



**NSAI**

# ANNUAL REPORT 2022

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

## Contents

1	Chairman's Statement .....	3
2	Introduction .....	4
3	Scope of TC.....	4
4	Structure and Membership .....	5
4.1	Structure .....	5
4.2	Members .....	5
5	Summary of 2022 Activities .....	6
5.1	National .....	6
5.1.1	Meetings .....	6
5.1.2	National Work.....	6
5.2	International/Regional .....	7
5.2.1	Meetings .....	7
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 .....	14
6	Irish Publications/Reviews.....	14
6.1	Publications .....	14
6.2	Reviews .....	14
7	Work programme for 2023 onwards .....	15
8	Additional Information .....	15

## 1 Chairman's Statement

2022 saw the emergence of the standards world from the Covid pandemic. Much of the standardisation activity is now conducted either online or via hybrid meetings. This provides Ireland with a greater opportunity to participate in standardisation at the highest level without the expense of travelling to far flung locations which present financial and time penalties.

Standardisation has to both follow and at times lead the rapid development of the high technology sector. The United Nations' has identified Sustainable Development Goals; from improving access to clean and affordable energy to supporting sustainable consumption and production. Standards and conformity assessment systems support the achievement of these goals by creating a safer and more sustainable world. The IEC and CENELEC Standards and Conformity Assessment Systems are helping to achieve these goals.

Electrotechnical standardisation plays a central role providing policy advice, shaping regulation and conformity assessment and leading the way for new technology use.

NSAI Electrotechnical Committee (ETC) continued to meet remotely for much of the year. The ETC committees were very active and continue to grow with experts from many Irish companies giving their time and technical expertise to the ETC technical committees to make new technologies possible.

The many standards areas that ETC are involved in are essential to support EU Directives. The European Commission and CENELEC continue to improve the adoption of standards and the process of approval which 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 2022 was 'Carrying the IEC forward into the future' to address the many uncertainties that lay ahead, whether environmental, societal, or economic. IEC President Dr Yinbiao Shu acknowledged, 'Our work is relevant all across the world, making sure that systems are safe and efficient. We connect people and economies.' On the value of standards as tools that help find solutions, he said, 'We must offer our contribution to make our world a better place for everyone.'

The IEC adopted a new Strategic Plan to reflect their core values, vision and mission for the IEC for a safer, more efficient world. It brings together three strategic themes:

- enabling a digital and all-electric society
- fostering a sustainable world
- leading on trust, inclusion and collaboration

The IEC general meeting activities help us to understand the realities of global issues and identify areas for focus that relate to our own national needs.

According to the International Energy Agency (IEA), to reach net zero emissions by 2050, annual clean energy investment worldwide will need to more than triple by 2030. Ireland is a leading country in renewable energy.

The energy crisis during 2022 has highlighted the importance of our indigenous renewable energy supply. This is important to reduce our dependence on imported energy and enables us as a nation to control energy costs. To achieve a net zero target by 2050, a diversity of technologies will be required.

Electrification is the most viable route to reducing our carbon footprint and this is reflected in the activities of the ETC. Our committees are active in the onshore and offshore wind sectors and photovoltaic technologies.

Emerging technologies are required to complement the renewable sources maximising the electricity grid via demand side management and storage systems. Hydrogen use will also be important enabling technology to maximise the use of our electricity resources. The work of ETC committees will enable the continued transition to renewable energy and a clean future.

The National wiring rules I.S. 10101 have seen extensive uptake. There were nearly 15,000 copies of the wiring rules sold since it was published in 2020. NSAI/ETC/TC 2 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. 2023 will be a busy year for this committee as they plan to produce an amendment to I.S. 10101.

The NSAI ETC Committees continue to play a key role in the development of National and International standards, and I look forward to working with you throughout 2023.

