

ISO 14064 Series Training Course Brochure

Turning ambition to action

Climate change is changing not just the physical environment, but the economic environment. Financial institutions are applying increasingly stringent ESG Standards for funding carbon intensive businesses – and consumers increasingly expect every business to have a decarbonization plan. Given the dramatic reversal the world needs over the next ten years for its own survival, we expect that pressure to get more and more demanding.

Business as a result, needs to become carbon literate. It needs to have an embedded capacity to measure, reduce and verify what it does and the impact that it makes on society. The ISO 14064 Course series was designed to provide that capacity. Whether the journey is to understand how Greenhouse Gas (GHG) accounting works, conduct an organization level carbon footprint, create emissions reduction projects, or verify emissions reports - *some one in every organisation needs to take the lead.*

About ISO 14064 Accredited Courses

ISO 14064 is *the* internationally recognised series of standards used for carbon measurement, reporting and verification (MRV). The standards are designed to ensure that the Carbon MRV is *transparent, relevant, accurate, complete and consistent*. Frameworks and principles from this standard can be adopted by companies required to participate in mandatory schemes, or for those who wish to report voluntarily. Voluntary actors often wish to communicate to their stakeholders with credibility – that they are serious about decarbonizing their business models. Mandatory actors must conform to schemes that can be pan European, national or sector specific. Examples of such schemes include:

- The EU ETS - European Union Emissions Trading Scheme – which covers about 40% of emissions in the EU, generally in high emission industries.
- The EU Fuel Quality Directive – requiring all fuels sold in the EU to reduce their carbon intensity by 6% compared to 2010 levels.
- CORSIA - Carbon Offsetting and Reduction Scheme for International Aviation.
- General Corporate Schemes, for example, the Streamlined Energy and Carbon Reduction (SECR) framework, which applies to non-publicly quoted UK companies, that meet certain threshold criteria.

The first step to mitigation of climate change is to understand how to quantify and report our greenhouse gas emissions, which is what ISO 14064-1 sets out to do.

This ISO 14064-1 course was developed by the Canadian Standards Association (CSA) and is delivered by Carbon Action. Carbon Action is a leading provider of carbon training in the United Kingdom and has the exclusive rights to provide CSA accredited training courses for the ISO 14064 series of standards.

Upcoming Course Schedules:

The ISO 14064 Series includes three separate courses: courses consist of the following modules:

ISO 14064-1:	Quantification and Reporting of Greenhouse Gas Emissions for Organizations
ISO 14064-2:	Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancement
ISO 14064-3:	Verification and Validation of Greenhouse Gas Statements

The courses are delivered by instructor led webinar in four-hour modules. The courses are workshop orientated with emphasis on classroom discussion and practical exercises. The courses do require some pre work and there is an online exam to be taken after the course, in the student's own time. Successful completion of the course and exam allows the student to download their certificate, which is issued by the CSA. Course fees include tuition, training materials, a copy of the relevant ISO Standard and all exam and licensing fees due to the accrediting body.

Upcoming Courses:

The current course schedule is as follows:

	ISO 14064-1:2018	ISO 14064-2:2019	ISO 14064-3:2019
Dates	23-25 June 2021 7 AM – 11 AM (UK Time) 15-17 September 7 AM – 11 AM (UK Time)	28-30 September 2021 7 AM – 11 AM (UK Time)	18,19,20,21 May 2021 7 AM – 11 AM (UK Time) 5-8 Oct 2021 7 AM – 11 AM (UK Time)
Duration	12 hours (3 sessions x 4 hours)	12 hours (3 sessions x 4 hours)	16 hours (4 sessions x 4 hours)
Course Fees	£ 995	£ 995	£ 1495

Course agendas for each course follow below.

About Carbon Action

Carbon Action is the Strategic Alliance Partner of the Canadian Standards Association (CSA). The CSA administers the International Secretariat of ISO/TC207/SC7 on GHG Management. This committee is responsible for ISO 14064 standards and the CSA's role and leadership are fundamental to ensure that these standards are up to date and meet stakeholder needs. Carbon Action is a technical expert on ISO/TC207/SC7 and has provided support to many GHG programmes in Asia, Africa, Europe and Middle East.

Overview ISO 14064-1: 2018 *Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.*

Prerequisites:

None

Course Description

This document specifies principles and requirements at the organization level for the quantification and reporting of greenhouse gas (GHG) emissions and removals. It includes requirements for the design, development, management, reporting and verification of an organization's GHG inventory.

The ISO 14064 series is GHG programme neutral. If a GHG programme is applicable, requirements of that GHG programme are additional to the requirements of the ISO 14064 series.

