



FREQUENTLY ASKED QUESTIONS ABOUT UTAH FORGE

What is the Utah FORGE project?

The Utah Frontier Observatory for Research in Geothermal Energy (FORGE) is a dedicated underground field laboratory for developing, testing, and accelerating breakthroughs in enhanced geothermal systems (EGS) technologies to advance the production of geothermal resources around the world.

What are enhanced geothermal systems (EGS)?

Enhanced geothermal systems (EGS), also sometimes called engineered geothermal systems, offer great potential to significantly expand the production of geothermal energy. Currently, geothermal power is generated from hydrothermal reservoirs. In the U.S., they are found mostly in the West. This restricts the locations of current geothermal energy developments. EGS technology will greatly expand the availability of geothermal energy resources.

The idea behind EGS is to apply methods and tools to extract heat from hot rocks below the surface which lack the same natural permeability that is required for productive hydrothermal reservoirs. This is achieved by enhancing existing fracture systems – the minute fractures and pore spaces between mineral grains so that water can be injected, heated, and produced to very hot temperatures to generate electricity in power plants on the surface.

How is Utah FORGE funded?

Utah FORGE is funded by the U.S. Department of Energy.

Where is Utah FORGE located?

Utah FORGE is managed by the Energy and Geoscience Institute (EGI) at the University of Utah. However, the field laboratory is located in Beaver County in southwestern Utah, near the town of Milford.

Why is the Utah FORGE research important?

If we could capture even 2% of the thermal energy at depths of ~2 to 6 miles, we could provide 2000 times the annual energy use in the United States. New technologies, including Enhanced Geothermal Systems being investigated at Utah FORGE will help to extract this energy.

Is geothermal energy used today?

Geothermal energy has been used for thousands of years, initially for bathing, cooking and hot water supply. For the last 100 years, geothermal energy has been used to produce electricity, and the USA is the largest producer in the world. Utah ranks third behind California and Nevada in geothermal electricity generation, and there are three geothermal power plants in the southwest part of the state that produce a total of 73 megawatts, enough electricity to power 73,000 homes.