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Ener-Core Powerstation EC250 To Be Installed at Santiago Canyon Landfill To Generate Clean Electricity

Project to Demonstrate Conversion of Low-Quality Gas from Closed Landfill to Energy Under Field Conditions

The Orange County Register features the company and the project in a May 1 article

IRVINE, Calif.-- Ener-Core's (OTCQB:ENCR) 250kW Powerstation EC250 will be installed at the closed Santiago Canyon Landfill in Orange County and will allow Orange County Waste & Recycling to generate clean electricity from a gas that is currently being flared. The installation is part of a renewable energy project made possible by the California Energy Commission's award of $1.5 million to the University of California, Irvine's Advanced Power & Energy Program (APEP) in January 2015. The project is consistent with APEP's mission to foster strategic alliances to facilitate the development and deployment of environmentally sensitive, sustainable power generation and energy conversion.

The project was approved by the Orange County Board of Supervisors. The California Energy Commission awarded the $1.5 million research grant to APEP in January. The partnership's task under the grant is to install and test a 250kW ultra-low emissions power plant at Santiago Canyon Landfill. As part of the partnership, Ener-Core will receive approximately $900,000 to build and install the EC250 Powerstation, and the power plant will use landfill gas created from solid waste decomposition to produce electricity for site operations, which, in turn, will lower the County's utility bill. Until now, the landfill gas at Santiago Canyon has been flared because it could not be used to fuel traditional power-generation technologies.

The aim of the project—a partnership between Ener-Core, the County of Orange and APEP—is to demonstrate the feasibility of converting low-quality landfill gas from a closed landfill into clean energy under field conditions. According to data from the Landfill Methane Outreach Program (LMOP) of the U.S. Environmental Protection Agency, at least 50 percent of the landfills in the U.S. are already at full capacity and hence closed. When landfills close, they typically continue to emit harmful greenhouse gases for as long as 50 to 70 years after closure. However, the quality of these gases typically falls drastically after a landfill has been closed, and hence it has historically not been feasible to generate energy from a landfill after closure. It's for this reason that most inactive landfills elect to flare (burn) the gas emissions, rather than use them to generate energy.

The first objective of this project is to demonstrate that the Ener-Core Powerstation can reliably generate clean energy from the low-quality gases of a landfill long after the landfill

has been closed. The site selected for this installation, the Santiago Canyon Landfill, has been inactive since 1996. While Ener-Core's technology has seen demonstrated success converting waste gas at an inactive landfill in Europe, this will be the company's first installation on a closed landfill in California.

An additional objective of the project is to meet or exceed emission destruction efficiency and validate reliability targets as defined within project specifications over a 12-month period. The project is expected to be operational by summer 2017 and all demonstration requirements must be met no later than May 31, 2019. If the initiative proves successful, Ener-Core's technology could be retained for long-term operation at the landfill, as well as additional landfills and industries in California, according to Orange County Waste & Recycling. Once the system is fully operational, Orange County Waste & Recycling anticipates cost savings of $240,000 per year. The project will provide applied research opportunities for graduate and undergraduate students at APEP who will develop and execute performance validation test plans to critically assess the project performance against its stated goals of generating 2GW-hr of electricity and reduce NOx emissions by nearly one ton per year versus the "business-as-usual case."

"Advanced technologies that utilize bio resources are a major step to reaching environmental and national goals," said Professor Vince McDonell, Associate Director of APEP. "We are pleased to lead the strategic alliance associated with this major demonstration."

"Creating clean energy power from landfill gas is a smart investment that helps the environment and advances science and engineering," said Board Chairman Todd Spitzer, who has championed renewable energy projects, including the new power plant being built at the County's Frank R. Bowerman Landfill east of Irvine. "Advancing important technology that helps the environment and potentially generates revenue is the best way for Orange County to do business as a leader in clean energy projects."

Alain Castro, CEO of Ener-Core, said, "Orange County, and Orange County Waste & Recycling, are recognized innovators in energy technology and environmental awareness, and we are honored to be a partner on this important project. Historically, converting low-quality gas to energy at closed landfills has not been feasible due to the poor quality of the gases that are emitted, and hence older landfills typically flare (burn) their gas emissions rather than use them productively. Ener-Core has a demonstrated history of converting waste gases to clean energy on a variety of industrial platforms, including landfills. We currently have an Ener-Core Powerstation deployed at a landfill site in the Netherlands, which has performed with great results, and we are confident our technology will perform similarly at this new site. Our solution offers an economically attractive and technically reliable solution for generating clean power from well over 1,000 closed landfills across the U.S., such that we can tackle a real environmental problem while at the same time contributing to the power needs of the future. Creating clean energy from landfill gas is a smart investment that helps the environment and advances science and engineering."

The Orange County Register recently interviewed the main stakeholders of this project at the Santiago Canyon site; further information on the project and these stakeholder discussions can be seen within the newspaper article at:

http://www.ocregister.com/articles/landfill-660309-electricity-core.html.

About Advanced Power & Energy Program

The Advanced Power and Energy Program (APEP) incorporates the National Fuel Cell Research Center and the UCI Combustion Laboratory into a comprehensive educational and research initiative to address the complex challenges associated with the transformation of energy into productive uses in the context of achieving and maintaining strict environmental goals. APEP bridges from engineering science to practical application in close collaboration with industry, agencies and national laboratories.

About Ener-Core

Irvine, California-based Ener-Core, Inc. (ENCR) designs, manufactures and has commercially deployed unique systems that generate base load, clean power from polluting waste gases including methane. Ener-Core's patented Power Oxidizer is the only solution of its kind that turns one of the most potent pollution sources into a profitable, "always on" source of clean energy. Ener-Core's technology offers a revolutionary alternative to the flaring (burning) of gaseous pollution while generating operating efficiencies and ensuring compliance with costly environmental regulations.

Ener-Core offers a variety of platforms including the 250kW Ener-Core Powerstation EC250 ("EC250"), the Ener-Core Power Oxidizer 333 KW Powerstation ("EC333") and the larger counterpart, the 2MW Ener-Core Powerstation KG2-3GEF/PO.

Cautionary Statement Regarding Forward-Looking Statements

Forward-looking statements contained in this press release are made under the Safe Harbor Provision of the Private Securities Litigation Reform Act of 1995. Information provided by Ener-Core, Inc., such as online or printed documents, publications or information available via its website may contain forward-looking statements that involve risks, uncertainties, assumptions, and other factors, which, if they do not materialize or prove correct, could cause its results to differ materially from historical results, or those expressed or implied by such forward-looking statements. All statements, other than statements of historical fact, are statements that could be deemed forward-looking statements, including statements containing the words "planned," "expects," "believes," "strategy," "opportunity," "anticipates," and similar words. These statements may include, among others, plans, strategies, and objectives of management for future operations; any statements regarding proposed new products, services, or developments; any statements regarding future economic conditions or performance; statements of belief; and any statements of assumptions underlying any of the foregoing. The information contained in this release is as of the date of this press release. Except as otherwise expressly referenced herein, Ener-Core assumes no obligation to update forward-looking statements.

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