

Enhanced geothermal is a rapidly growing renewable energy industry that will require a wide range of skillsets. Professionals can work on geothermal subsurface operations, which includes directional drilling and multistage hydraulic completions, or on power generation, which includes developing and operating Organic Rankine Cycle power plants. Across all operations, the geothermal industry employs new career entrants — both skilled workers and those with professional degrees. Geothermal projects involve drilling, cementing, hydraulic stimulation, well engineering, snubbing, flo-back operations, wireline logging, and mudlogging. They require drilling and completions crews as well as electricians, pipefitters, millwrights, and other construction laborers.



Why people like working in this field:

As a fast-paced, growing industry, geothermal offers the opportunity for oil and gas professionals and new-career entrants alike to drive innovation and work on first-of-its-kind renewable energy projects. The Department of Energy aims to grow next-generation geothermal 60x by 2050, catalyzing significant job growth insulated from the booms and busts of traditional oil and gas. Geothermal represents an exciting marriage of old and new; fossil fuel professionals and craft laborers can leverage their previous experience while tackling new problems and expanding their skillset in this rapidly evolving industry. Careers in the geothermal industry are varied, dynamic, hands-on, and high impact.

A Sample of Geothermal jobs:

- Drilling
- Stimulation
- Well-Control
- Truck Driving, Water Hauling, and Crane Operation
- Workover Rig
- Cementing
- · Wireline Logging
- Directional Drilling
- Snubbing
- Flo-back Services
- Downhole tools and fishing
- Well perforation
- Frac-plug installation
- Directional drilling engineering
- Measurement while drilling engineer
- Engineering supervisors
- Mud loggers
- Geologists
- Mud engineers
- · Electrical engineers
- Electricians
- Pipefitters
- Millwrights
- Iron workers
- Welders and hardbanders
- Construction workers
- Crane operators









What makes a good candidate for on-site EGS roles:

Qualifications and requirements vary by scope of work and position. Typical requirements for entry and midlevel careers in the geothermal industry include:

- · High school diploma or equivalent
- · Current and valid driver's license for some roles
- · Positive attitude and strong work ethic
- · Attention to detail and safety
- Strong verbal communication skills, ability to effectively coordinate engineering processes and operation of heavy machinery
- Ability to read and interpret engineering drawings
- Strong mathematical skills and basic reasoning ability
- Ability to problem solve
- Basic reading comprehension skills
- Backhoe and skid steer experience beneficial for some roles
- Prior experience in upstream oil and gas operations is tremendously applicable to careers in the geothermal industry, especially for subsurface operations
- Depending on the specific job, experience in geology, mechanical engineering, electrical engineering, physics, reservoir engineering, hydraulic engineering, heavy machinery operation, welding, and other construction trades can all be helpful skillsets

Career pathway

(titles and time vary by product service line and vendor):

- Apprentice/Trainee/Short-Service Employee (1-2 years)
- Operator Assistant or Operator (2–3 years)
- Supervisor (4 years)







