



NSAI

ANNUAL REPORT 2019

GAS TECHNICAL STANDARDS COMMITTEE

1 Introduction

The work of NSAI/TC 01 Gas Technical Standards Committee (GTSC), covers all aspects of the supply and usage of natural gas and liquefied petroleum gas (LPG). The membership of the committee is composed of key stakeholders/collective bodies that provide an authoritative and representative voice or policy role in the gas sector. GTSC members contribute their knowledge and expertise on a voluntary basis and advises the NSAI on what Irish standards and Codes of Practice are necessary for products and processes used in the gas industry, with particular regard to safety. The GTSC also supports the development of European (CEN) and International (ISO) gas related standards.

In 2019, the GTSC welcomed 6 new members to the various committees and regretfully saw the resignation of 6 members of the GTSC, including two long standing members, having participated in GTSC work for 20 years. This year, a total of 54 experts, including outgoing members, participated in the work of the GTSC.

The GTSC had 32 national meetings, over 40 Irish, European and International standards were reviewed and continued developing 3 national standards.

The GTSC monitors and participates in the work of 40 CEN and CENELEC Technical Bodies, (including working groups) and 6 ISO Technical Bodies, (including sub-committees and working groups).

2019 saw the publication of I.S. 820, *Non-domestic gas installations Edition 3*, which will support the CRU's extension of the mandatory gas installer registration scheme to apply to non-domestic gas installers.

Work also continued in the revision of two standards, with the public enquiry of I.S. 3213, *Code of Practice for the storage of LPG cylinders and cartridges*, produced by TC 8, and the continued drafting of I.S. 328:1 and 2, *Gas transmission pipelines and pipeline installations*, produced by TC 5.

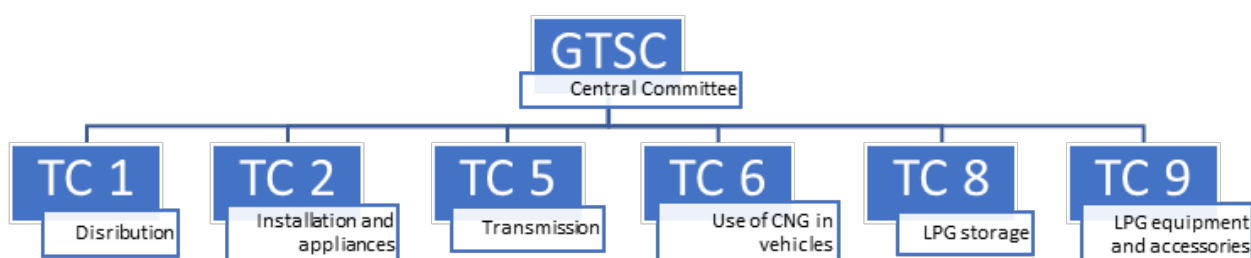
2 Scope of the Gas Technical Standards Committee (GTSC)

- To advise the NSAI with regard to Irish Standards and Codes of Practice necessary for the transmission, distribution and utilisation of Natural Gas and LP gas, with particular regard to safety and to make recommendations as required;
- To draft appropriate documentation including Standards, Codes of Practice, Amendments and Safety Recommendations as necessary;
- To ensure that interested parties are consulted in the drafting of these Standards and Codes of Practice;
- To liaise with similar bodies in other EU countries and in particular CEN (European Committee for Standardisation) and ISO (International Organisation for Standardisation); and
- To advise NSAI on how to vote on draft European and International Standards.

3 Structure and Membership

3.1 Structure

The GTSC is made up of a Central Committee governing 6 sub-committees as illustrated in the Figure below:



3.2 Members

The list below are the members for the year:

The GTSC Committees

The members of the GTSC participate on the committees as voluntary experts representing their associations and companies.

CENTRAL COMMITTEE (CC)

The Central Committee oversees the activities of each Technical Committee.
The Central Committee convened 3 Plenary Meetings in 2019.

