



OIL AND GAS | OG-025

Energy Transition Strategy for Oil and Gas: Hydrogen, CCUS and Decarbonisation

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Course content

Why Attend

Oil and gas companies are being asked to keep supplying reliable energy while cutting emissions, meeting investor and regulatory expectations and preparing for new low-carbon markets. National oil companies and international operators alike are investing in methane reduction, carbon capture, utilisation and storage (CCUS), blue and green hydrogen and electrification of operations. Professionals who understand these options, their economics and their risks are in high demand.

This Aractech course gives a clear, business-focused view of the energy transition from the perspective of an oil and gas company. Participants examine emissions sources across upstream, midstream and downstream operations, compare decarbonisation levers, and study how hydrogen and CCUS projects are developed, financed and regulated. Carbon markets, emissions reporting and the role of gas in the transition are covered with regional examples from the Middle East, Europe and Asia.

Course Methodology

- Expert briefings supported by current industry data
- Case studies of CCUS, hydrogen and methane reduction projects
- Economic analysis exercises using cost-of-abatement curves
- Group work on emissions baselines and project evaluation
- Capstone decarbonisation roadmap presented to the group

Course Objectives

- Explain the drivers of the energy transition and what they mean for oil and gas companies
- Identify Scope 1, 2 and 3 emissions across the oil and gas value chain
- Evaluate decarbonisation levers including methane reduction, flaring reduction and electrification
- Understand the technology, economics and risks of CCUS projects
- Compare grey, blue and green hydrogen production routes and markets
- Understand carbon pricing, carbon markets and emissions reporting requirements

Course content

Target Audience

- Strategy, planning and business development professionals in oil and gas
- Upstream, midstream and downstream engineers and operations managers
- HSE, sustainability and ESG professionals
- Project and investment managers evaluating low-carbon projects

Course outline

Detailed course outline

Day-by-day outline for Energy Transition Strategy for Oil and Gas: Hydrogen, CCUS and Decarbonisation.

Day 1 - The Energy Transition and Oil and Gas

- 09:00-09:39 | Global energy outlook and transition scenarios
- 09:39-10:18 | Climate commitments, net-zero targets and investor pressure
- 10:18-10:57 | The role of natural gas and LNG in the transition
- 10:57-11:00 | Strategic responses of national and international oil companies
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Strategic responses of national and international oil companies (continued)
- 12:05-12:43 | Emissions across the value chain: Scope 1, 2 and 3
- 12:43-14:00 | Workshop: assessing transition risks and opportunities for your company

Day 2 - Decarbonising Oil and Gas Operations

- 09:00-09:39 | Methane detection, measurement and leak repair
- 09:39-10:18 | Flaring and venting reduction strategies
- 10:18-10:57 | Energy efficiency and electrification of facilities
- 10:57-11:00 | Renewable power integration for oil and gas sites
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Renewable power integration for oil and gas sites (continued)
- 12:05-12:43 | Marginal abatement cost curves and prioritisation
- 12:43-14:00 | Case study: building an emissions baseline and abatement plan for an upstream asset

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Day 3 - Carbon Capture, Utilisation and Storage (CCUS)

- 09:00-09:39 | Capture technologies and their applications
- 09:39-10:18 | Transport and geological storage: depleted reservoirs and saline aquifers
- 10:18-10:57 | CO₂ utilisation and enhanced oil recovery
- 10:57-11:00 | CCUS hubs, project development and partnerships
- 11:00-11:30 | Coffee break
- 11:30-12:05 | CCUS hubs, project development and partnerships (continued)
- 12:05-12:43 | Economics, incentives and risks of CCUS projects
- 12:43-14:00 | Case study: evaluating a regional CCUS hub

Day 4 - Hydrogen and Low-Carbon Fuels

- 09:00-09:39 | Grey, blue and green hydrogen production routes
- 09:39-10:18 | Hydrogen and ammonia as export products
- 10:18-10:57 | Infrastructure, storage and transport challenges
- 10:57-11:00 | Cost competitiveness and offtake markets
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Cost competitiveness and offtake markets (continued)
- 12:05-12:43 | Low-carbon fuels, biofuels and e-fuels
- 12:43-14:00 | Practical exercise: comparing blue and green hydrogen project economics

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Day 5 - Carbon Markets, Reporting and Transition Strategy

- 09:00-09:45 | Carbon pricing, compliance markets and voluntary carbon credits
- 09:45-10:30 | Emissions reporting and disclosure expectations
- 10:30-11:00 | Financing low-carbon projects: green bonds and transition finance
- 11:00-11:30 | Coffee break
- 11:30-11:45 | Financing low-carbon projects: green bonds and transition finance (continued)
- 11:45-12:30 | Portfolio strategy and capital allocation in the transition
- 12:30-13:15 | Governance, targets and performance indicators
- 13:15-14:00 | Capstone: presenting a decarbonisation roadmap

Seminar dates

Available seminar dates

Live dates and pricing for Energy Transition Strategy for Oil and Gas: Hydrogen, CCUS and Decarbonisation generated from the course details page.

Date	Location	Format	Fee
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No seminar dates are currently available.