



**Gas Turbine Association Response to  
US Department of Energy Request for Information for  
Clean Energy Demonstration Program on Current and Former Mine Land  
August 15, 2022**

The Gas Turbine Association (GTA) is a membership organization established in 1995 as the *Unified Voice of the Gas Turbine Industry*. GTA's mission is to communicate the message that gas turbines are, and will continue to be, a vital component of power generation in the United States of America and around the globe. The GTA is comprised of the major gas turbine manufacturers, researchers, and service providers in the energy market, with US gas power generation equipment exports of \$12BB per year, providing more than 200,000 high paying jobs across the country. As the world transitions towards a net-zero carbon energy future, gas turbine technology will be essential for under-pinning and securing a sustainable, clean, efficient, and reliable generation mix. Today, gas turbines produce approximately one-third of our nation's electricity and power a large proportion of our nation's pipeline infrastructure.

Category 5: Mine Land Program Implementation: Which clean energy technologies should DOE focus on or prioritize in implementing the Mine Land program?

The Gas Turbine Association encourages the Office of Clean Energy Demonstrations to prioritize fossil-fueled generation with carbon capture, utilization and storage as part of the Mine Lands program. There are a range of relevant technical and operational issues with these technologies that additional demonstration will help industry address. Furthermore, certain former mine lands and facilities may offer unique opportunities to identify and problem-solve against key technical and operational challenges in enabling carbon use and sequestration, such as managing injection and storage of carbon, and testing ways to characterize and/or minimize seepage/escape of that carbon from a variety of geological formations and types of rock. Gas turbines offer great promise in providing highly efficient dispatchable power for a broad range of applications, including on-site power generation, mechanical drive for industrial use, and compression and injection of waste gases among other uses. The program may also be able to be a testbed for hydrogen combustion in smaller-scale turbines, whether from renewable sources or as a byproduct of other processes.

In addition, leveraging the Mine Lands program to test development and deployment of microgrids for industrial applications may also be a beneficial element of the overall program. Many mine lands are in remote areas and having microgrid development, deployment and testing as part of the eligible scope of projects may be quite helpful in demonstrating these technologies, especially as our country will need to ramp up responsible and low-impact mining operations to support Buy America requirements in a broad range of clean energy and defense-related industries.