Mr. Liam Nolan, Chairman (incoming)
Gas Networks Ireland

Ms. Alice Hanly, Technical Secretary
NSAI

Mr. Phillip Connolly,
Department of Communications, Climate Action
and Environment

Ms. Alice Doherty
Health and Safety Authority

Mr. Chris Barry
Department of Environment, Community and Local
Government

Mr. James Burchill, GTSC TC 1 Chairman
Gas Networks Ireland

Mr. Liam Doyle, GTSC TC 2 Chairman
ILPGA

Mr. PJ. Rudden, GTSC TC 5 Chairman
RPS Group Ltd

Mr. Emmet Cregan, GTSC TC6 Chairman
Gas Networks Ireland

Mr. Gareth Doran, GTSC TC 8 Chairman
Calor gas

Mr. Paul O'Connell, GTSC TC 9 Chairman
Flogas Ireland Ltd

Note: There is an open invitation for all Chairmen
of the TC's to attend the CC.

TC1 - Distribution

TC1 draws up national standards in the areas of services, distribution, PE pipe and fittings, and regulators up to 16 bar.

The Technical Committee held 4 meetings in 2019.

Mr. James Burchill, Chairman
Gas Networks Ireland

Ms. Alice Hanly, Technical Secretary
NSAI

Mr. Liam Doyle
ILPGA

Mr. Michael Downey
Jacobs Engineering

Mr. Mark O'Reilly (outgoing)
Gas Networks Ireland

Mr. Dermot Killeen
Calor Gas

Mr. Rory Somers (outgoing)
Gas Networks Ireland

Mr. Aidan Toher
Gas Networks Ireland

Mr. Conor Manning
Quality Plastics Ltd

Mr. Michael Crowley
Gas Networks Ireland

Mr. Gearoid Hayes (outgoing)
Gas Networks Ireland

Mr. Michael Gill
Pipe life

Mr. Kevin Murphy
Gas Networks Ireland

Mr. Shane Geraghty
Gas Networks Ireland

Mr. James Garvey
AEC

Mr. Ray Coey
Commission for Regulation of Utilities (CRU)

TC2 - Installation and Appliances

TC2 draws up national standards for natural gas and LP Gas installations in domestic and non-domestic premises. It also drafts standards for gas appliances.

The Technical Committee held 9 meetings in 2019.

Mr. Liam Doyle, Chairman

ILPGA

Ms. Alice Hanly, Technical Secretary

NSAI

Mr. Paul Cleary

Gas Networks Ireland

Mr. Kevin Collins

Consultant

Mr. Ciaran Costelloe

Flogas Ireland Ltd

Mr. Barry Grouse

Gas Networks Ireland

Mr. Dermot Killeen

Calor Gas

Mr. Alan Duke

Gas Networks Ireland

Mr. Ed McDonnell

RGII

Mr. Pat O'Shaughnessy

Heating Contractor

Mr. Sean Smith

Department of Jobs, Enterprise and Innovation

Mr. Sean McGinley (outgoing)

RGII

Mr. Tony Gordon

Bord Gáis Energy

Mr. Chris Ahearne

Installer Review Panel (IRP)

Mr. William Byrne

Glen Dimplex

Mr. Darragh Jordan

Flogas Ireland Ltd.

Mr. Keith Walsh

Commission for Regulation of Utilities (CRU)

Mr. Keith Diamond (incoming)

RGII

TC5 - Transmission

TC5 draws up national standards in the area dealing with the design, construction and operation of transmission pipelines and installations from 16 bar upwards.

The Technical Committee held 5 meetings in 2019.

Mr. PJ Rudden, Chairman (outgoing)
RPS Group Ltd

Ms. Alice Hanly, Technical Secretary
NSAI

Mr. Conor Ahern
Gas Networks Ireland

Mr. Declan Burke
Gas Networks Ireland

Mr. Gary Senior
Representative of GNI

Mr. Liam Murphy
Gas Networks Ireland

Mr. Kevin Murphy
Gas Networks Ireland

Mr. Mike Cahill
Gas Networks Ireland

Mr. Peter Clarke
Consultant

Mr. Barry Donnelly
Commission for Regulation of Utilities (CRU)

Mr. Fergal O'Mahony (incoming)
Fingleton White

TC 6 - Use of CNG in Vehicles

TC 6 reviews European and international standards linked with CNG Vehicles and CNG refuelling stations. The Technical Committee held 4 meetings in 2019.

