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The US Geothermal Industry Can Help Oil and Gas Workers

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Takeaways

- In the wake of market volatility and a waning US oil and gas workforce, the geothermal industry could provide gigawatts of cheap, reliable energy, and create thousands of jobs.
- A Third Way-commissioned study shows that US geothermal deployment can create up to 39,400 construction and 24,200 operation and maintenance (O&M) jobs per year in the US by 2050, with many of these jobs rooted in oil and gas industry expertise.
- Unlocking the full energy and economic benefits of geothermal energy in the US requires smart policymaking: permitting reform, more funding for research, development, and demonstration (RD&D), diversifying financing mechanisms, and mapping subsurface resources.

The war in Iran has thrown global oil and gas markets into their worst volatility in modern history and heightened concerns in the industry. Even before the conflict, however, the domestic sector was already struggling with a declining workforce.

But the evolving US energy mix still needs the American oil and gas workforce. Its expertise and skillsets are critical to building up a budding source of reliable, stable, and clean energy: geothermal.

The State of Oil and Gas

The most recent Dallas Fed Energy Survey reported an increase in oil and gas activity driven by higher prices in the first quarter of 2026, a seemingly welcome boost from more pessimistic past reports.

However, many industry experts believe this is only a temporary uptick, a function of an erratic oil and gas market:

"The war has caused a very temporary (and welcome) uptick in oil prices, but these will drop back as soon as hostilities end. This is a black swan event."

"How sustainable are current oil prices? Hard to make long-term commitments or to 'drill, baby, drill."

"Certainly the war will help profits this year. It remains to be seen if these will offset last year's losses."

"The uncertainties are currently off the charts. Who knows where we will be later this year?"

Quotes are anonymous and included in the Comments from the Survey Respondents section of the 2026 First Quarter Dallas Fed Energy Survey.

Despite record US oil and gas production, domestic employment in the industry has steadily declined, losing over 252,000 workers over the past decade. Technological innovations, such as automated rigs and remote drilling, have enabled companies to produce more oil and gas with fewer rigs and half the workforce.

While this helps a company's bottom line, it permanently eliminates these jobs for hundreds of thousands of Americans.

The challenging situation outlined above is twofold. First, to combat oil and gas market volatility, we need to invest in energy sources that are more resilient to international market dynamics. Second, to uplift oil and gas workers, we need to create jobs that are accessible to them and leverage their existing expertise and skillsets.

Establishing a nationwide geothermal industry can address both issues.

Impact of Geothermal on the Oil and Gas Workforce

Geothermal energy has the potential to provide stable, reliable, and consistently cheap energy, while also providing an abundance of well-tailored jobs for oil and gas workers.

Research commissioned by Third Way from the Louisiana State University Center for Energy Studies (LSU-CES) shows that nationwide geothermal deployment can create

between 7,400-39,400 construction and 6,500-24,200 operation and maintenance (O&M) jobs per year in the US by 2050.

> Many geothermal jobs rely on expertise and skillsets rooted in the oil and gas industry, ranging from construction laborers, heavy-duty operators, and maintenance workers to drilling crews and well maintenance personnel, including roustabouts, derrick operators, and service unit operators.

To maximize the economic and energy benefits of the geothermal industry, including vast new employment opportunities for oil and gas workers, the US needs policies that accelerate project deployment nationwide. These include:

- **Permitting reform:** The federal permitting process is one of the main obstacles holding back clean energy deployment. But improving federal agency capacity, updating categorical exclusions while maintaining high safety standards, setting strict timelines for permitting review, improving geothermal leasing processes, etc., can streamline and expand geothermal deployment.
- **Boost funding for research, development, and demonstration (RD&D):** Today, geothermal technology in the US is primarily deployed in the West, where underground hot water systems are naturally concentrated. Robust federal support for RD&D across a broad suite of geothermal technologies at the Department of Energy can advance commercialization and expand deployment beyond the West.
- **Diversify financing mechanisms:** The geothermal industry is comprised of developers with varying technology maturity levels and projects with different deployment needs. Diverse federal financing mechanisms can enable a wider variety of developers to access the right type of capital that best aligns with their priorities.
- **Map subsurface resources:** The biggest barrier to geothermal buildout is the high costs and risks associated with geothermal resource exploration, i.e., finding the right geologic characteristics to produce enough energy. Increased investment in nationwide subsurface mapping efforts, such as the Earth Mapping Resources Initiative (Earth MRI), can enable developers to efficiently identify promising project sites.

Both conventional and next-generation technologies are on the fast-track to commercialization, and an influx of skilled workers paired with ambitious policymaking will only accelerate deployment and make geothermal a viable energy source for all Americans.

The full report is available here.