John McAuley

Chair of NSAI/ETC Committee

## 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 553 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:

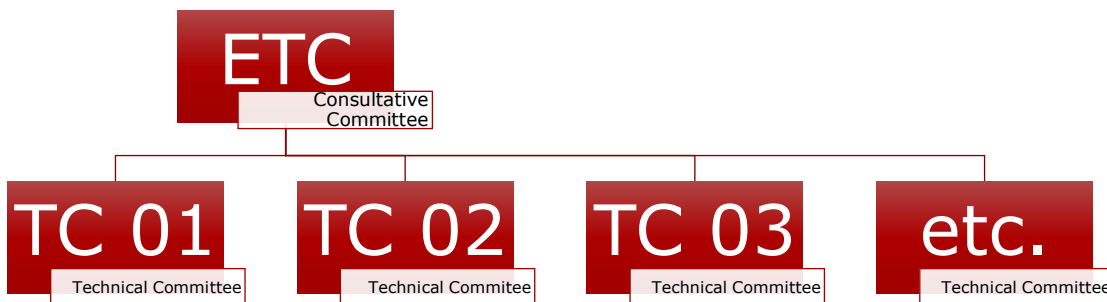
Committee Name	Committee Title
<b>NSAI/ETC/TC 01</b>	Safety of household and similar electrical appliances
<b>NSAI/ETC/TC 02</b>	Electrical Installations
<b>NSAI/ETC/TC 03</b>	Power installations exceeding 1kV (1.5kV dc)
<b>NSAI/ETC/TC 04</b>	Switchgear, control gear and associated equipment
<b>NSAI/ETC/TC 06</b>	Equipment for potentially explosive atmospheres
<b>NSAI/ETC/TC 10</b>	Electrical equipment in medical practice
<b>NSAI/ETC/TC 11</b>	Safety of Electronic Equipment within the field of Audio/Video, Information Technology and Communication Technology
<b>NSAI/ETC/TC 12</b>	Electronic Communications Systems
<b>NSAI/ETC/TC 13</b>	Alarm systems
<b>NSAI/ETC/TC 14</b>	Electric cables
<b>NSAI/ETC/TC 15</b>	Human exposure to electromagnetic fields
<b>NSAI/ETC/TC 16</b>	Electromagnetic Compatibility
<b>NSAI/ETC/TC 18</b>	Marine energy - Wave, tidal and other water current converters

<b>NSAI/ETC/TC 20</b>	Smart Grids, Renewables, Electric Vehicles and Energy Efficiency
<b>NSAI/ETC/TC 21</b>	Electrostatics
<b>NSAI/ETC/TC 22</b>	Environmental Standardization for Electrical and Electronic Products and Systems
<b>NSAI/ETC/RCDTF</b>	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:

<b>National CHAIR</b>	CEI	Compliance Engineering Ireland Ltd.
<b>National PRESIDENT</b>	NSAI	National Standards Authority of Ireland
<b>National SECRETARY</b>	NSAI	National Standards Authority of Ireland
<b>ASSISTANT SECRETARY</b>	NSAI	National Standards Authority of Ireland
National committee member	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
		Eir
		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
	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 2022 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	3 <sup>rd</sup> February 2022	<a href="#">N0140</a>
2	5 <sup>th</sup> of May 2022	<a href="#">N0151</a>
3	6 <sup>th</sup> of October 2022	<a href="#">N0172</a>

NSAI/ETC/WG 01 "HV & LV earthing Systems" attended the following meetings:

Meeting No.	Date	Minutes Reference
1	8 <sup>th</sup> November 2022	<a href="#">N0010</a>
2	22 <sup>nd</sup> November 2022	<a href="#">N0015</a>
3	20 <sup>th</sup> December 2022	<a href="#">N0027</a>

#### 5.1.2 National Work

Highlights and decisions for 2022 included:

- Three national meetings via MS Teams for NSAI, meaning a total of eighteen meetings have now taken place since the formation of the ETC on the 20<sup>th</sup> March 2017.
- The Committee agreed to set up a new WG
  - NSAI/ETC/WG 01 "Adjacent HV & LV earthing systems"
- The committee approved the Business plan for NSAI/ETC/TC 02.
- The committee agreed to the extension of the scope of NSAI/ETC/TC 03.
- 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
170 <sup>th</sup> CENELEC BT	Virtual	8 <sup>th</sup> February	1
171 <sup>st</sup> CENELEC BT	Stockholm Sweden	5 <sup>th</sup> & 6 <sup>th</sup> May	1
172 <sup>nd</sup> CENELEC BT	Cyprus	19 <sup>th</sup> & 20 <sup>th</sup> October	1
86 <sup>th</sup> IEC General meeting	San Francisco	31 <sup>st</sup> October – 4 <sup>th</sup> November	7