Mr. Emmet Cregan, Chairman
Gas Networks Ireland

Ms. Alice Hanly, Technical Secretary
NSAI

Mr. Gordon Bryan
Bus Eireann

Mr. David Whelan
Fire Safety Officer with Meath County Council

Mr. Thomas Daly
Fire Officer with Dublin City Council

Mr. Paul Cooper
Gas Networks Ireland

Mr. Seamus Fearon
Circle K

Mr. Liam Nolan
Gas Networks Ireland

Mr. Peter Watters (incoming)
Independent

Ms. Niamh Caffrey (incoming)
Gas Networks Ireland

TC 8 – Liquid petroleum gas (LPG) Storage, LPG refuelling stations and LPG cylinder filling

TC 8 draws up national standards in the area dealing with bulk storage of LPG and storage of LPG cylinders and cartridges.

The Technical Committee held 2 meetings in 2019.

Mr. Gareth Doran, Chairman (outgoing)

Calor Gas

Ms. Alice Hanly, Technical Secretary

NSAI

Mr. Ciaran Costelloe

Flogas Ireland Ltd

Mr. Liam Doyle

ILPGA

Mr. Michael Kelleher

Chief Fire Officers Association

Mr. Dermot Killeen

Calor Gas

Mr. Tim Richardson

Calor Gas

Ms. Ita Daly

Health and Safety Authority

Mr. Paul O'Connell (incoming)

Flogas

TC 9 - LPG equipment and accessories

This committee monitors Irish participation in the pressure vessel and the Transport of Dangerous Goods area at CEN (particularly CEN /TC 286) and ISO meetings.

The Technical Committee held 4 meetings in 2019.

Mr. Paul O'Connell, Chairman

Flogas Ireland Ltd

Ms. Alice Hanly, Technical Secretary

NSAI

Mr. Tim Richardson

Calor Teoranta

Mr. Steve McGarry

Health and Safety Authority

Mr. Sean McCourt

Calor Gas

Mr. Dermot Killeen

Calor Gas

4 Summary of 2019 Activities

4.1 National Work

4.1.1 National Meetings

	Meeting	Date
1.	Central Committee	13/03/2019
2.	Central Committee	15/08/2019
3.	Central Committee	26/11/2019
4.	TC 1 Distribution	07/02/2019
5.	TC 1 Distribution	06/06/2019
6.	TC 1 Distribution	18/09/2019
7.	TC 1 Distribution	12/11/2019
8.	TC 2 Installation and appliances	06/02/2019
9.	TC 2 Installation and appliances	21/02/2019

10.	TC 2 Installation and appliances	12/03/2019
11.	TC 2 Installation and appliances	16/04/2019
12.	TC 2 Installation and appliances	15/05/2019
13.	TC 2 Installation and appliances	13/08/2019
14.	TC 2 Installation and appliances	05/09/2019
15.	TC 2 Installation and appliances	03/10/2019
16.	TC 2 Installation and appliances	27/11/2019
17.	TC 5 Transmission	28/02/2019
18.	TC 5 Transmission	04/04/2019
19.	TC 5 Transmission	25/04/2019
20.	TC 5 Transmission	28/05/2019
21.	TC 5 Transmission	26/06/2019
22.	TC 6 Use of CNG in vehicles	27/03/2019
23.	TC 6 Use of CNG in vehicles	05/06/2019
24.	TC 6 Use of CNG in vehicles	22/08/2019
25.	TC 6 Use of CNG in vehicles	16/10/2019
26.	TC 8 LPG Storage, LPG refuelling stations and LPG cylinder filling	28/01/2019
27.	TC 8 LPG Storage, LPG refuelling stations and LPG cylinder filling	20/02/2019
28.	TC 9 LPG equipment and accessories	01/02/2019
29.	TC 9 LPG equipment and accessories	12/04/2019
30.	TC 9 LPG equipment and accessories	27/09/2019
31.	TC 9 LPG equipment and accessories	02/12/2019

4.1.2 National Standards

The national work activities carried out by each of the GTSC sub-committees in 2019 included the following:

