

Demonstration of soft stimulation treatments of geothermal reservoirs

Ann Robertson-Tait



After receiving her MSc in Geology at the University of Auckland, Ann began working at GeothermEx in 1985, eventually taking the leadership role in January 2020. With more than 35 years of experience in the geothermal sector, she has worked on geothermal projects in 30 countries, including more than 55 that have been developed for power generation (with a combined capacity of nearly 7 GW), and many more projects at earlier stages of exploration and development.

Ann Robertson-Tait is well known for her work on reducing the risks associated with discovering and proving geothermal resources and also has a keen interest in Enhanced Geothermal Systems (EGS). Currently, she is the Global Chair of Women in Geothermal (WING), which promotes the education, professional development and advancement of women in the geothermal sector. WING seeks gender equality in its membership.

A Perspective on Geothermal Risks

Geothermal energy is an important element of the global energy transition. It is a renewable source of heating and cooling at a variety of scales, including individual residences, apartment complexes, campuses and cities. Individuals and groups involved in such projects appreciate the clear and direct benefit of geothermal energy, making them part of the geothermal success story. The value of geothermal as a reliable, 24 x 7 source of clean electric power is less visible. Electricity consumers expect reliability and affordability but are typically unaware of the provenance of the power they buy and use. Most power consumers are not aware of geothermal energy as a baseload power source, nor its role in maintaining grid stability as fossil fuels are replaced by intermittent wind and solar power.

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The perception of risk for complex technical projects depends on the level of awareness, understanding and acceptance. Consumers quickly understood the benefits of wind and solar power and they wanted it – no, they demanded it – and their energy providers responded. The geothermal sector has recognized the need for increased understanding by the public and is beginning to build consumer awareness about geothermal's benefits while driving policy decisions that accelerate its deployment.

Local utilization of geothermal heat is a useful starting point for the geothermal awareness campaign, allowing the conversation to expand into the benefits of geothermal power generation, as well as the risks. Recognizing the vast potential of Enhanced Geothermal Systems (EGS), the DESTRESS project examines ways to reduce the risk of induced seismicity, the biggest concern surrounding EGS development in populous areas. By including public outreach and information dissemination in its program, DESTRESS is advancing the geothermal conversation toward the eventual acceptance of EGS, an important element of Europe's energy future.

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