.2.1 Meetings

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

Committee Name	Location	Date	No. of Attendees
167 th CENELEC BT	Virtual	16 th & 17 th February	1
168 th CENELEC BT	Virtual	27 th & 28 th May	1
169 th CENELEC BT	Virtual	19 th & 20 th October	1

85 th IEC General meeting Virtual	3 rd & 7 th October	6
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5.2.2 International/Regional Work

Highlights for 2021 included:

- NSAI/ETC/TC 02 continue to review the revised HD in the 60365 series. A new Working Group was established NSAI/ETC/TC 02/WG 03 to look at EV Charging Points.
- NSAI/ETC/TC 03 continued work on S.R. 61936. Participation at both IEC & CLC meetings have increased. A Member of the committee has joined IEC/PC/128/WG 1 as the convenor.
- NSAI/ETC/TC 04 members aim to get more involved at both IEC & CLC meeting.
- NSAI/ETC/TC 06 concentrating its work on EN 60079-14, -17, -19 and continue to attend IEC/TC 31 meetings.
- NSAI/ETC/TC 10 continue to contribute to IEC TC 64 MT 40 on the work of IEC 60364-7-710 and attended CENELEC TC 62 meetings.
- NSAI/ETC/TC 11 chair, Peter Kelleher, has the role of chairman of CENELEC TC 108X and they are currently working on the 3rd edition of EN 62368.
- NSAI/ETC/TC 13 continue to participate in CENELEC TC 79.
- NSAI/ETC/TC 15 membership is strong in attendance at IEC TC 106 & CENELEC TC 106X.
- NSAI/ETC/TC 16 are active and continue to participate in CELELEC.
- NSAI/ETC/TC 18 are engaging with IEC/TC 114.
- NSAI/ETC/TC 20 continue to work internationally and support NSAI/ETC/TC 02/WG 03.
- NSAI/ETC/TC 21 held their 1st meeting since 2018 in 2021.
- NSAI/ETC/TC 22 high levels of engagement with IEC/TC 111 & CLC/TC 111X.
- NSAI/ETC/RCDTF are actively involved in IEC/TC 23E & CLC/TC 23E.
- NSAI continue to be represented at the CENELEC Technical Board (BT).
- The IEC Young Professionals Programme took place this year and due to the cancelled programme last year was extended to 3 candidates in 2021. Ireland had 3 representatives who attended virtually in Dubai.
- NSAI attended the briefing of the National Secretary in advance of the IEC Annual General Meeting
- NSAI attended the National Secretary General meeting.
- NSAI updated their default voting positions to those shown in the tables below.

IEC

Default voting positions	TC/SC	Type of Member	Committee Docs	NP	DISH	Voting mechanism	Systematic Review	Main Ballots	Responsible officer
IEC	All TCs & SCs	P	Vote required	Abstain	Abstain No Comments	Web based e- ballots		DTS, DTR - Abstain CD - No Comments CDV - Abstain FDIS - Abstain Q - No Comments	All
IEC	All TCs & SCs	0	No vote required	No Vote		Web based e- ballots		DTS, DTR – no vote CDV – no vote FDIS no vote Q – no vote	All
IEC Council	N/A	N/A	Vote required	N/A		Web based e- ballots		C- Yes	Enda McDonnell
NP NEW WORK ITEM PROPOSAL CD Committee Draft AC Administrative Circular		Ĺ	Q Qu	estionnaire			DISH DR FDIS FIN DTS DR	MMITTEE DRAFT FOR VO AFT INTERNATIONAL SH IAL DRAFT INTERNATION AFT TECHNICAL SPECIF AFT TECHNICAL REPOR	EET IAL STANDARD ICATION

CENELEC

Default voting positions TC/SC	Internal Committee Ballot/CIV	NWIP	Systematic Review	New Chair/Convenor	Support sending doc to FV	Main Ballots	Responsible officer
All TCs & SCs	Abstain	Abstain	- Abstain - No - No - No	1 Candidate - Yes > 1 Candidate - Abs	If given option - Abs If not given option - Yes	ForTR & ForTS Abstain if CLC vote only. If parallel vote with IEC and IEC = P member follow IEC default otherwise Abstain Eng - Abstain FV/UAP - Abstain	All
BT AG	No default. Refer to manager	N/A				N/A	Y Wylde E McDonnell
ВТ	Standardisation requests Abstain						Y Wylde

5.2.3 IEC P & O Membership Status

In 2021 NSAI Membership status was changed from an Observer member to a Participating Member on the following 3 technical committees.

