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COURSE BROCHURE

# Oil and Gas Carbon Footprint Across the Life Cycle Training Course

22 – 26 March 2027
Barcelona

# Oil and Gas Carbon Footprint Across the Life Cycle Training Course

**Ref:** 2745_104915 **Date:** 22 – 26 March 2027 **Location:** Barcelona **Fees:** 6200 GBP

Oil and Gas Carbon Footprint Across the Life Cycle is a 1-week training course for emissions engineers, asset planners and commercial analysts who must quantify the emissions attached to a barrel or a cargo of gas, and it ends with a product footprint statement for one value chain. Buyers, lenders and partners now compare suppliers on carbon intensity per unit of energy delivered. Jupiter Prime Training runs this course to connect field data with that commercial conversation.

## Why Oil and Gas Carbon Footprint Matters Now

Three forces are reshaping how hydrocarbons are judged. Purchasers of crude, condensate and liquefied gas increasingly ask for the intensity of each cargo, not a company average. Capital providers screen new developments on their expected emissions per barrel across decades of production. An organisation that can trace emissions from reservoir to customer defends its market access and its project choices; one that cannot is priced on assumptions written by others. The course rests on attributional and consequential life cycle thinking, functional units and allocation rules described in general terms.

## Who Gains Most from Oil and Gas Carbon Footprint

- Engineers responsible for flaring, venting, fuel gas and fugitive emission estimates at facility level
- Planners who compare development concepts and need emissions per barrel alongside cost per barrel
- Commercial staff who answer buyer questions on cargo intensity and product declarations
- Sustainability specialists who consolidate site figures into product and portfolio footprints
- Supply and shipping analysts who own transport, storage and blending emission figures

A mixed group from one value chain gains most, since each member owns a different stage of the same footprint.

## Oil and Gas Carbon Footprint Capabilities

Participants turn scattered facility figures into a traceable intensity number that a buyer, a lender or an investment committee can test line by line.

- Define a functional unit and system boundary for a crude or gas product — buyer declarations
- Calculate extraction, processing and transport emissions from operating data — facility improvement priorities
- Apply allocation choices across co-products such as condensate and natural gas liquids — fair product comparison
- Test the sensitivity of a footprint to methane loss rates and flaring volumes — data investment decisions
- Compare development concepts on lifetime intensity as well as cost — investment committees
- Communicate uncertainty ranges and assumptions in a product statement — lenders and purchasers

## Key Oil and Gas Carbon Footprint Terms

- Carbon intensity — emissions per unit of product or energy delivered.
- Functional unit — the defined quantity of product to which all emissions in a study are related.
- System boundary — the stages and activities included in a footprint, from reservoir to refinery gate or to final combustion.
- Allocation — the rule that divides shared emissions among co-products.
- Fugitive emissions — unintended releases of gas from valves, seals, connectors and equipment.
- Upstream intensity — emissions from exploration, drilling, production and field processing.

## Oil and Gas Carbon Footprint Day by Day

## Day 1: The Barrel and the Market

- Buyer Intensity Questionnaires — What Purchasers Now Ask of Each Cargo
- Attributional Versus Consequential Thinking — Choosing the Right Question
- Functional Units for Crude, Gas and Products — Comparable Results
- Reservoir to Combustion Boundary Mapping — What Is In and Out
- Value Chain Stage Ownership Chart — Who Supplies Each Figure

## Day 2: Upstream Emission Sources

- Drilling and Completion Emission Estimates — Front-Loaded Lifetime Burden
- Flaring and Venting Volume Reconciliation — Routine Versus Upset Releases
- Fuel Gas and Power Demand Profiles — Compression and Lift Choices
- Leak Survey Results and Emission Factors — Methane Loss Rate Estimates
- Water Cut and Field Decline Effects — Rising Intensity Over Field Life

## Day 3: Midstream, Shipping and Processing

- Pipeline Compression and Leakage Accounting — Transport Stage Figures
- Tanker and Liquefied Gas Carrier Voyage Emissions — Route and Vessel Choice
- Gas Processing and Liquefaction Energy Use — Plant Configuration Trade-Offs
- Co-Product Allocation Rules — Condensate, Liquids and Sales Gas Shares
- Blending and Storage Losses — Terminal Contribution to Cargo Intensity

## Day 4: Decisions, Uncertainty and Reduction

- Sensitivity Tornado Charts — Which Inputs Move the Footprint Most
- Uncertainty Ranges and Data Quality Scores — Confidence in Declared Values
- Abatement Option Ranking by Cost per Tonne — Reduction Sequencing
- Concept Comparison on Lifetime Intensity — Development Selection Inputs
- Electrification and Flare Recovery Cases — Capital Versus Emissions Trade-Offs

## Day 5: Practising the Product Footprint Statement

- Boundary and Functional Unit Confirmation — Applying the Day One Map
- Upstream and Midstream Figure Assembly — Combining Stage Estimates
- Allocation and Sensitivity Rerun — Testing the Chosen Rules
- Peer Challenge of Assumptions — Readiness for Buyer Scrutiny
- Product Footprint Statement — Final Declaration for One Value Chain

## Applying Oil and Gas Carbon Footprint After the Course

- Lead a boundary mapping session to agree who supplies each stage figure for one product.
- Run a sensitivity check on the current methane loss rate and flaring estimates to decide where better metering pays back first.

## Oil and Gas Carbon Footprint Questions FAQ

### What is oil and gas carbon footprint analysis and why does it matter now?

It is the tracing of emissions from reservoir to customer for a defined quantity of product. It matters now because buyers and lenders compare suppliers on intensity per barrel or cargo.

### Which roles gain most from an oil and gas carbon footprint course?

Facility emissions engineers, development planners, commercial and marketing staff, sustainability specialists and shipping analysts gain most.

### How does an oil and gas carbon footprint course differ from a corporate emissions inventory course?

It works per unit of product rather than per organisation. A corporate inventory totals a company's annual emissions; a product footprint follows one barrel or cargo through every stage.

## What do you bring back from an oil and gas carbon footprint course?

You bring back a product footprint statement for one value chain, setting out boundary, stage figures, allocation and uncertainty for others to check.

## Oil and Gas Carbon Footprint: The Way Forward

The product footprint statement first informs how a company answers the next buyer questionnaire on cargo intensity. Commercial staff use it in negotiations, while engineers use its sensitivity results to choose where metering and leak repair come first. After its first use, revisit the allocation rule and the methane loss assumption, because these two choices usually move the declared figure most.