

Training - Introduction to Geothermal Energy Uses and Operations



GEOTHER-EN-P



Face-to-face only



3 days

This course provides an introductory knowledge of geothermal energy uses and operations

Level

Awareness

Public

Technicians and decision makers of the G&G, Reservoir engineering, drilling, construction, production and maintenance domain but out of geothermy discipline

Objectives

Attendees will be able to implement the following skills:

- Understand how geothermal energy works, from production to usage
- Know about exploration and evaluation techniques
- Learn about technical and safety specifics in geothermal well drilling and operating

Pedagogical & technical resources

- Case studies
- Numerous illustrations and videos

Assessment of achievements

- Trainees are assessed throughout the training through practical application phases and interactions with the trainer
- A final on-the-spot evaluation may also be carried out at the end of the course and/or at the end of each module using tests designed to verify the learners' understanding and assimilation of the knowledge linked to the training objectives

Prerequisites

No prerequisites are necessary to follow this course

Responsible

IFP Training instructors, with expertise in the field and trained in modern teaching methods adapted to the specific needs of learners from the professional world

Program

PART I: INTRODUCTION TO GEOTHERMAL ENERGY

EARTH, AN ACTIVE PLANET

Earth structure and tectonics.
Thermal regime of the Earth.

HEAT FLUX & GEOTHERMAL GRADIENT

Theoretical considerations on heat transport and storage in rocks.
The geothermal gradient.

RESERVOIR TYPES & USES

Dry rocks, porous and fractured reservoirs.
Geothermal single wells and doublets.
Geothermal heat exchanger.

DIFFERENT KINDS OF RESOURCES

Low temperature.
High temperature.

APPLICATIONS OF GEOTHERMAL ENERGY

Direct use of heat.
Power generation.

PART II: FROM EXPLORATION TO PRODUCTION

EXPLORATION

Exploration techniques.
Identification of potential reservoirs and geothermal resources.

DRILLING A WELL

Specifics of geothermal well planning.
Drilling issues: well stability and drilling fluid cooling.
Drilling risks: steam, gases, and seismic events.
Well stimulation.

EVALUATION

While drilling: mud-logging and temperatures.
After drilling: well evaluation and testing.

OPERATION HAZARDS

Geological.
Environmental.
Technical.

PRODUCTION

Geothermal plants and networks.
Pros and cons of geothermal energy.

Sessions

Rueil-Malmaison - From 11/02/2026 to 11/04/2026

3390 €/HT

To French entities : IFP Training is referenced to DataDock ; you may contact your OPCO about potential funding.
Please contact our disabled persons referent to check the accessibility of this training program : referent.handicap@ifptraining.com