Committee	Description		
IEC/TC 47 Semiconductor devices			
IEC/TC 31/SC31M	Non-electrical equipment and protective systems for explosive		
	atmospheres		
IEC/PC 128	Operation of electrical installations		

In 2021 NSAI Membership status was changed from a Participation member to an Observer Member on the following 4 technical committees.

Committee	Description
IEC/TC 20	Electric cables
IEC/TC 37/SC 37A	Low-voltage surge protective devices
IEC/TC 48	Electrical connectors and mechanical structures for electrical and electronic equipment
IEC/TC 48/SC 48B	Electrical connectors

NSAI are currently a P "Participating" member to 50 IEC Technical committees and an O "Observer" member in 74 IEC Technical Committees.

Committee	Description	Status
TC 1	Terminology	O-Member
TC 2	Rotating machinery	O-Member
TC 4	Hydraulic turbines	O-Member
TC 5	Steam turbines	O-Member
TC 7	Overhead electrical conductors	O-Member
TC 8	System aspects of electrical energy supply	O-Member
TC 10	Fluids for electrotechnical applications	O-Member
TC 11	Overhead lines	O-Member
TC 13	Electrical energy measurement and control	O-Member
TC 14	Power transformers	P-Member
TC 15	Solid electrical insulating materials	O-Member
TC 17	High-voltage switchgear and controlgear	O-Member
TC 17/SC 17A	Switching devices	O-Member

TC 17/SC 17C	Assemblies	O-Member
TC 20	Electric cables	O-Member
10 20	Electric cables	O-Member
TC 21	Secondary cells and batteries	O-Member
TC 22	Power electronic systems and equipment	O-Member
TC 22/SC 22G	Adjustable speed electric power drive systems (PDS)	P-Member
TC 23	Electrical accessories	O-Member
TC 23/SC 23B	Plugs, socket-outlets and switches	O-Member
TC 23/SC 23E	Circuit-breakers and similar equipment for household use	P-Member
TC 23/SC 23G	Appliance couplers	O-Member
TC 23/SC 23H	Plugs, Socket-outlets and Couplers for industrial and similar applications, and for Electric Vehicles	O-Member
TC 23/SC 23J	Switches for appliances	O-Member
TC 27	Industrial electroheating and electromagnetic processing	O-Member
TC 31	Equipment for explosive atmospheres	P-Member
TC 31/SC 31G	Intrinsically-safe apparatus	P-Member
TC 31/SC 31J	Classification of hazardous areas and installation requirements	P-Member
TC 31/SC 31M	Non-electrical equipment and protective systems for explosive atmospheres	P-Member
TC 33	Power capacitors and their applications	O-Member
TC 36	Insulators	P-Member
TC 36/SC 36A	Insulated bushings	O-Member
TC 37	Surge arresters	P-Member
TC 37/SC 37A	Low-voltage surge protective devices	O-Member
TC 37/SC 37B	Components for low-voltage surge protection	O-Member
TC 38 TC 40	Instrument transformers	O-Member
TC 42	Capacitors and resistors for electronic equipment High-voltage and high-current test techniques	O-Member O-Member
TC 44	Safety of machinery - Electrotechnical aspects	O-Member
TC 45/SC 45B	Radiation protection instrumentation	O-Member
TC 46	Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories	O-Member
TC 46/SC 46A	Coaxial cables	O-Member
TC 46/SC 46C	Wires and symmetric cables	P-Member
TC 46/SC 46F	RF and microwave passive components	O-Member
TC 47	Semiconductor devices	O-Member
TC 47/SC 47A	Integrated circuits	P-Member
TC 47/SC 47E	Discrete semiconductor devices	P-Member
TC 48	Electrical connectors and mechanical structures for electrical and electronic equipment	O-Member
TC 48/SC 48B	Electrical connectors	O-Member
TC 51	Magnetic components, ferrite and magnetic powder materials	O-Member