### 5.2.2 International/Regional Work

Highlights for 2022 included:

- NSAI/ETC set up a WG to look at adjacent HV & LV earthing Systems NSAI/ETC/WG 01.
- NSAI/ETC/TC 01 continue to contribute to the work of IEC TC 61 & CLC TC 61, and also IEC TC 59 & CLC TC 59. Members attended IEC meetings and contributed to the development of international standards in the area of electrical air cleaners.
- NSAI/ETC/TC 02 continue to review the revised HD in the 60365 series. The Working Group NSAI/ETC/TC 02/WG 03 EV Charging Point proposed an amendment to Part 722 of I.S. 10101.
- NSAI/ETC/TC 03 participated at both IEC & CLC meetings. A Member of the committee continues in the role of convenor of IEC/PC/128/WG 1 with other members joining this WG.
- 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 and attended a week of meeting in the San Francisco. The WG within this committee continue to try to produce guidance which is hosted on the HSA website. The Subcommittee NSAI/ETC/TC 06/SC 01 are very active in CEN/TC 305 and participate on some WGs within this TC.
- NSAI/ETC/TC 10 continue to contribute to the work of IEC TC 62 and CLC TC 62 and attended CENELEC TC 62 meetings.
- NSAI/ETC/TC 11 supported the CDV of the 4<sup>th</sup> edition of IEC 62368-1. Committee chair, Peter Kelleher, has the role of chairperson of CENELEC TC 108X and they are currently working on the 4<sup>th</sup> edition of EN 62368.
- NSAI/ETC/TC 12 continues to participate in IEC TC 46, IEC TC 86, & IEC TC 100.
- NSAI/ETC/TC 13 continues to participate in CENELEC TC 79 and is also following the work of IEC TC 79.
- NSAI/ETC/TC 15 welcomed new chair, Paul Reilly. Members continue to attend meetings of IEC TC 106 & CENELEC TC 106X.
- NSAI/ETC/TC 14 N/A
- 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 appointed Kevin O'Connor as the new Chair at the end of 2022. The scope of this committee will be reviewed early in 2023 to reflect the interests of the committee members.
- NSAI/ETC/TC 21 that reformed in 2021 have held 4 meetings in 2022 and are actively engaging with IEC and CLC work.
- 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 but have had a number of membership changes in 2022 and are currently seeking a new chair.
- NSAI continue to be represented at the CENELEC Technical Board (BT).
- The IEC Young Professionals Programme took place this year in San Francisco during the General meeting and NSAI sent two representatives from Ireland.
- NSAI are members of the IEC Forum Organising committee.
- NSAI attended the IEC Forum during the General meeting in San Francisco.
- NSAI had 3 technical experts who travelled to San Francisco for technical meetings during the General meeting.

### 5.2.3 IEC P & O Membership Status

In 2022 NSAI Membership status was changed from an Observer member to a Participating Member on the following 6 technical committees.

Committee	Description
<b>IEC/TC 1</b>	Terminology
<b>IEC/TC 8</b>	System aspects of electrical energy supply
<b>IEC/TC 44</b>	Safety of machinery - Electrotechnical aspects
<b>IEC/TC 47</b>	Semiconductor devices
<b>IEC/TC 48</b>	Electrical connectors and mechanical structures for electrical and electronic equipment
<b>IEC/TC 57</b>	Power systems management and associated information exchange

In 2022 NSAI joined the following 6 technical committees

Committee	Description
<b>IEC/TC 115</b>	High Voltage Direct Current (HVDC) transmission for DC voltages above 100 Kv (P member)
<b>SyC SET</b>	Sustainable Electrified Transportation (O member)
<b>TC 8/SC 8A</b>	Grid Integration of Renewable Energy Generation (P member)
<b>TC 8/SC 8B</b>	Decentralized electrical energy systems (P member)
<b>TC 8/SC 8C</b>	Network Management in Interconnected Electric Power Systems (P member)
<b>TC 59/SC 59N</b>	Electrical air cleaners for household and similar purposes (P member)

In 2022 NSAI Membership status was changed from a Participation member to an Observer Member on the following 2 technical committees.