Course Agenda:

Greenhouse Gas Inventories & Measuring Carbon Footprint is one course, taken in three sections:

Section 1: **Foundational Information** (self-paced, e Learning) *must be completed prior to starting the Section 2 virtual training*

- Climate Change
- Basic GHG Definitions and Concepts
- Purpose and Benefits of ISO 14064-1:18

Section 2: **Apply the Standard** (instructor-led, virtual, 3 x 4 hour sessions)

- GHG inventories
- GHG accounting and reporting principles
- Preliminary planning and base year
- Quantification of GHG emissions and removals
- Tools for emissions calculations
- GHG management handbook
- GHG information management system

Section 3: **Quiz** (online)

- You will receive a link to take the comprehensive quiz.
- You earn a Certificate of Course Completion once you complete all three sections of the 14064-1:2018 training.

Objectives

- Describe definitions in and requirements of ISO 14064-1
- Identify concepts related to ISO 14064-1
- Explain framework and importance of design and development for verifiable GHG Inventory systems and procedures
- Describe framework and importance of a GHG management handbook and GHG Information Management System (IMS)
- Summarize tools, methods and good practice guidance related to GHG protocol for corporate accounting
- Recap tools, methods and good practice to develop inventory requirements of ISO 14064-1

Who should attend?

- Accountants & Financial Professional in GHG
- Auditors

- Consultants
- Design Architects/Environmental Engineers
- GHG Inventory Developers/Inventory Quantifiers
- GHG Auditors/Verifiers.
- Public Finance Institution (PFI) practitioners.
- Impact investors.
- Government Regulators, Public workers, Regulatory Compliance Professionals
- Managers and Developers of Carbon Neutral/Offsetting projects
- Offset project developers, Project Managers/Coordinators
- Site, Utilities, Facility Managers/Operations Managers

What's Included

- class materials
- a copy of ISO 14064-1:2018 Standard - *Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.*

Overview ISO 14064-2: 2019 - *Greenhouse gases — Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements*

Prerequisites

Completion of ISO 14064-1 course or solid experience applying ISO 14064-1 approach to GHG Quantification.

Course Description

This course provides a background and introduction to greenhouse gas projects - projects that reduce emissions (such as alternative energy projects) or enhance emissions removal (such as forestry projects). The course reviews the requirements of ISO 14064-2, including principles and requirements for: determining project baselines, monitoring, quantifying and reporting project performance, validation and verification requirements. Additionally, the course explores the linkages between ISO 14064-2 and other GHG protocol, such as the WBCSD/WRI Protocol for projects and the many voluntary carbon Standard/programmes. Potential linkages with the Clean Development Mechanism will also be discussed.

Course Agenda

Section 1: Apply the Standard.

- Module 0: Course Overview
- Module 1: Introduction to GHG Projects
- Module 2: Introduction to ISO 14064-2
- Module 3: Identifying SSRs
- Module 4: Determining the Baseline Scenario
- Module 5: Quantifying GHG Emission or Removals
- Module 6: Emission Factors
- Module 7: GHG Monitoring and Data Management
- Module 8: Documenting, Validating/Verifying and Reporting GHG Project.

Section 2: Comprehensive Quiz

- Complete online after the course.
- You earn a Certificate of Course Completion once you complete the 14064-2 : 2019 training.

Objectives

At the end of this course learners will be able to:

- Apply ISO 14064-2 and GHG project protocol.
- Implement the development of verifiable quantification procedures for GHG projects
- Apply good practice guidance to develop quantification procedures according to ISO 14064-2
- Recognize the inherent flexibility of ISO 14064-2 to make informed decisions for GHG Project accounting
- Summarize importance of an appropriate and credible baseline scenario selection
- Show how to select, establish, apply, justify, explain and document procedures, criteria and tools which conform to ISO 14064-2.

Who should attend?

- Accountants & Financial Professional in GHG
- Auditors
- Consultants
- Design Architects/Environmental Engineers.
- Public Finance Institution (PFI) practitioners.
- Impact investors.
- GHG Inventory Developers/Inventory Quantifiers
- GHG Auditors/Verifiers
- Government Regulators, Public workers, Regulatory Compliance Professionals
- Managers and Developers of Carbon Neutral/Offsetting projects
- Offset project developers, Project Mangers/Coordinators
- Site, Utilities, Facility Managers/Operations Managers.
- Designated Operational Entities (UN CDM)
- GRI practitioners.
- Persons working in Upstream Emission Reductions.
- Those involved in the EU Fuel Quality Directive implementation.
- Oil and Gas executives.

What's Included

- class materials
- a copy of ISO 14064-2:2019 - Greenhouse gases — Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements.

Overview ISO 14064-3:2019 *Specification with guidance for the verification and validation of greenhouse gas statements*

Prerequisites

ISO 14064-1 and ISO 14064-2 requirements are not covered in this course but are referred to in order to understand and apply ISO 14064-3 requirements. To be fully engaged, you must have a strong knowledge of ISO 14064-1 and ISO 14064-2 before attending this course.

Course Description

This Standard specifies GHG Validation and Verification principles together with specific requirements and provides guidance for verifying and validating greenhouse gas (GHG) statements. It is applicable to organization, project and product GHG statements. The course provides specific examples of how the validation and verification approaches are applied to GHG inventories, project and carbon footprints of products that conform with ISO 14064-1 and 14064-2 and ISO 14067 Standards. The ISO 14064 family of standards is GHG programme neutral. If a GHG programme is applicable, requirements of that GHG programme are additional to the requirements of the ISO 14064 family of standards.