TC 56 Dependability Power systems management and associated information exchange Performance of household and similar electrical appliances TC 59/SC 59A Electric dishwashers P-Mem TC 59/SC 59C Electrical heating appliances for household and similar electrical laundry appliances TC 59/SC 59D Performance of household and similar electrical laundry appliances TC 59/SC 59F Surface cleaning appliances O-Mem TC 59/SC 59K Performance of household and similar electrical cooking appliances TC 59/SC 59L Small household appliances O-Mem TC 59/SC 59M Performance of electrical household and similar cooling and freezing appliances TC 61 Safety of household and similar electrical appliances TC 61/SC 61B Safety of microwave appliances for household and commercial use TC 61/SC 61C Safety of refrigeration appliances for household and commercial use TC 61/SC 61D Appliances for air-conditioning for household and similar purposes TC 61/SC 61J Electrical motor-operated farm appliances TC 62/SC 62A Electrical equipment in medical practice P-Mem TC 62/SC 62B Diagnostic imaging equipment O-Mem TC 62/SC 62B Diagnostic imaging equipment O-Mem TC 62/SC 62B Diagnostic imaging equipment O-Mem	ber ber
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TC 62/SC 62D Electromedical equipment P-Mem	ber
TC 64 Electrical installations and protection against electric shock P-Mem	ber
TC 65 Industrial-process measurement, control and automation P-Mem	ber
TC 65/SC 65A System aspects P-Mem	
TC 65/SC 65B Measurement and control devices O-Mem	
TC 65/SC 65C Industrial networks O-Mem	ber
TC 66 Safety of measuring, control and laboratory equipment P-Mem	ber
TC 68 Magnetic alloys and steels O-Mem	
TC 69 Electrical power/energy transfer systems for electrically propelled road vehicles and industrial P-Mem trucks	ber
TC 70 Degrees of protection provided by enclosures O-Mem	
TC 76 Optical radiation safety and laser equipment O-Mem	ber



TC 77	Electromagnetic compatibility	P-Member
TC 77/SC 77A	EMC - Low frequency phenomena	P-Member
TC 77/SC 77B	High frequency phenomena	P-Member
TC 77/SC 77C	High power transient phenomena	O-Member
TC 78	Live working	O-Member
TC 79	Alarm and electronic security systems	P-Member
TC 80	Maritime navigation and radiocommunication equipment and systems	O-Member
TC 81	Lightning protection	O-Member
TC 82	Solar photovoltaic energy systems	P-Member
TC 86	Fibre optics	O-Member
TC 86/SC 86A	Fibres and cables	O-Member
TC 86/SC 86B	Fibre optic interconnecting devices and passive components	O-Member
TC 86/SC 86C	Fibre optic systems and active devices	P-Member
TC 88	Wind energy generation systems	P-Member
TC 94	All-or-nothing electrical relays	O-Member
TC 95	Measuring relays and protection equipment	O-Member
TC 99	Insulation co-ordination and system engineering of high voltage electrical power installations above 1,0 kV AC and 1,5 kV DC	P-Member
TC 100	Audio, video and multimedia systems and equipment	P-Member
TC 101	Electrostatics	P-Member
TC 106	Methods for the assessment of electric, magnetic and electromagnetic fields associated with human exposure	P-Member
TC 108	Safety of electronic equipment within the field of audio/video, information technology and communication technology	P-Member
TC 110	Electronic displays	O-Member
TC 111	Environmental standardization for electrical and electronic products and systems	P-Member
TC 114	Marine energy - Wave, tidal and other water current converters	P-Member
TC 116	Safety of motor-operated electric tools	O-Member
TC 120	Electrical Energy Storage (EES) Systems	P-Member
TC 121	Switchgear and controlgear and their assemblies for low voltage	P-Member
TC 121/SC 121A	Low-voltage switchgear and controlgear	P-Member
TC 121/SC 121B	Low-voltage switchgear and controlgear assemblies	P-Member
TC 122	UHV AC transmission systems	O-Member
TC 124	Wearable electronic devices and technologies	O-Member
PC 127	Low-voltage auxiliary power systems for electric power plants and substations	P-Member
PC 128	Operation of electrical installations	P-Member

CISPR	International special committee on radio interference	P-Member
CISPR/CIS/A	Radio-interference measurements and statistical methods	O-Member
CISPR/CIS/B	Interference relating to industrial, scientific and medical radio-frequency apparatus, to other (heavy) industrial equipment, to overhead power lines, to high voltage equipment and to electric traction	O-Member
CISPR/CIS/D	Electromagnetic disturbances related to electric/electronic equipment on vehicles and internal combustion engine powered devices	O-Member
CISPR/CIS/F	Interference relating to household appliances tools, lighting equipment and similar apparatus	O-Member
CISPR/CIS/H	Limits for the protection of radio services	O-Member
CISPR/CIS/I	Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers	
SyC Smart Energy	Smart Energy	O-Member
ISO/IEC JTC 1/SC 25	Interconnection of information technology equipment	P-Member
ISO/IEC JTC 1/SC 41	Internet of Things and Digital Twin	P-Member

5.2.4 International/Regional Standards Reviewed

International/Regional standards reviewed are provide in respective technical committee (TC) reports.

