

Engineering the Energy Transition

The energy transition is on the way.

TRACS and EPConsult partner in this Engineering the Energy Transition modular training course, leveraging extensive experience and innovative solutions to provide insights and knowledge to participants. The combined expertise will offer a comprehensive understanding of the challenges and opportunities in engineering the energy transition.

Premium Content: Dive deep into nine meticulously crafted half-day modules, with the flexibility to choose a minimum of five modules, ensuring a tailored experience that addresses the nuances of energy transition and renewables.

Delivery Options: Choose between an intensive one-week face-to-face session or a more extended, flexible virtual learning experience over several months, accommodating various schedules and learning preferences.

Why Enrol? Gain valuable insights from experts in the field, update or refresh knowledge without extended time away from the office, and explore the multifaceted challenges of renewable energy projects, including infrastructure, legislation, and market developments.

Energy professionals may choose the modules that focus on the project and business management aspects (Modules 1, 9) or on the engineering attributes (Modules 2, 3, 4). Module 5 showcases Geothermal energy. In Module 6, renewables enter the fossil fuel realm, and Module 7 highlights hydrogen energy storage. Module 8 Highlights Abandonment strategies.



Duration: 2 to 5 Days

Designed for: Dedicated professionals, including asset team members, reservoir engineers, electrical engineers, team leads, and project managers. Nine half-day modules have been tailored, of which participants would be attending a minimum of five modules. The course can be rolled out over one week face-to-face or up to several months (fully or partly as virtual learning modules).

TRACS International

For more than 30 years, TRACS International has provided training, reservoir studies and audits to the energy sector. TRACS tutors run, on average, 150 training courses annually. TRACS experts deliver state-of-the-art content on conventional and energy transition projects, including geothermal, CCUS and subsurface energy storage, by working closely with a diverse portfolio of international clients and fostering close links with academia. The training and consultancy services cover technical, commercial and business assurance aspects from subsurface through wells, facilities, HSE, and compliance to economics.

EPConsult Energies

is a UK-Danish independent engineering and technical consultancy renowned in the oil, gas, and renewable energy sectors. Since its inception in 2010, EPConsult has consistently delivered innovative, state-of-the-art solutions underpinned by a commitment to engineering excellence. The distinguished experts at EPConsult possess a profound understanding of technical solutions, ensuring that every project is approached with precision, innovation, and deep technical insight.

Engineering the Energy Transition continued

Course Content:

Module 1 - Engineering the future of energy

Arndt Peterhaensel, Martin Larsen
The energy transition: challenges and components, drivers and solutions.

Module 2 - Handling the load

Roy Evans
Electrification – the re-engineering behind ‘net zero’: cables, grids and infrastructure needs, bottlenecks, scales and storage.

Module 3 - Where the wind blows

Roy Evans
Expanding technologies 1 – wind: onshore versus offshore; fixed versus floating; scale, design and cost.

Module 4 - We follow the sun

Roy Evans, Martin Larsen
Expanding technologies 2 – solar: photovoltaic versus thermal; onshore versus offshore floating; differences, limits and new developments
Why Desertec did not fly - yet.

Course Duration:

2 to 5 days virtual instructor led training (vILT). Core content can also be distilled into a one or two day workshop.

Other courses available from this series:

Modelling for CCS Projects
Carbon Capture and Storage (CCS)
Energy Transition in a Day
The Energy Transition – Key Components
The Energy Transition for Business

Module 5 - Well grounded: location, location, location.

Tim Wynn, Jerry Hadwin
Expanding technologies 3 – geothermal: shallow versus deep; heat versus power; niche or pillar. Just another fracc?

Module 6 - From grey to green

Mark Cook, Ed Stephens, Martin Larsen
CCUS: feasibility, modelling, planning, monitoring, risks and challenges. Shrinking carbon-footprints in oil and gas developments; green replacing grey.

Module 7 - the lighter side: hydrogen energy storage.

Roy Evans, Tim Wynn
Blue versus green; electrolyzers and batteries; micro or macro, short- or long-term; energy availability 24/7; generation versus load; capacity, storage, costs.

Module 8 - And in the end...

Roy Evans, Steve Jewell
Sustainable engineering: decommissioning and recycling; planning end-of-life strategies for wind and solar; manufacturing, life extension, repowering; impacts, challenges and frameworks.

Module 9 - how do we pay for it?

Angus McPhail
Commercial aspects; cost drivers; project planning, decision gates.

Course Tutors



Arndt Peterhaensel PhD
Geoscientist, Global Head of Training (TRACS)



Tim Wynn PhD
Reservoir Systems and Geothermal



Mark Cook BSc, MBA
CCS Screening Practitioner
Reservoir Engineer



Ed Stephens PhD
Reservoir Engineer,
Reservoir Modelling



Jerry Hadwin BSc, MEng
Geothermal & CCS,
Reservoir Engineer



Martin H. Larsen MSc
Renewable Energy
and Risk Specialist



Angus McPhail
MSc (Stirling et Surrey),
PGCertLT, FHEA, ASIP
Business Analysis &
Finance, Economics
Legal & Regulatory



Roy Evans MSc
Renewables Operation
& Commercial Specialist



Stephen Jewell
CEng, FIMMM, BEng
Petroleum Engineer
Well Design and Integrity