

# HOT



## ENERGY TRANSITION TRAINING COURSES

High-Impact Courses for a Sustainable Future



## ENERGY TRANSITION TRAINING – UNLOCK THE FUTURE



### BE AT THE FOREFRONT OF THE GLOBAL ENERGY REVOLUTION

Join our HOT courses on energy transition and contribute to a sustainable future! Experience immersive learning, dive into real-world case studies and gain the expertise needed to tackle today's industry challenges.



#### Carbonate Reservoir Characterisation and Modelling for the Energy Transition (RES62)

5 days

This interdisciplinary course integrates modern reservoir modelling and reservoir engineering concepts to address and overcome the key challenges encountered when creating meaningful static and dynamic reservoir models of (fractured) carbonate reservoirs across a range of subsurface reservoir applications that support the transition to a sustainable low-carbon energy future.



#### Direct GHG Emissions Inventory Compiling for Upstream Oil & Gas (FIN10)

3 days

This course delves into the technical aspects of greenhouse gas (GHG) accounting, focusing on methodologies, standards, and strategies for successfully compiling carbon inventories. It addresses the unique challenges faced in the oil & gas industry.



#### Fundamentals of Renewable Energy Engineering (E-Learning)

Self-Paced

This extensive e-learning course covers all the fundamental concepts and operation of renewable energy generation systems that may be used in energy transition scenarios to achieve net zero targets. It provides a solid and comprehensive foundation about renewable energy engineering practices. IChemE-accredited course (35 CPD hours).



#### Geo-Energy and the Global Energy System – An Introduction (ETRO7)

5 days

This course provides an overview of the global energy system and all its components including recent developments on all continents. It showcases present-day exploration and development of hydrocarbons as well as future sustainable new energy projects like geothermal. It also discusses the way forward in the energy transition with geo-energy and the subsurface playing a vital role.



#### Integration of Oil & Gas Infrastructure for the Energy Transition (FAC14)

2 days

Various new energy carriers and concepts for net-zero emissions are being developed in parallel to the ongoing operation of our industries and transportation sectors. This course provides insights into the currently emerging technologies, changing legal boundaries and the potential of the existing oil and gas infrastructure to accommodate these developments.



#### Introduction to Energy Transition (ETR910)

3 days

This course will cover key aspects of renewable energy solutions, including how they can integrate together to replace the reliability of supply we have been used to from fossil fuels.



#### Naturally Fractured Reservoir Modelling and Simulation for the Energy Transition (RES61)

5 days

This course addresses key concepts and challenges encountered when modelling and simulating naturally fractured reservoirs and provides practical guidelines for creating meaningful reservoir simulation models that support the transition to a sustainable low-carbon energy future.



#### Business Development for Subsurface Decarbonisation Projects (PBM45)

3 days

Upstream organisations seem to be ideally prepared to engage in subsurface decarbonisation ventures like geothermal and the storage of CO<sub>2</sub>. The safe and cost-efficient delivery of these projects is likely to become a critical element for the future competitiveness of E&P companies. This course highlights the case for change, criteria for successful business development projects and a range of medium-term scenarios for these business segments.

 **CCS for Reservoir Engineers (RES75)** 4 days

Carbon Capture and Geological Storage (CCS) will play a critical role in the portfolio of energy companies to meet climate goals and reach net-zero by 2050. The objective of this course is to discuss and present the required reservoir engineering skills for safe and effective storage of CO<sub>2</sub> in the subsurface geologic formations.

 **Geological Storage of CO<sub>2</sub>: Pick the Right Reservoir (RES71)** 5 days


This course addresses essential questions for a CO<sub>2</sub> storage project by using historical practices developed in the oil and gas industry and by adapting engineering design concepts to the CO<sub>2</sub> storage task.

 **Subsurface CO<sub>2</sub> Sequestration (RES73)** 5 days

This course will develop your understanding of the fundamentals of subsurface CO<sub>2</sub> sequestration or CO<sub>2</sub> storage in saline aquifers, depleted or producing hydrocarbon reservoirs and methane coalbed seams. It provides scientific principles and mathematical tools to help in the design and selection of subsurface CO<sub>2</sub> sequestration projects.

 **Decision-Based Geothermal Field Development (ETRO8)** 5 days

This course will go over the benefits and opportunities, but also the challenges and potential risks, of transitioning the energy industry towards geothermal projects to meet sustainability goals and attain net-zero emissions. The course presents structured workflows for successful development, drawing from expertise in the hydrocarbon sector, to expedite the adoption of sustainable energy solutions while equipping participants to navigate common project pitfalls.

 **Geothermal Drilling Technology (DRI13)** 3 days

Gain a comprehensive understanding of the technology and engineering required to successfully design and execute geothermal wells. The course covers basic drilling principles analysed from the point of view of a geothermal developer. The geothermal aspects of drilling processes and how they affect the well plan, well construction and overall budget are also presented.

 **Geothermal Engineering (ETRO2)** 5 days

Learn about all aspects and scales of geothermal use, from preliminary resource assessment to project implementation. The course will build up the delegates' knowledge and understanding of geothermal technologies, their current level of maturity and international uptake.

 **Geothermal Exploration & Development (ETRO9)** 5 days

This course will address questions about why a major move in the energy industry towards geothermal developments is required to achieve sustainability goals and net-zero emissions. The benefits, opportunities, but also challenges and risks of geothermal exploration and development projects will be presented and discussed.

 **Petrophysics for Geothermal Applications (PPH940)** 2 days

This course provides a practical guide of how to use and interpret well logs measured in the vicinity of planned geothermal sites to reduce uncertainties when assessing the feasibility of geothermal energy utilisation. This hands-on course is results-oriented and particularly beneficial for professionals who want to make meaningful petrophysical assessments for their geothermal challenge.

 **Hydrogen Exploration – Is it a New Game Changer? (ETRO6)** 1 day

The objective of this course is to introduce natural hydrogen as a potential future clean energy resource and how to explore for it as it may become the next game changer in the energy industry providing a clean and sustainable solution for part of the global energy demand.

 **Underground Hydrogen Storage – Storage Principles and Operations (ETRO3)** 3 days

Hydrogen is expected to take a leading role in a renewable energy system. This course deals with the current state of the art of underground gas storage, with the special fluid properties of hydrogen and the existing experience in the field. Also, special attention will be given to policies and regulations for safe operations of underground gas (and hydrogen) storage.

## THE WAY TO YOUR ENERGY TRANSITION TRAINING

Visit [www.hoteng.com](http://www.hoteng.com) or contact us at [training@hoteng.com](mailto:training@hoteng.com)!




**LOOKING FOR A PARTNER WHO'LL  
MAKE A DIFFERENCE?**  
[www.hoteng.com](http://www.hoteng.com)


## **HOT Engineering GmbH**

A Member of the HOT Energy Group

Parkstrasse 6  
8700 Leoben, Austria  
Tel. +43 3842 430 53-0  
Fax +43 3842 430 53-1  
[training@hoteng.com](mailto:training@hoteng.com)  
[hot@hoteng.com](mailto:hot@hoteng.com)

 [linkedin.com/company/hotenergygroup](https://www.linkedin.com/company/hotenergygroup)

 [twitter.com/hotenergygroup](https://twitter.com/hotenergygroup)

 [youtube.com/@hotenergygroup](https://www.youtube.com/@hotenergygroup)