



**For Immediate Release**

**Cool Energy Inc. Awarded \$1 Million Grant from Department of Energy  
20kW Stirling Engine Converts Wasted Heat into Electricity for \$800 Million Market**

Boulder, Colorado – July 26, 2013 - Cool Energy, Inc., a clean energy power generation company with headquarters in Boulder, Colorado, announced today that it has been awarded a \$1 million Phase II Small Business Innovation Research grant from the U.S. Department of Energy.

The grant will support a program to demonstrate electricity generation from untapped heat from distributed geothermal sources. The grant will allow Cool Energy to build and test their first 20kW prototype Stirling engine, the “GeoHeart® Engine,” to generate electricity from co-produced liquids at oil and gas wells. The recoverable heat in these liquids is currently wasted, as is the potentially valuable heat from pumps and compressors, as well as geothermal heat from non-producing wells.

“If widely deployed in appropriate heat recovery sectors, our power generation technology could replace up to 300 fossil fuel power plants,” said Sam Weaver, CEO of Cool Energy.

The GeoHeart® Engine system will convert heat from liquids extracted from the ground to make zero-emissions energy. The Cool Energy technology will capture energy from liquids that are in the temperature range 100°C - 200° degrees Celsius. This temperature is ideally suited for the company’s low temperature waste heat recovery (WHR) system.

The heat can be safely and efficiently converted into electricity that can be used onsite to offset the power needed for the operation of the wells, or sold to the local utility and added directly into the power grid. This approach to oilfield power production will prevent some of the carbon emissions generated from these activities.

“Given recent advances in our designs, there is an opportunity for electricity cost savings and emissions reductions in oil and gas fields, which have significant thermal energy sources all around them,” said Weaver. “This is the most important increase in output capacity that Cool Energy has undertaken since beginning to develop Stirling engines for waste heat recovery six years ago.”

Cool Energy will also study another application of the GeoHeart Engine, using spent wells that are no longer producing petroleum to heat fluids to make emissions-free electricity.

Well data in 32 U.S. states by the National Renewable Energy Lab shows about 2.5 million well bores in the U.S., with about half a million active. According to a 2012 World Oil Magazine report, the annual well count in the U.S. was increasing at 3.2% per year.

Most of the wells with usable temperatures for the Cool Energy technology are in Texas, Louisiana, Mississippi, Oklahoma, Wyoming and California. The total market for power generation from co-produced fluids using a GeoHeart Engine system is \$500M to \$800M in the U.S.



### **About Cool Energy**

Cool Energy is a privately-held power conversion equipment corporation based in Boulder, Colorado. The company was founded in 2006 to develop a thermal-to-electrical power generation system for converting waste heat from engines and industrial processes into clean electricity. The company has received grants and contracts from the National Science Foundation, the U.S. Department of Energy, the U.S. Environmental Protection Agency and the Colorado Governor's Energy Office, and has 10 patents awarded or pending.

More information is available at [www.CoolEnergy.com](http://www.CoolEnergy.com).

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