Committee	Work item
TC 1 Distribution	<ul style="list-style-type: none"> 5 year review of I.S. 822, <i>Gas pressure regulating installations on service pipelines</i> - Confirmed
	<ul style="list-style-type: none"> 5 year review of S.R. 12007-5, <i>Installation of Gas Service Pipes</i> - on hold subject to review of EN 12007-5.
TC 2 Installation and appliances	<ul style="list-style-type: none"> Completion of I.S. 820, <i>Non-domestic gas installations</i> - Published April 2019
	<ul style="list-style-type: none"> 5 year review of I.S. 813, <i>Domestic gas installations</i> - A number of workshops were carried out throughout the year in relation to I.S. 813, which allowed discussion around the topics proposed to be revised in the next edition. The workshops were recorded, and a table of proposed changes were used in the justification for revising I.S. 813. A formal proposal to commence the revision of I.S. 813 was submitted to the NSAI board and was approved November 2019. Work on this project will commence early 2020.
TC 5 Transmission	<ul style="list-style-type: none"> Drafting of I.S 328-1 and 2, <i>Code of Practice for Gas Transmission Pipelines and Pipeline Installations</i> - The technical content of this

Committee	Work item
	document was agreed by the committee and is intended to be launched for public enquiry in 2020.
TC 6 Use of CNG in vehicles	<ul style="list-style-type: none"> Drafting and public enquiry of National Annex to I.S. EN 16723-2:2017, <i>Natural gas and biomethane for use in transport and biomethane for injection in the natural gas network - Automotive fuels specification</i> – No comments were received during public enquiry. Now due for publication.
TC 8 LPG Storage, LPG refuelling stations and LPG cylinder filling	<ul style="list-style-type: none"> Drafting and public enquiry of I.S. 3213, <i>Code of practice for the storage of LPG cylinders and cartridges</i> – This document was launched for public enquiry in August 2019 and received 20 comments. TC 8 will meet early 2020 to address comments received for publication later in the year.

4.2 International Work

4.2.1 International Meeting Attendance

GTSC members closely monitored and attended the following CEN and ISO Technical Committees in 2019. These delegates reported back to the appropriate GTSC committees. The members attended the Plenary meetings as Irish Delegates representing the Irish position and voted accordingly. The members attended the Working Group meetings as Experts and represented the position of the GTSC and their company in the drafting of standards.

The GTSC approved a total of 61 ballots, 21 of which, were approved with comments. 32 ballots were abstained and 1 was rejected.

4.2.1.1 CEN Technical Committees

CEN/TC 49 – Gas cooking appliances

4th Jul 2019 - Milan

Mr. Liam Doyle, ILPGA

This committee is responsible for the domestic cooking appliances burning gas standards in Europe EN 30 series which are harmonised to the Gas Appliance Regulations.

CEN/TC 237 – Gas meters

4th Jul 2019 - Brussels

Mr. Michael Crowley, Gas Networks Ireland

This committee deals with the requirements for the construction, performance and safety of gas meters, including diaphragm, rotary displacement, turbine, ultrasonic domestic gas meters, and all associated conversion devices.

The TC is currently focusing on the impact of Hydrogen on gas meters.

CEN/TC 326 – Natural Gas Vehicles - Fuelling and Operation

Plenary - 11th Apr 2019 - Brussels

Mr. Emmet Cregan, Gas Networks Ireland

WG 6 - Mr. Paul Cooper, Gas Networks Ireland

This committee is responsible for standards for the design, construction, operation, inspection, safety and maintenance of fuelling stations and facilities for natural gas vehicles (NGV's). It includes natural gas and biomethane in compressed (CNG) or liquefied (LNG) form and covers the operational aspects of NGV's during their life cycle.

CEN/TC 408 – Natural Gas and biomethane for use in transport and biomethane for injection in the natural gas grid

Mr. Emmet Cregan, Gas Networks Ireland

This committee is responsible for specifications for natural gas and biomethane as vehicle fuel and of biomethane for injection in the natural gas grid, including any necessary related methods of analysis and testing. Production process, source and the origin of the source are excluded.