Committee	Description
<b>IEC/TC 46/SC 46C</b>	Wires and symmetric cables
<b>IEC/TC 86/SC 86C</b>	Fibre optic systems and active devices

NSAI are currently a P "Participating" member to 59 IEC Technical committees and an O "Observer" member in 71 IEC Technical Committees. Total 130

Committee	Description	Status
<b>TC 1</b>	Terminology	P-Member
<b>TC 2</b>	Rotating machinery	O-Member
<b>TC 4</b>	Hydraulic turbines	O-Member
<b>TC 5</b>	Steam turbines	O-Member
<b>TC 7</b>	Overhead electrical conductors	O-Member
<b>TC 8</b>	System aspects of electrical energy supply	P-Member
<b>TC 8/SC 8A</b>	Grid Integration of Renewable Energy Generation	P-Member



<b>TC 8/SC 8B</b>	Decentralized electrical energy systems	P-Member
<b>TC 8/SC 8C</b>	Network Management in Interconnected Electric Power Systems	P-Member
<b>TC 10</b>	Fluids for electrotechnical applications	O-Member
<b>TC 11</b>	Overhead lines	O-Member
<b>TC 13</b>	Electrical energy measurement and control	O-Member
<b>TC 14</b>	Power transformers	P-Member
<b>TC 15</b>	Solid electrical insulating materials	O-Member
<b>TC 17</b>	High-voltage switchgear and controlgear	O-Member
<b>TC 17/SC 17A</b>	Switching devices	O-Member
<b>TC 17/SC 17C</b>	Assemblies	O-Member
<b>TC 20</b>	Electric cables	O-Member
<b>TC 21</b>	Secondary cells and batteries	O-Member
<b>TC 22</b>	Power electronic systems and equipment	O-Member
<b>TC 22/SC 22G</b>	Adjustable speed electric power drive systems (PDS)	P-Member
<b>TC 23</b>	Electrical accessories	O-Member
<b>TC 23/SC 23B</b>	Plugs, socket-outlets and switches	O-Member
<b>TC 23/SC 23E</b>	Circuit-breakers and similar equipment for household use	P-Member
<b>TC 23/SC 23G</b>	Appliance couplers	O-Member
<b>TC 23/SC 23H</b>	Plugs, Socket-outlets and Couplers for industrial and similar applications, and for Electric Vehicles	O-Member
<b>TC 23/SC 23J</b>	Switches for appliances	O-Member
<b>TC 27</b>	Industrial electroheating and electromagnetic processing	O-Member
<b>TC 31</b>	Equipment for explosive atmospheres	P-Member
<b>TC 31/SC 31G</b>	Intrinsically-safe apparatus	P-Member
<b>TC 31/SC 31J</b>	Classification of hazardous areas and installation requirements	P-Member
<b>TC 31/SC 31M</b>	Non-electrical equipment and protective systems for explosive atmospheres	P-Member
<b>TC 33</b>	Power capacitors and their applications	O-Member
<b>TC 36</b>	Insulators	P-Member
<b>TC 36/SC 36A</b>	Insulated bushings	O-Member
<b>TC 37</b>	Surge arresters	P-Member
<b>TC 37/SC 37A</b>	Low-voltage surge protective devices	O-Member
<b>TC 37/SC 37B</b>	Components for low-voltage surge protection	O-Member
<b>TC 38</b>	Instrument Transformers	O-Member
<b>TC 40</b>	Capacitors and resistors for electronic equipment	O-Member
<b>TC 42</b>	High-voltage and high-current test techniques	O-Member
<b>TC 44</b>	Safety of machinery - Electrotechnical aspects	P-Member
<b>TC 45/SC 45B</b>	Radiation protection instrumentation	O-Member
<b>TC 46</b>	Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories	O-Member
<b>TC 46/SC 46A</b>	Coaxial cables	O-Member
<b>TC 46/SC 46C</b>	Wires and symmetric cables	O-Member
<b>TC 46/SC 46F</b>	RF and microwave passive components	O-Member

