Geothermal Solutions

bhge.com
Geothermal wells are unique energy producers and each one presents its own unique challenges, including logistics, economic, and environmental concerns that go beyond simple high-temperature chemistry. From initial feasibility studies and wellbore construction, through stimulation, production, and finally abandonment of your geothermal well, BHGE draws on more than 40 years of geothermal experience, reliable equipment, and specialized technologies to safely and efficiently tap into this clean, renewable energy source.

Trust in proven technology and a commitment to flawless wellsite execution

When using a customized BHGE geothermal service, you gain access to a comprehensive line of products and services engineered for reliable performance in high-temperature environments. These field-proven products and services include:

- High-performance drill bits to keep you in the hole longer, reducing trips and saving you money
- Advanced drilling technologies to deliver fast, efficient wellbore construction, including specially engineered motors for extreme operating environments, automated drilling systems, and high-temperature measurement-while-drilling (MWD) technologies
- Superior drilling fluids that ensure reliable performance and maintain critical fluid properties in some of the world’s most hostile drilling environments
- Comprehensive formation evaluation technologies ranging from surface and wireline logging to downhole core recovery, facilitating a better understanding of your geothermal reservoirs for increased productivity
- Optimized cementing services for reliable wellbore isolation, protecting both your well and the environment
- A full line of completion and production technologies, including coiled tubing and multilateral systems, and large-volume electric submersible pumping (ESP) systems engineered for extended performance in demanding, high-temperature environments
- Fast and efficient fishing services, facilitating rapid removal of wellbore obstacles with minimal nonproductive time
- Specially engineered chemical services and treatments, including proven scale and corrosion inhibitors, and capillary injection systems to help ensure continuous production without intervention
- Optimum landbreak services to help ensure continuous production without intervention

As the geothermal industry’s premier provider of wellbore construction services, Baker Hughes, a GE company (BHGE), offers high-temperature products and services for geothermal development around the world—delivering improved efficiency, reduced development costs, and extended well life.

Optimize geothermal planning and execution

By offering a complete range of capabilities and, when necessary, forging strategic alliances with others in the service industry, our BHGE Integrated Operations group provides total wellbore planning, construction, and management. This includes a detailed, pre-well planning process to design a customized wellbore construction plan tailored to the specific needs of your geothermal project.

As part of an integrated BHGE pre-planning process or as a standalone service, our Reservoir Development Services (RDS) group can conduct feasibility studies, help accurately estimate well costs, and generally assist you with your field development plans. Our RDS experts can also provide advanced well engineering and design, well placement reviews, as well as geomechanical, reservoir, and borehole stability analyses—ensuring a detailed wellbore construction program with maximum efficiency and no surprises.

Another key component in our ability to provide cost-effective, fit-for-purpose solutions is our unmatched geothermal experience. At BHGE, we’ve earned our reputation for exceptional service and unmatched reliability through a combination of our field-proven, high-temperature products and our worldwide service structure. The result: efficient, cost-effective solutions that speed up the development and value of your geothermal assets.

Push geothermal performance envelopes with new technologies

Our ongoing investment in the research and development of high-temperature wellbore technologies is just one example of our commitment to the clean, renewable energy delivered by geothermal wells. Today, our experts continue to develop new technologies for both traditional geothermal wells and those requiring enhanced geothermal systems.

This commitment is evidenced by a substantial research and development program that encompasses multiple technology development centers, an extreme temperature well simulator, and a dedicated geothermal research facility in Celle, Germany. Additionally, we have made it our goal to train our field personnel in the special challenges encountered during geothermal wellsite operations.

Because of this, we deliver both the necessary high-temperature equipment and products as well as the qualified, experienced personnel necessary to run them effectively and efficiently.

Ask your BHGE sales representative how we can help you ensure reliable, cost-effective performance with maximum productivity on your next geothermal project.