CEN/TC 234 – Gas infrastructure

22nd, 23rd May 2019 - Zurich

Mr. R. Somers, Gas Networks Ireland

Ms. A. Hanly, NSAI

The TC is responsible for standards produced for natural gas and biogas infrastructures from the gas terminal to the point of delivery.

The TC is currently focusing on the impact of Hydrogen on gas infrastructure.

CEN Sector Forum Gas

The Sector Forum Gas gives direction to the CEN Technical Committees in the specific gas sectors and makes recommendations proposed by the Member States that are in turn addressed by the Technical Committees.

SFG – Infrastructure - 24th May 2019 - Zurich

Mr. R. Somers, Gas Networks Ireland

Ms. A Hanly, NSAI

CEN/TC 286 – LPG equipment and accessories

This TC is responsible for producing standards for the design, manufacture and operational maintenance of LPG pressure vessels, cylinders and associated valves. The Secretariat of CEN/TC 286 is held by NSAI, with Ms Alice Hanly as the Secretary.

This year's CEN/TC 286 Plenary was held in Stockholm on 18th and 19th June 2019, with Paul O'Connell as the Irish lead delegate.

WG 1 – LPG pressure vessels

9th Jan 2019 – London

25th Apr – London

10th Dec 2019 - Hoofddorp

WG 2 – Valves

8th, 9th Jan 2019

5th Apr 2019 - Brussels

23rd, 24th Jul 2019 – Brussels

7th to 9th Oct 2019 - Lisbon

Mr. P. O'Connell, Flogas Ireland Ltd (Convenor)

Ms A. Hanly, NSAI (Secretary)

WG 5 – Road Tankers

28th Feb - Virtual

Mr. P. O'Connell, Flogas Ireland Ltd

Mr. T. Richardson, Calor Gas

WG 6 – Automotive Systems

21st Mar 2019 - Madrid

6th Jun 2019 - Milan

13th Sept 2019 – Virtual

28th Oct 2019 – Virtual

29th Nov 2019 - Virtual

WG 7 – Operation of cylinders and tanks

20th, 21st Feb 2019 - Paris

10th Jul 2019 – Paris

29th, 30th Oct 2019 - Paris

Mr. T. Richardson, Calor Gas

WG 8 – LPG pipework

Ms A. Hanly, NSAI (Secretary)

WG 9 – LPG propulsion systems for recreational craft

Ms A. Hanly, NSAI (Secretary)

WG 10 – Environment

Mr. P. O'Connell, Flogas Ireland Ltd.

Ms A. Hanly, NSAI (Secretary)

WG 11 - Terminology

Ms A. Hanly, NSAI (Secretary)

Mr. P. O'Connell, Flogas Ireland Ltd

Ireland also monitored the following CEN committees in 2019

CEN TC 23 – Transportable gas cylinders
CEN TC 54 – Unfired pressure vessels
CEN/TC 109 – Central heating boilers using gaseous fuels
CEN/TC 155 WG 12 – Pressure systems of polyolefin material for gas supply, water supply and drainage and sewerage
CEN TC 131 – Gas burners using fans
CEN TC 156 – Ventilation for buildings
CEN TC 181 – Dedicated liquefied petroleum gas appliances
CEN TC 296 – Tanks for the transport of dangerous goods
CENELEC/TC 216 – Gas detectors

4.2.1.2 ISO Technical Committees

ISO TC 58 SC 2 Cylinder fittings

This committee is a sub-committee of TC 58 - Gas cylinders, which is responsible for the standardization of gas cylinders and other pressure receptacles, their fittings and requirements relating to their manufacture and use. The plenary meeting is represented by Irish delegate, Mr. Paul O'Connell, Convenor of ISO/TC 58/SC 2/WG 12 *Cylinder fittings*.

ISO TC 58 SC 2 WG 12 Cylinder fittings

Mr. Paul O'Connell, Convenor

The WG is responsible for producing standards for LPG cylinder valves. This WG has an agreement with CEN/TC 286 to develop ISO 15995, *Gas cylinders - Specifications and testing of LPG cylinder valves - Manually operated* and ISO 14245 *Gas cylinders - Specifications and testing of LPG cylinder valves - Self-closing* in parallel with the development of EN ISO 15995, EN ISO 14245. The revision of these two standards were completed and published in 2019.

