Geothermal solutions
Energy production is evolving

The IEA estimates that a 10% annual increase in geothermal well production over the next 10 years is the bare minimum needed to meet future demands on geothermal energy. With 2020 generation rates of 15.4 GW, the world will need geothermal sources to provide at least 40 GW annually by the year 2030 and 103 GW by the year 2040 to meet global carbon neutrality by 2050.

Baker Hughes is the geothermal energy expert

Baker Hughes is the only company in the world that can provide subsurface and surface products and services from planning to power generation. We are leaders in technology and commercial innovation, and hold strong partnerships in the services community. Baker Hughes provides geothermal power management responsive to the specific needs of FMG projects.

Baker Hughes geothermal experience
Baker Hughes’ geothermal portfolio spans subsurface to power generation

Baker Hughes is a leader in providing high-temperature products and services for geothermal development around the world by offering a complete range of capabilities and when necessary, forging strategic alliances with others in the service industry. From initial feasibility studies and wellbore construction, through stimulation, steam production, and power generation of your geothermal well, Baker Hughes 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.

Our comprehensive technology portfolio delivers reliable and predictable performance.

Our advanced technology tackles challenging rock formations, high temperatures, and harsh well conditions to tap geothermal energy’s potential. Our focus on geothermal technology ranges from emulating the wellbore conditions of geothermal wells, to testing high-temperature materials and components, full bottomhole assemblies, submersible pumps and total integration and project management for geothermal well construction and power generation.
Baker Hughes has years of experience FMG can count on

- We have over 40 years of expertise working in harsh geothermal environments
- We have supplied equipment, products, and services on over 1,800 geothermal wells in 25 countries
- We are committed to the research and development of high temperature drilling equipment and products
- We have qualified experienced personnel and high temperature equipment & products
- We have a substantial R&D program dedicated to geothermal specific technology, including high temperature drilling and efficient power production from geothermal resources
- Our subsurface experts, located in nearly every geothermal region, offer a rich mix of skill in hot reservoirs, geomechanics, and reservoir chemistries
- Our centralized HQ Geothermal Solutions organization manages and ensures knowledge transition for execution excellence, consistently determining the right technology for each application
- Our surface power generation engineers apply their expertise to original equipment manufacturer in power generation, plant management, control systems and condition monitoring
Our geothermal experience is global

Baker Hughes’ experience in subsurface geothermal well development and production combined with our history in reliably conveying the heat transfer and producing power from it gives us the unparallel capability to create high quality geothermal power generation while reducing project capex and time to getting power generation online.

Integration and project management ensure more efficient operations

Our project teams are experienced in working in the most challenging conditions and trained to execute efficiently in the geothermal field.

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Our geothermal leadership team is seasoned and global

- **Ajit Menon**, Global Geothermal Leader
  Ajit Menon leads the Baker Hughes geothermal business, which includes leadership of both subsurface and surface disciplines. During his 25-year career at Baker Hughes, Ajit has senior management positions in operations, sales, marketing, technology, and business around the globe.

- **Maureen Carlson**, Global New Energy Sales Leader
  Maureen Carlson enables technology and partnerships to advance Baker Hughes new energy solutions. Prior to her current role, she held business development and sales leadership roles in business development in the Baker Hughes Turbomachinery Process solutions business.

- **Jose Iguaz**, Global Geothermal Solutions Leader
  Jose Iguaz is responsible for geothermal commercial activities and operations, bringing to the team more than 20 years of experience at Baker Hughes. His background includes operations, business development, sales, and engineering across multiple spectrums of the energy industry, including geothermal and underground gas storage.

- **Ghazal Izadi**, Global Geothermal Discipline Lead
  Ghazal Izadi drives the development of geothermal and unconventional applications and solutions for Baker Hughes. She brings with her a wealth of experience in advanced production mechanisms, having led several high-value projects for customers worldwide.

- **Taylor Mattie**, Global Geothermal Innovations Lead
  Taylor Mattie is responsible for growing the Baker Hughes geothermal business via technology development, external partnerships, marketing, investments, and acquisitions. He has particular focus on organic and inorganic technology and capability development. Taylor brings a background in research & development and engineering to the team.

Our integrated approach mitigates risk and gets projects online faster

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Service delivery models improve efficiency and reduce risks

Because geothermal projects require high capital investment up-front, you may need a partner with the confidence and willingness to invest in the project’s success.

Our understanding of a project’s risks, both subsurface and surface, as well as our access to capital resources, enables us to offer unique commercial opportunities through equity mechanisms and financial lending practices.
Service delivery models

- We provide products and services through a range of delivery models, ranging from discrete supply to a turnkey approach, where incentives of the rig and EPC contractors are aligned with Baker Hughes.

- Models for service delivery are also paired with unique commercial and financial models that can only be offered by Baker Hughes. We want to be your partner, rather than your contractor.

Baker Hughes and carbon neutrality

**We will accelerate the reduction of our own carbon emissions.** We will achieve 50% carbon footprint reduction of all Baker Hughes production sites by 2030 and net-zero carbon emissions by 2050.

**We will promote your carbon emission reduction.** We will provide products and services with reduced emissions to decrease our customers’ respective carbon footprints for their operations, projects, and products.

**We will position for new frontiers.** We will innovate and develop new physical and digital technologies and business models to capitalize on energy transition.
Baker Hughes is ready to take geothermal forward

**WE ARE COMMITTED**

**Baker Hughes is committed to making energy cleaner, safer, and more efficient.** We are developing new geothermal technologies to help the world meet net-zero emissions targets. Geothermal isn’t new to us. Our experience includes 40+ years in the industry, working on 1800 wells in 25+ countries.

**We’re ready to take geothermal forward.** Advanced geothermal systems (AGS) and enhanced geothermal systems (EGS) promise new opportunities.

**WE ARE DIFFERENT**

**We connect subsurface and surface to deliver commercial success.** We have horizontal expertise in subsurface equipment and systems as well as surface acumen and technology. We focus on outcomes. We are committed to reducing CapEx/TotEx, improving NPV, and increasing ROI.

**We reduce time to first power.** From feasibility studies to well construction and production integrity technology and services to turbomachinery, advanced process solutions, digital, and automation capabilities, we provide integrated rapid execution.

**WE ARE READY**

**Our value comes from what we know – and how we apply challenges.** We have expertise to assess and optimize reservoir models and well operations, from exploration to heat utilization. We have advanced technology to tackle reservoir evaluation, well construction, and geothermal power generation. We have proven project management to make geothermal projects economic.

**Our partnerships bring a complete solution.** From rig contractors to EPC companies, we provide the solution, start to finish.

**Our commercial models meet any need.** Our commercial payment is performance-linked and outcome-based.