

BRIEF DESCRIPTION

Recollect Energy creates thermoelectric generators (TEGs) that convert heat to electricity for semi trucks. Our technology is incorporated into a module that harvests waste heat from a semi truck's engine exhaust, generating electricity. This electricity lessens the alternator's load and increases a truck's efficiency by 2-4%. For truck operators that spend over \$100,000 annually on diesel, this system can reduce fuel costs by up to \$120,000 over its lifetime. In addition, standards proposed by the Environmental Protection Agency put increasing pressure on semi truck manufacturers to reach stringent efficiency levels. Our technology meets these proposed guidelines. Our exhaust-powered TEG improves efficiency without affecting the truck's performance.

MISSION

Recollect Energy's mission is to recover waste heat in efficiency-critical applications.

TECHNOLOGY AND SYSTEMS

Our innovative technology efficiently transfers heat into electricity more effectively than the majority of thermoelectric generators currently on the market. We have already made a 4 by 4 cm module that can produce 20W at peak while most of our competitors can only achieve 3-14W. We were able to achieve this by inventing a thermoelectric material that is easy to make, efficient and cost effective.

BUSINESS STRATEGY

Recollect Energy's business strategy is to design a specific thermoelectric module that has consumer applications, such as within the automotive exhaust recovery. We will establish strategic partnerships with major truck manufacturers in order to retrofit our modules and target existing truck owners. Recollect Energy is still in the process of developing an appropriate go-to-market strategy.

MARKET

The thermoelectric market will continue to grow due to such as scalability, low maintenance, absence of moving parts, solid state conversion technology and most importantly its usage of waste heat to generate electricity. For this reason, a large number of automobile companies are developing thermoelectric waste heat recovery systems to use the heat emitted from the exhaust to charge the car battery. We plan to penetrate the automotive thermoelectric market within the near future. Other thermoelectric applications are currently being researched by Recollect.

MANAGEMENT

Recollect Energy is composed of five students from the Wolff Center for Entrepreneurship at the Bauer College of Business in the University of Houston. The inventor is Zhifeng Ren, the M.D. Anderson Chair Professor in the Department of Physics at the University.

FINANCIAL PLAN

Financial projections for the company are in progress.



RECOLLECT ENERGY

Company Profile:

Industry: Thermoelectric
Employees: 5
Founded: May 2015
NAICS Code: 335999
SIC Code: 3629

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Competitors:

Evident Thermoelectric:
www.evidentthermo.com

Alphabet
Energy: www.alphabetenergy.com

Patents:

US20140377120 A1
US20140377901 A1
US9048004 B2