Ireland also monitored the following ISO committees in 2019

ISO /TC 67/SC 2 – Pipe line transportation systems

ISO/TC 138 – Plastics pipes, fittings and valves for the transport of fluids

ISO/TC 193 – Natural gas

ISO/TC 185 – Safety devices for protection against excessive pressure

ISO/PC 252 – Project committee: Natural gas fuelling stations for vehicles

4.2.2 International standards

The main International work activities carried out by the GTSC in 2019 included the following:

Committee	Work item
TC 1 Distribution	<ul style="list-style-type: none"> Review of systematic review ballot for EN 12279, <i>Gas supply systems - Gas pressure regulating installation on service lines - Functional requirements</i>.
TC 6 Use of CNG in vehicles	<ul style="list-style-type: none"> Review of prEN 17278, <i>Natural gas vehicle (NGV) refuelling appliances</i> – TC 6 has been closely monitoring the progress of this item under CEN/TC 326 WG 6 with several batches of comments submitted throughout.
	<ul style="list-style-type: none"> Review of prEN 13423, <i>Compressed natural gas vehicle operations</i> - TC 6 has been closely monitoring the progress of this item under CEN/TC 326 WG 3 with several batches of comments submitted throughout. TC 6 approved the document at enquiry along with comments.
	<ul style="list-style-type: none"> Review of FprCEN/TR 17452, <i>Natural gas fuelling stations – Guidance for implementation of European standards on CNG and LNG stations for fuelling vehicles</i> - TC 6 approved the final document along with comments.
TC 9 LPG equipment and accessories	<ul style="list-style-type: none"> Review of 40 ballots launched by CEN/TC 286, CEN/TC 296, ISO/TC 58/SC 2 & ISO/TC 58/SC 4.

4.3 Launch of the 2018 GTSC Activity Report

The 2018 GTSC Activity Report was launched on the 21st of November 2019 where the Chairman of the Gas Technical Standards Central Committee, Mr. Liam Nolan presented the Report to the Minister of State of Communications, Climate Action and Environment, Sean Canney.

Present at the launch were Mrs. Geraldine Larkin, CEO of NSAI, Mr. Enda McDonnell, NSAI Director of Standards, Ms. Alice Hanly, Secretary to the Committee, and a number of Gas Technical Standards Committee (GTSC) members. There was a total of 21 people in attendance.

The presentation of the report commenced with an introduction by Mr. Liam Nolan, followed by a speech by Mrs. Geraldine Larkin. The presentation then finished with a speech by Minister for State. The focus of the day was on and the relationship between government initiatives, industry response and standardisation relating to climate action.

Following the presentation of the report, the GTSC 1982 Awards were presented to 4 awardees, Bob Hanna (DCCAE), Liam Hearne (GNI), Peter Clarke (GNI) and PJ Rudden (RPS) in recognition of their contribution to Gas standardisation over the years.

It was also announced on the day that the GTSC will be extending the scope of its sub-committees in response to increased activity in the areas of renewable gas and hydrogen both within the gas industry and the European and International standardisation work programme. This will further support the actions set out in the Government's Climate Action Plan 2019, which relate directly to the gas sector.

Experts in the areas of renewable gas as well as hydrogen and LNG will be needed to advise the NSAI on what standards need to be adopted and developed to help Ireland move towards a low carbon economy.

A press release was issued to reflect this event and a call for experts in the areas of renewable gas, hydrogen and LNG to join its sub-committees.

The restructure of the GTSC will include the creation of new sub-committee dealing with Gas Quality. This committee will cover all fuel gases i.e. Natural gas, renewable gas, hydrogen, LNG, LPG.

In parallel to this launch, the NSAI website has been updated to include a current page outlining the structure of the GTSC.