<b>TC 47</b>	Semiconductor devices	P-Member
<b>TC 47/SC 47A</b>	Integrated circuits	P-Member
<b>TC 47/SC 47E</b>	Discrete semiconductor devices	P-Member
<b>TC 48</b>	Electrical connectors and mechanical structures for electrical and electronic equipment	P-Member
<b>TC 48/SC 48B</b>	Electrical connectors	O-Member
<b>TC 51</b>	Magnetic components, ferrite and magnetic powder materials	O-Member
<b>TC 56</b>	Dependability	P-Member
<b>TC 57</b>	Power systems management and associated information exchange	P-Member
<b>TC 59</b>	Performance of household and similar electrical appliances	P-Member
<b>TC 59/SC 59A</b>	Electric dishwashers	P-Member
<b>TC 59/SC 59C</b>	Electrical heating appliances for household and similar purposes	P-Member
<b>TC 59/SC 59D</b>	Performance of household and similar electrical laundry appliances	O-Member
<b>TC 59/SC 59F</b>	Surface cleaning appliances	O-Member
<b>TC 59/SC 59K</b>	Performance of household and similar electrical cooking appliances	P-Member
<b>TC 59/SC 59L</b>	Small household appliances	O-Member
<b>TC 59/SC 59M</b>	Performance of electrical household and similar cooling and freezing appliances	O-Member
<b>TC 59/SC 59N</b>	Electrical air cleaners for household and similar purposes	P-Member
<b>TC 61</b>	Safety of household and similar electrical appliances	P-Member
<b>TC 61/SC 61B</b>	Safety of microwave appliances for household and commercial use	O-Member
<b>TC 61/SC 61C</b>	Safety of refrigeration appliances for household and commercial use	O-Member
<b>TC 61/SC 61D</b>	Appliances for air-conditioning for household and similar purposes	O-Member
<b>TC 61/SC 61H</b>	Safety of electrically-operated farm appliances	O-Member
<b>TC 61/SC 61J</b>	Electrical motor-operated cleaning appliances for commercial use	O-Member
<b>TC 62</b>	Medical equipment, software, and systems	P-Member
<b>TC 62/SC 62A</b>	Common aspects of medical equipment, software, and systems	P-Member
<b>TC 62/SC 62B</b>	Medical imaging equipment, software, and systems	O-Member
<b>TC 62/SC 62C</b>	Equipment for radiotherapy, nuclear medicine and radiation dosimetry	O-Member
<b>TC 62/SC 62D</b>	Particular medical equipment, software, and systems	P-Member
<b>TC 64</b>	Electrical installations and protection against electric shock	P-Member
<b>TC 65</b>	Industrial-process measurement, control and automation	P-Member
<b>TC 65/SC 65A</b>	System aspects	P-Member
<b>TC 65/SC 65B</b>	Measurement and control devices	O-Member

<b>TC 65/SC 65C</b>	Industrial networks	O-Member
<b>TC 66</b>	Safety of measuring, control and laboratory equipment	P-Member
<b>TC 68</b>	Magnetic alloys and steels	O-Member
<b>TC 69</b>	Electrical power/energy transfer systems for electrically propelled road vehicles and industrial trucks	P-Member
<b>TC 70</b>	Degrees of protection provided by enclosures	O-Member
<b>TC 76</b>	Optical radiation safety and laser equipment	O-Member
<b>TC 77</b>	Electromagnetic compatibility	P-Member
<b>TC 77/SC 77A</b>	EMC - Low frequency phenomena	P-Member
<b>TC 77/SC 77B</b>	High frequency phenomena	P-Member
<b>TC 77/SC 77C</b>	High power transient phenomena	O-Member
<b>TC 78</b>	Live working	O-Member
<b>TC 79</b>	Alarm and electronic security systems	P-Member
<b>TC 80</b>	Maritime navigation and radiocommunication equipment and systems	O-Member
<b>TC 81</b>	Lightning protection	O-Member
<b>TC 82</b>	Solar photovoltaic energy systems	P-Member
<b>TC 86</b>	Fibre optics	O-Member
<b>TC 86/SC 86A</b>	Fibres and cables	O-Member
<b>TC 86/SC 86B</b>	Fibre optic interconnecting devices and passive components	O-Member
<b>TC 86/SC 86C</b>	Fibre optic systems and active devices	O-Member
<b>TC 88</b>	Wind energy generation systems	P-Member
<b>TC 94</b>	Electrical relays	O-Member
<b>TC 95</b>	Measuring relays and protection equipment	O-Member
<b>TC 99</b>	Insulation co-ordination and system engineering of high voltage electrical power installations above 1,0 kV AC and 1,5 kV DC	P-Member
<b>TC 100</b>	Audio, video and multimedia systems and equipment	P-Member
<b>TC 101</b>	Electrostatics	P-Member
<b>TC 106</b>	Methods for the assessment of electric, magnetic and electromagnetic fields associated with human exposure	P-Member
<b>TC 108</b>	Safety of electronic equipment within the field of audio/video, information technology and communication technology	P-Member
<b>TC 110</b>	Electronic displays	O-Member
<b>TC 111</b>	Environmental standardization for electrical and electronic products and systems	P-Member
<b>TC 114</b>	Marine energy - Wave, tidal and other water current converters	P-Member
<b>TC 115</b>	High Voltage Direct Current (HVDC) transmission for DC voltages above 100 kV	P-Member
<b>TC 116</b>	Safety of motor-operated electric tools	O-Member
<b>TC 120</b>	Electrical Energy Storage (EES) Systems	P-Member
<b>TC 121</b>	Switchgear and controlgear and their assemblies for low voltage	P-Member
<b>TC 121/SC 121A</b>	Low-voltage switchgear and controlgear	P-Member

