



ANNUAL REPORT 2023

NSAI TECHNICAL COMMITTEE
NSAI/ETC/TC 20 - "SMART GRIDS,
RENEWABLES, ELECTRIC VEHICLES
AND ENERGY EFFICIENCY"

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1 Chair Statement

The Chairman expresses his thanks and appreciation to all members of NSAI/ETC/TC 20 for their participation, support and contributions to the work of NSAI/ETC/TC 20.

The Chairman proposes to focus the 2024 work programme for the committee on a targeted number of standards, given the vast number of standards that are under the committee's scope.

2 Introduction

NSAI/ETC/TC 20 was established as a National Mirror Committee to mirror the work of several European and international standards committees in the area of Smart Grids, Renewables, Electric Vehicles and Energy Efficiency. The list of committees currently being followed in full or in part is listed in paragraph 3.

3 Scope of TC

The scope of NSAI/ETC/TC 20 is to follow and contribute to the work of the CENELEC and IEC committees listed below.

Committee Name	Committee Title
CENELEC TC 8X	Systems aspects of electrical energy supply
IEC TC 8	Systems aspects of electrical energy supply
IEC TC 8/SC 8A	Grid Integration of Renewable Energy Generation
IEC TC 8/SC 8B	Decentralized electrical energy systems
CENELEC TC 13	Electrical energy measurement and control
CENELEC TC 21X	Secondary cells and batteries
CENELEC TC 22X	Power electronics
CENELEC TC 57	Power systems management and associated information exchange
IEC TC 57	Power systems management and associated information exchange
CENELEC TC 69X	Electric systems for electric road vehicles
IEC TC 69	Electrical power/energy transfer systems for electrically propelled road vehicles and industrial trucks
CENELEC TC 72	Automatic electrical controls
CENELEC TC 82	Solar photovoltaic energy systems
CENELEC TC 88	Wind Energy
IEC TC 88	Wind Energy
CENELEC TC 95X	Measuring relays and protection equipment
IEC TC 95	Measuring relays and protection equipment
IEC TC 120	Electrical Energy Storage (EES) Systems
CEN-CENELEC-ETSI CG-SG	CEN-CLC-ETSI Co-ordination Group on Smart Grids and Smart Meters
IEC SyC SET	Sustainable Electrified Transportation

4 Structure and Membership

4.1 Structure

The Figure below illustrates the structure of the Committee:



4.2 Member Organisations

The list below are the member organisations for the year 2023:

Organisation	Role
ESB	Chairperson
NSAI	Secretary
Analog Devices International	Committee Member
BrightWind Analysis	Committee Member
CIMple Data	Committee Member
Cork Institute of Technology	Committee Member
DNV	Committee Member
DP Energy	Committee Member
Dundalk Institute of Technology	Committee Member
EirGrid	Committee Member
Electric Power Research Institute	Committee Member
Eninserv	Committee Member
ESB	Committee Member
Evhacs	Committee Member
Glen Dimplex	Committee Member
Hitachi Energy	Committee Member
NUI Galway	Committee Member
Renewable Power Generation Limited	Committee Member
RPS Group	Committee Member
Sustainable Energy Authority of Ireland	Committee Member
Technical University Dublin	Committee Member
Tomas Blodau Wind Energy Consultancy	Committee Member
TU Dublin	Committee Member
Utility Consultancy Partners	Committee Member

5 Summary of 2023 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	24 February 2023	N697
2	22 June 2023	N710
3	03 October 2023	N740

5.2 International/Regional

5.2.1 Meetings

Committee members attended meetings as follows:

Committee Name	Location	Date	No. of Attendees
IEC TC 69/WG 12	Virtual	27 January 2023	1
IEC TC 57/WG 13	Virtual	14-17 February 2023	1
IEC SyC SET	Berlin	22-24 March 2023	1
IEC TC 69/WG 12	Virtual	21 April 2023	1
CENELEC TC 69X	Virtual	16 May 2023	
IEC TC 57/WG 13	Oslo, Norway	13-15 June 2023	1
IEC TC 69/WG 12	Virtual	15 September 2023	1
IEC SyC SET	Virtual	19-21 September 2023	1
IEC TC 57/WG 13	Minneapolis, MN, USA	24-27 October 2023	1
CLC TC 8X	Brussels	24 November 2023	1
IEC TC 88 / PT 61400-15	Virtual	Bimonthly meetings 2023	1
IEC TC 88 / PT 61400-16	Virtual	Bimonthly meetings 2023	1

5.2.2 International/Regional Work

Ireland is following and contributing to the development of a number of Standards and Technical Specifications associated with the electrotechnical aspects of Smart and Renewable Energy. Some of the members are participating directly in working groups and project teams within the technical committees.

Members of NSAI/ETC/TC 20 are actively involved in standards development work at International and European level.

5.2.3 International/Regional Standards Reviewed

IEC 61970-302	Energy management system application program interface (EMS-API) – Part 302: Common information model (CIM) dynamics
FprEN IEC 61970-302:2023	Energy management system application program interface (EMS-API) – Part 302: Common information model (CIM) dynamics
IEC 61970-457	Energy management system application program interface (EMS-API) – Part 457: Dynamics profile
FprEN IEC 61970-457:2023	Energy management system application program interface (EMS-API) – Part 457: Dynamics profile
IEC 62501	Voltage sourced converter (VSC) valves for high-voltage direct current (HVDC) power transmission - Electrical testing
IEC 62933-5-3	Electrical energy storage (EES) systems Part 5-3: Safety requirements when performing unplanned modification of electrochemical based EES systems
IEC 63382-1	Management of Distributed Energy Storage Systems based on Electrically Chargeable Vehicles (ECV-DESS) - Part 1: Definitions, Requirements and Use Cases
IEC 63110-1	Protocol for management of electric vehicles charging and discharging infrastructures - Part 1: Basic definitions, use cases and architectures
IEC TR 63460	Electric Vehicles (EV) as Distributed Energy Resources (DER): Use Cases and Data Models for EVs Providing Grid Support Functions
IEC TR 61850-1	Communication networks and systems for power utility automation - Part 1: Introduction and overview
IEC TR 63353	IIoT applications in power distribution systems management: Architecture and functional requirements
IEC 61400-15-1	Wind energy generation systems - Part 15-1: Site suitability input conditions for wind power plants
IEC 61400-16	Standard file format for sharing power curve information

5.2.4 International/Regional Voting Results

The committee voted on 10 international ballots in 2023.

5.3 Regulatory Development/Update

There are no current European Regulations applicable to the suite of Standards being developed.

6 Irish Publications/Reviews

6.1 Publications

The Committee did not publish any deliverables this year.

6.2 Reviews

The Committee did not review any Irish national deliverables.

7 Work programme for 2024 onwards

The committee will continue to review its scope and structure in 2024 with a view to prioritising certain areas. The current workstreams have been agreed:

- a. Power systems management and associated information exchange – CLC/TC 57 and IEC/TC 57
- b. Electric Road Vehicles – CLC/TC 69X and IEC/TC 69
- c. Wind Energy – CLC/TC 88 and IEC/TC 88
- d. System aspects of electrical energy supply – CLC/TC 8X and IEC/TC 8
- e. Electrical Energy Storage (EES) systems – IEC/TC 120