Course Agenda

Module 1: Overview of ISO 14064-3: 2019

Module 2: Review ISO 14064 -1 and ISO 14064-2 and other standards.

Module 3: Introduction to Validation/Verification.

Module 4: Principles of Validation/Verification.

Module 5: Requirements applicable to Validation/Verification.

Module 6: Verification Planning.

Module 7: Execution and Completion of Verification Activities

Module 8: Validation

Module 9: Independent Review and Issuance of a Validation or Verification Opinion.

Objectives

This course will allow participants to be able to:

- Describe ISO 14064-3 GHG (Greenhouse Gas) Standard as it applies to the verification of GHG Statement and to the validation of a GHG Project Statement, PDD, RPD or other GHG Project Assertion.
- Identify specific examples of how the verification approach is applied to GHG inventories, project and carbon footprints of products that conform with ISO 14064-1 and 14064-2 and ISO 14067 Standards
- Describe high level requirements of ISO 14064-1 and ISO 14064-2.
- Define verification/validation
- Explain how to establish and assign roles and responsibilities

- Know how verification fits in the inventory and verification/validation in project cycles
- Distinguish between validation and verification
- Identify verification/validation principles
- Explain how the five verification/validation principles are applied to a project or GHG Inventory.
- Describe verification/validation processes.
- Describe Verification Plan / Validation Plan / Evidence – gathering plan.
- Describe the various levels of assurance in GHG Validation and Verification assignments.
- Identify and mitigate Validation and Verification Risks
 - Inherent Risk
 - Control Risk
 - Detection Risk
- How to construct the Validation/Verification Statement
 - Unmodified opinion – Clause 7.3.2.2
 - Modified opinion – Clause 7.3.2.3
 - Adverse opinion – Clause 7.3.2.4
 - Disclaiming the issuance of an opinion

Who should attend?

- Accountants & Financial Professional in GHG
- Auditors
- Consultants
- GHG Inventory Developers/Inventory Quantifiers
- GHG Auditors/Verifiers
- Government Regulators, Public workers, Regulatory Compliance Professionals.
- Public Finance Institution (PFI) practitioners.
- Impact investors.
- Offset project developers, Project Mangers/Coordinators
- Designated Operational Entities (UN CDM)
- GRI practitioners.
- Persons working in Upstream Emission Reductions.
- Those involved in the EU Fuel Quality Directive implementation.
- Oil and Gas executives.

Participant materials provided.

- 1) A copy of ISO 14064-3:2019 - Greenhouse gases -- Part 3: *Specification with guidance for the verification and validation of greenhouse gas statements*
- 2) Participant Guide or Course Manual
- 3) Case Study Part 1 – An Anaerobic Digester (AD) Case Study
- 4) Case Study Part 2 - Project Validation Report for the Anaerobic Digester.
- 5) Case Study Part 3 – First Operational Year Greenhouse Gas Report for the Anaerobic Digester
- 6) CSA Case Study – Corporate Greenhouse Gas Inventory for Global Operations
- 7) Ecometrica – Verification Report for a Corporate Greenhouse Gas Inventory for Global Operations.
- 8) Activity Answer Key (available after session 4)

TRAINER PROFILE



Fergal Mee

Director of GHG Services, Carbon Action

Environmental Director, Chris Mee Group

Fergal Mee is the Director of Greenhouse Gas (GHG) services at Carbon Action which is based in London. Carbon Action is part of the Ireland based Chris Mee Group where Fergal also serves as the Environmental Director.

Prior to joining Chris Mee Group as Environmental Director, Fergal had 15 years of experience as a Plant Manager in Novartis where he has responsible for overseeing the environmental and energy operations. As Environmental Director for the Chris Mee Group, Fergal has been instrumental in the development of environmental related services, with an initial project in the European Union (EU) Energy Performance Buildings Directive (EPBD) and assignments in Integrated Pollution Prevention and Control Licensing, Environmental Liability Assessments and Energy Management.

In his role as Director of GHG Services at Carbon Action since 2008, Fergal has been actively involved in projects for the EU Emissions Trading System (ETS). In 2013, Carbon Action signed a Memorandum of Understanding (MoU) with Business Expert Group (BE Group) where Carbon Action provided training courses as well as practical consultancy in ISO 14064 for companies operating in the Commonwealth of Independent States (CIS) regions that include Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan and Ukraine.

More recently, in 2016, Carbon Action entered into a training partnership with Carbon Disclosure Project (CDP) and was involved in the delivery of carbon management training for CDP-responding companies in 2016.

Fergal was also one of the speakers in the recent panel discussion at the upcoming EU ETS Reform, Emissions Trading and Brexit workshop held in Dublin in April 2018 which saw participation of policy-makers, academics, and industry representatives following the announcement by the Council of the European Union's formal approval of significant reform of the EU Emissions Trading Scheme in Feb 2018.