<b>TC 121/SC 121B</b>	Low-voltage switchgear and controlgear assemblies	P-Member
<b>TC 122</b>	UHV AC transmission systems	O-Member
<b>TC 124</b>	Wearable electronic devices and technologies	O-Member
<b>PC 127</b>	Low-voltage auxiliary power systems for electric power plants and substations	P-Member
<b>PC 128</b>	Operation of electrical installations	P-Member
<b>CISPR</b>	International special committee on radio interference	P-Member
<b>CISPR/CIS/A</b>	Radio-interference measurements and statistical methods	O-Member
<b>CISPR/CIS/B</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
<b>CISPR/CIS/D</b>	Electromagnetic disturbances related to electric/electronic equipment on vehicles and internal combustion engine powered devices	O-Member
<b>CISPR/CIS/F</b>	Interference relating to household appliances tools, lighting equipment and similar apparatus	O-Member
<b>CISPR/CIS/H</b>	Limits for the protection of radio services	O-Member
<b>CISPR/CIS/I</b>	Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers	P-Member
<b>SyC SET</b>	Sustainable Electrified Transportation	O-Member
<b>SyC Smart Energy</b>	Smart Energy	O-Member
<b>ISO/IEC JTC 1/SC 25</b>	Interconnection of information technology equipment	P-Member
<b>ISO/IEC JTC 1/SC 41</b>	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 37 CEN/BT votes as listed below.

Body	Vote Reference	Comments Submitted	Decision
CEN/BT	CEN/TC 136 - 2nd Tolerance Request for EN 17229-2 (WI 00136450)	No	Approve
CEN/BT	CEN/TC 88 - Revision of EN 16977 - Request for derogation from the five-members rule- 12800	Yes	Abstain
CEN/BT	CEN/TC 215 - Withdrawal of EN ISO 15002:2008/A1:2019-12798	No	Approve
CEN/BT	CEN-CLC position paper on the EC Action Plan on the civil, defence and space sectors- 12794	No	Approve

