
N558: Green House Gas Emissions Quantification and Reporting for Oil and Gas Companies

Instructor(s): Jim Bradly and Co-Instructor

Format and Duration

Classroom - 2 Days

Virtual - 4 Sessions

Summary

The energy industry has been going through significant and fast-paced change over the past few years. Most energy companies, investors and consumers agree that the world needs to accelerate the pace towards a net-zero carbon future. As part of this journey, all companies and organisations are expected to report their Greenhouse Gas (GHG) emissions. This course will help attendees to describe how their future projects and investments will support the energy transition. This course will provide an introduction to quantifying GHG emissions and the reporting requirements for oil & gas companies. The course will also consider the demands and expectations of other stakeholders, including Banks and Investors, who require increased scrutiny of the emissions impact of the project.

Learning Outcomes

Participants will learn to:

1. Understand the implications of the Greenhouse Gas Protocol and ISO 14064 for oil and gas companies.
2. Identify emissions sources for a company or project.
3. Understand GHG emissions classifications and define reporting boundaries.
4. Quantify GHG emissions.
5. Create an emissions report.
6. Describe how a project will support the energy transition.

Training Method

This is a classroom or virtual classroom course comprising a mixture of lectures, discussion, case studies, and practical exercises.

Who Should Attend

Oil and Gas professionals, whom to-date have had limited exposure to emissions quantification and reporting. The course is particularly well suited to subsurface management roles and direct support functions, including Technical Team Leads, Asset Managers, Exploration Managers, Development Managers, Global Portfolio & Strategy Managers/New Business Development and Technical Chiefs.

Course Content

1. Intro to GHG reporting

- Basic GHG definitions and concepts
- Introduction to GHG inventories
- GHG accounting and reporting
- GHG reporting for oil and gas companies
 - Green House Gas protocol
 - ISO 14064
 - TCFD

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- Local reporting requirements (OGA, EPA)
- GHG sinks and sources
- Practical exercise: Emissions sources for an oil and gas project

2. GHG inventories and projects

- Reporting boundaries; Operational and equity reporting
- Emissions classification
 - Scope 1,2,3
 - Direct and Indirect emissions
- Defining Base Year
- Practical exercise: Calculate base year emissions for an oil and gas project
- Emissions reduction/removal projects
- Practical exercise: Calculate emissions removals for an oil and gas project

3. Quantifying emissions

- Quantification approaches; Data sources, measurement and modelling
- Practical exercise: Identify sources for an oil and gas project
- Tools to help quantify emissions
- Practical exercise: Use of emissions factors
- Practical exercise: Forward modelling of emissions for an oil and gas projects
- Valuing emissions project
 - Carbon pricing
 - Emissions trading scheme
- Practical exercise: Valuation of emissions for an oil and gas project

4. Emissions reporting, verification and validation

- Emissions reporting; Statutory and voluntary reporting
- Verification – reviewing historic data
- Validation – forward looking forecast
- Practical exercise: Create an emissions report for an oil and gas company
- Emissions benchmarking
- Emissions and ESG reporting; TCFD and access to finance
- Practical exercise: Create a narrative of how an oil and gas project contributes to the Energy Transition
- Create an emissions reporting take away actions list
- Course wrap-up and Q&A session