

*Pioneering Start-up Selected from Among over 3,600 ARPA-E Applicants
Focuses on Converting Waste Heat into Usable Electric Power*

Cary, NC, November 5, 2009 – Phononic Devices, Inc. has been selected for a \$3 million grant from the Department of Energy's new Advanced Research Projects Agency-Energy (ARPA-E). The grant will enable the company to further develop its new class of highly efficient thermoelectric devices that convert waste heat from industrial and commercial processes into usable electric power. Phononic Devices was one of only 37 companies selected by ARPA-E for funding to pursue “transformational” energy breakthroughs.

“We are honored to partner with ARPA-E to develop our unique thermoelectric technology,” said Dr. Anthony Atti, President and CEO of Phononic Devices. “With ARPA-E resources and support from our venture investors Venrock and Oak Investment Partners, we can expand our research team and accelerate device engineering.”

The Department of Energy estimates that more than half of all the energy consumed in the United States is wasted as heat, turning its recovery and profitable use into an area of intense interest. Phononic Devices’ approach combines proprietary design concepts, nanostructured materials, and a thin-film semiconductor platform to dramatically improve heat-to-electricity conversion efficiency. The company’s breakthrough will enable Thermoelectric Generators (TEG) that harvest waste heat for power generation; it can also be applied in reverse, enabling Thermoelectric Coolers (TEC) that can pump heat out of a system for cooling. Phononic Devices’ technology stands to unlock the latent \$125 billion market for thermoelectric energy harvesting, cooling, and refrigeration, enabling mass manufacturing and customer adoption at price points undercutting incumbent technologies. Phononic Devices will partner with leading semiconductor and thermoelectric institutions including the University of Oklahoma, the University of California Santa Cruz, and the California Institute of Technology in order to commercialize thermoelectric devices for power generation (TEG) and active cooling (TEC).

“The high-efficiency conversion of heat-to-electricity and vice versa could be game-changing across the energy landscape,” said Matt Trevithick, Partner at Venrock. “Whether to convert heat from combustion processes into electricity, or to replace compressors in air conditioning applications, Phononic Devices’ approach promises disruptive gains in energy efficiency.”