

MICROSEISMIC AWARDED \$1,096,839 FROM DEPARTMENT OF ENERGY (DOE) MICROSEISMIC MONITORING OF CO2 SEQUESTRATION

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HOUSTON, TX, UNITED STATES, June 13, 2023 /EINPresswire.com/ -- [MicroSeismic](#), Inc. (MSI) will receive \$1,096,839 as part of a Phase 2 Department of Energy SBIR Grant program in support of scientific energy innovation and clean energy development.

The Phase 1 DOE/SBIR grant MicroSeismic received in 2022 covered the modeling, design, and planning for the installation, and operation of a turnkey microseismic monitoring service in support of CO2 sequestration, and the selection of a test site on which to validate the service.

The Phase 2 DOE/SBIR grant will fund a test project that will include the installation of a system under the brand name [CO2SeQure](#)[®] which consists of a permanent BuriedArray[®] of microseismic sensors, autonomous data collection and telemetry, and automated event detection and location, all connected to the CCS facility operations center. MSI has evaluated several potential sites including CarbonSAFE projects and has a final list of three projects from which to select the optimal production site.

The new MSI monitoring service, which is based on its BuriedArray[®] passive seismic monitoring system, will help ensure the safe, efficient, and compliant operation of industrial-scale CO2 storage facilities. The system can efficiently and economically detect and allow for the mitigation of induced seismic hazards, monitor the integrity of the storage reservoir, and track the growth of the injection plume and pressure field.



[Dr. Peter M. Duncan](#), CEO & Founder of MicroSeismic said; “We truly appreciate the DOE/SBIR continuing support, this important grant enables us to test in a real-world situation the turnkey service



design developed during Phase 1 of this project. Even though this service is based on our 20 years of experience in oil field microseismic monitoring, the field trials will allow us to tune this service to the specific needs of the sequestration industry. Safe and efficient geologic sequestration of CO2 will require monitoring, reporting, and validation (MRV) during injection to

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Dr. Peter Duncan, CEO

ensure the integrity of the storage formation and caprock. It is vital for the environment to monitor and measure the extent of the CO2 plume so that injection rates can be controlled and leakage, as well as induced seismicity from the geological reservoir, can be prevented.”

Charles D. Gorecki, CEO of Energy & Environmental Research Center (EERC) said; “The permanently installed shallow BuriedArray® system proposed by MSI seems to have the potential to achieve a robust 24/7 monitoring system to support CCS project development (through geologic storage), with the ability to accurately detect

induced seismicity, monitor cap rock/storage reservoir integrity and potentially track the CO2 plume front via 3D/4D seismic recording.”

Through the DOE Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs, the federal government enables and encourages small businesses that power the U.S. economy and generate thousands of jobs, both directly and indirectly. The DOE SBIR/STTR awards seek to transform DOE-supported science and technology breakthroughs into viable turnkey products and services. The awards also support the development of specialized technologies and instruments that aid in scientific discovery.

In summary, we have received three (3) grants in total from the DOE and MicroSeismic continues to thrive as it repurposes its extensive geophysical expertise in support of a net-zero initiative.

About MicroSeismic, Inc. and CO2SeQure:

We Listen. We Protect. We Care.

MicroSeismic, Inc. helps our clients protect their assets, operations, and the environment, as the world transitions to reliable and secure sources of energy.

We began in 2003 with a mission to bring passive seismic technology to the oil field. As our expertise has grown, so has the list of applications for our geophysical technology.

- FracRx® - We have successfully monitored the stability of wellbores and frac-driven interactions in tectonically active areas.
- CO2SeQure® - We have developed technology to monitor CO2 sequestration (CCUS) for MRV.
- MicroThermal Energy - We can apply stimulation monitoring and modeling technology to enhanced geothermal systems (EGS). Better Stimulation = Greener World
- KarstAlert® - We have developed a methodology to detect sinkhole growth and development.

The shale boom of the mid-2000's overwhelmed us with demand for hydraulic fracture monitoring, however today, priorities have changed. While frac monitoring is still a business driver for us, new opportunities have expanded our original vision to include environmental markets. Adaptable technology and 20 years of experience allow us to apply passive seismic techniques to a wide spectrum of problems relevant to the oil field and beyond.

#WeListen #WeProtect #WeCare

#CarbonSequestration #CCUS #Sinkhole #Geothermal #ESG #Environment #FDI

#MonitoringMatters

For more information about CO2SeQure visit: www.microseismic.com

More information about all the projects announced by DOE is available at the following link:

<https://science.osti.gov/sbir>

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