CEN/BT	2021/c260-CEN/TC 454 - Approval of technical change after FV and prior to publication- 12821	No	Approve
CEN/BT	2021/c256-SFG-I - Report to BT and revised Terms of Reference (ToR)- 12808	No	Approve
CEN/BT	2022/c008-ASD-STAN - Withdrawal of ENs- 12839	No	Approve
CEN/BT	2022/c011-CEN/TC 450 - Request to declare dormant- 12850	No	Approve
CEN/BT	2021/c259-File attachments to deliverables- 12817	Yes	Disapprove
CEN/BT	2022/c010: CEN/TC 343 - Change of title and scope- 12846	No	Approve
CEN/BT	2022/c009: CEN/TC 19 - Request for A-deviation for EN 16734- 12843	No	Approve
CEN/BT	2021/c264: CEN-CENELEC Internal Regulations - Part 3 - new edition-12829	No	Approve
CEN/BT	2022/c015: CEN/TC 216 - Request to remove link to MDR from FprEN 14885-12854	No	Approve
CEN/BT	2021/c257: Access to normative references for Annex III Organizations-12809	No	Approve
CEN/BT	2022/c017: CEN/TC 428 - Approval of revised BP	No	Approve
CEN/BT	2022/c020: CEN-CLC/JTC 3 - Request to stop the publication of EN ISO 15223-1:2016/FprA11	No	Approve
CEN/BT	2022/c031: Final draft SReq on 'Alternative fuels infrastructure' (AFI II) - BTs Vote	No	Approve
CEN/BT	2022/c032: Final draft SReq - Refrigerating appliances with a direct sales function - ecodesign - BT vote	No	Approve
CEN/BT	2022/c036: CEN-CLC/SF Machinery - Report of meeting and approval of guidance for Annex Z in hENs	No	Approve
CEN/BT	2022/c042: New CEN-CLC-ETSI Joint Technical Body on RED Cybersecurity - creation	No	Approve
CEN BT	2022/c006: New CEN/TC on Quality in Medical Imaging along the patient pathway	No	Approve
CEN BT	2022/c056: CEN-CLC/JTC 10 - Coordination with CEN-CLC product TCs	No	Approve
CEN BT	2022/c053: CEN-CLC/JTC 13 - NWI request	No	Approve
CEN BT	2022/c054: CEN-CLC/JTC 13 - NWI request	No	Approve
CEN BT	2022/c055: CEN-CLC/JTC 13 - NWI request	No	Approve
CEN BT	2022/c061: CEN/TC 102 - Approval of Annex ZA after Formal Vote EN ISO 11607 Series	No	Approve
CEN BT	2022/c065: CEN/TC 409 - Request to declare dormant	No	Approve
CEN BT	2022/c063: Final draft Standardization Request on Pyrotechnic articles in support of Directive 2013/29/EU - CEN/BT vote	No	Approve
CEN BT	2022/c062: CEN-CLC/FG OoC - Appointment of Chair & ToR	No	Approve
CEN/BT	2022/c068: CEN-CLC/BTWG 14 - Request for A-deviations/SNCs after formal vote or publication	No	Approve
CEN/BT	2022/c069: CEN-CLC/BTWG 14 - Request for Annex ZA/ZZ and normative references in hENs after vote or publication	No	Approve
CEN/BT	2022/c070: CEN-CLC/BTWG 12 - Approval of guidance on normative references in hENs	No	Approve
CEN/BT	2022/c074: CEN-CLC/SF Machinery - Informative Annex ZA under Machinery Directive - tool for TCs	No	Approve

CEN/BT	2022/c077: CEN-CLC/SF Machinery - Appointment of Chair	No	Approve
CEN/BT	2022/c079: CEN-CLC/eMCG - New ToR	No	Approve
CEN/BT	2022/c080: CEN-CLC/eMCG - Vice-Chair	No	Approve
CEN/BT	2022/c073: CEN/TC 286 - FprEN 12252 - Technical changes after FV	No	Approve
CLC/BTTF 116-2	prEN 50436-1: N/a	Yes	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:

- 325 as I.S. EN IEC
- 106 as I.S. EN
- 2 as NSAI/CLC/TR
- 24 as NSAI/CEN/CLC/TR
- 5 as NSAI/CLC/TS
- 1 as NSAI/CEN/CLC/TS
- 3 as NSAI/CWA
- 6 as NSAI/HD
- 6 as I.S. EN ISO/IEC

### 6.2 Reviews

All review work carried out by NSAI/ETC Committees has been documented in the relevant Annual report within the electrotechnical sector. Each subcommittee reports on the 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:

ET 101:2008/A3:2018	National Rules for Electrical Installations - Amendment No. 3	Withdraw 31/07/2022
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	
ET 204	Code of practice for control systems involving programmable electronic products and systems	
ET 205	Guide to the installation of extra-low voltage lighting systems	
ET 207 - 3rd ed	Guide to national rules for electrical installations	
ET 208	Code of practice for the design, selection and erection of LV switchboards for residential applications	

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	Withdrawn 31/07/2022 & Hand over to HSA
ET 206A:2000	Procedural guidelines for working on electrical installations	
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 2023 onwards

For 2023, 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.