NSAI Gas Technical Standards Committee at the launch of the 2018 GTSC Activity Report on 21st Nov 2019



Back Row- From Left to right

Emmet Cregan (GNI), David Hughes (GNI), Bob Hanna (formerly DCCAE), Peter Clarke (Formerly GNI), Fergal Finn (NSAI), Enda McDonnell (Director of Standards and Legal Metrology, NSAI), PJ Rudden (Formerly RPS), Philip Connolly (DCCAE), Liam Doyle (ILPGA), Darragh Jordon (Flogas), Peter Watters (Independent expert), Donal Kissane (GNI).

Front Row- Left to right

Barry Donnelly (CRU), Loretta Joyce (CRU), Liam Nolan (GTSC Chairman, GNI), Sean Canney (Minister of State of Communication, Climate Action and Environment), Geraldine Larkin (CEO NSAI), Alice Hanly (GTSC Technical Secretary, NSAI), Ciaran Costelloe (Flogas).

5 Work programme for 2020

The GTSC will undertake the following work in 2020

GTSC will focus on the extension of its scope to include renewable gas, Hydrogen and LNG. Experts from within these areas will be invited to join the relevant sub-committees. Each GTSC sub-committee will meet in the new year and review its work programme to reflect the GTSC's change in scope.

GTSC TC 1 will continue to monitor and review the development of European and International Standards in CEN/TC 155/WG12, CEN/TC 234 - WG 2, 5, 8, 10, CEN/TC 237 and ISO/TC 138 SC2.

GTSC TC 1 will review I.S. 329:2015, *Gas distribution mains* and make a recommendation to confirm, withdraw or revise it.

GTSC TC 2 will continue to monitor and review the development of European and International Standards in CEN/TC 049, CEN/TC 109, CEN/TC 181 and CEN/TC 234 - WG 1 & 8.

GTSC TC 2 will commence the revision of I.S. 813:2014+A1:2017.

GTSC TC5 will continue the revision of I.S. 328:1 *Code of Practice for Gas Transmission - Pipelines* and I.S. 328:2, *Code of Practice for Gas Transmission - Pipeline Installations*. A draft of both parts will be launched for public enquiry Q1 2020.

GTSC TC 5 will continue to monitor and review the development of European and International Standards in CEN/TC 012, CEN/TC 234/WG 03 and ISO/TC 67 SC 2.

GTSC TC 6 will continue to monitor and review the activities and work of CEN TC 326 - *Natural Gas Vehicles - Fuelling and Operation*, WG 1, 3 and 6.

GTSC TC 8 will continue with the revision of the Irish Standard I.S. 3213 - *Code of practice for the storage of LPG cylinders and cartridges*, which was last amended in 1993.

GTSC TC 9 will continue to participate in the development of European Standards developed by CEN/TC 286 – *LPG equipment and accessories*, CEN/TC 296 - *Tanks for the transport of dangerous goods* and ISO TC58 SC2 - *Cylinder fittings* & SC4 - *Operational requirements for gas cylinders*.

GTSC TC 11 will commence activities as a new sub-committee, TC 11 "Gas Quality", which will cover all fuel gases i.e. Natural gas, renewable gas, hydrogen, LNG, LPG.

6 Active standards within the scope of the GTSC

Indigenous Irish standards

S.R. 12007-5:2016

Installation of Gas Service Pipes. Parts 1 and 2 (Fourth Edition)

SWiFT 8:2011

Specific requirements for electrical apparatus for the detection of Carbon Monoxide (CO) in domestic premises

I.S. 328:2015

Code of Practice for Gas Transmission Pipelines and Pipeline Installations (Including Amd. No. 1 2015)

I.S. 329:2015

Gas distribution mains (Including Amd. 1 2016)

I.S. 370:2016

Colour code for buried plastics piping

I.S. 813:2014+A1:2017

Domestic gas installations Edition 3 (Including AC1:2014 and AC2:2014)

I.S. 820:2019

Non-Domestic gas installations Edition 3

I.S. 822:2007

Gas pressure regulating installations on service pipelines

I.S. 3213:1987

Code of Practice for the Storage of LPG Cylinders and Cartridges (Including Amd. No. 1 1990 & Amd. No. 2 1993)

I.S. 3216:2010+A1:2014

Code of practice – Bulk storage of Liquefied Petroleum Gas (LPG)