5.2.5 International/Regional Voting Results

Each of the Technical committees listed in the Electrotechnical Sector have actively voted as listed in their annual reports on relevant IEC and CENELEC documents open for vote. In addition to these votes NSAI have voted on 3 CEN/BT votes as listed below.

Body	Vote Reference	Comments Submitted	Decision
CEN/BT	2021/c071- 12482-CEN/TC 305 - Withdrawal of EN 14522:2005 (WI 00305039)	No	Approve
CEN/BT	2021/c109-12555-CEN-CLC/JTC 10 - Approval of revised title, scope and business plan	No	Approve
CEN/BT	2021/c218-CEN-CLC/JTC 10 - Re-appointment of Chair- 12746	No	Approve

5.3 Regulatory Development/Update

Regulatory developments associated with each ETC TC are provided in respective TC reports

6 Irish Publications/Reviews

6.1 Publications

NSAI adopted the following standards in the electrotechnical area:

- 380 as I.S. EN IEC
- 116 as I.S. EN
- 5 as S.R. CLC/TR
- 9 as S.R. CLC/TS
- 4 as S.R. CLC IEC/TS
- 2 as S.R. CWA
- 2 as S.R. HD
- 2 as S.R. CLC IEC/TR
- 1 as I.S. EN ISO/IEC
- 1 as S.R. CEN/CLC/TR

6.2 Reviews

All review worked carried out by NSAI/ETC Committees has been document in the relevant Annual report within the electrotechnical sector. Each subcommittee reports on review work which they have carried out to the main ETC committee during the meetings conducted throughout the year.

The following documents were reviewed, and it has been decided to withdraw them:

- I.S. 202-10:2003 Cables of rated voltages up to and including 450/750 V and having cross linked insulation Part 10: EPR insulated and polyurethane sheathed flexible cables. To be withdrawn in 2022
- I.S. 270:1988 "Conductors of Insulated Cables" To be withdrawn in 2022
- I.S. 201-5:2001 "Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V Part 5: Flexible Cables (Cords) To be withdrawn in 2022
- The following ETCI document were also reviewed:

ET 101:2008/A3:2018	National Rules for Electrical Installations - Amendment No. 3	
ET 101:2008/AC:2018	National rules for electrical installations	
ET 101:2008+A1&A2	National rules for electrical installations	
ET 107	National rules for inspection and certification of existing electrical installations for reconnection to the distribution system	Withdraw in line with the
ET 204	Code of practice for control systems involving programmable electronic products and systems	ET 101 to I.S. 10101 Transition
ET 205	Guide to the installation of extra-low voltage lighting systems	laid out by
ET 207 - 3rd ed	Guide to national rules for electrical installations	the CRU,
ET 208	Code of practice for the design, selection and erection of LV switchboards for residential applications	31/07/2022
ET 210	Code of practise for the selection and installation of low voltage generators	
ET 211	Code of practise for public lighting installation in residential areas	
ET 206:2009A33:O34	The Management of Electrical Safety at Work	Hand over
ET 206A:2000	Procedural guidelines for working on electrical installations	to HSA
ET 213	Guide to the Basic Principles of Electrical Safety	

ET 215	Guide to the maintenance, inspection and testing of portable equipment (Electrical appliances and tools) in the workplace	
ET 103:2015	National Rules for Electrical Installations Power installations exceeding 1 kV a.c. (1.5 kV d.c.)	Withdrawn 01/11/2019
ET 105:2011	National Rules for Electrical Installations in Potentially Explosive Atmospheres (3rd Edition)	Withdrawn 26/11/2018
ET 201	Code of practice for the design, selection and erection of low voltage switchboards for industrial/commercial applications	Withdrawn 29/05/2020
ET 202	Guide to the selection of electrical apparatus for use in potentially explosive atmospheres	Withdrawn 16/11/2011
ET 209	A recommended maintenance & inspection routine for electrical installations in potentially explosive atmospheres	Withdrawn 16/11/2011

7 Work programme for 2022 onwards

For 2022, NSAI ETC will continue its work in support of the Technical Committees, approve the circulation and publication of new NSAI publications, and provide direction to the Permanent Delegate to the CLC Technical Board. Members will advise NSAI concerning new Work Areas in electrotechnical standardisation and provide oversight in relation to technical committees' use of the ETC Travel Fund.

8 Additional Information

No additional information.