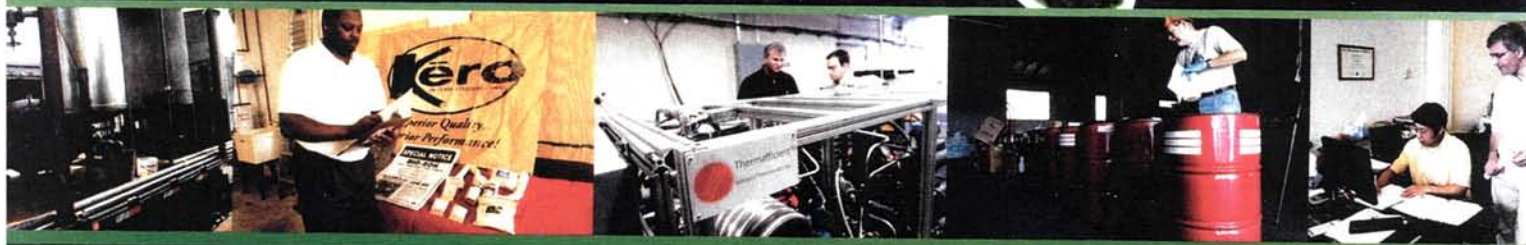


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Disruptive Technology Company Takes the Heat (and Uses It)

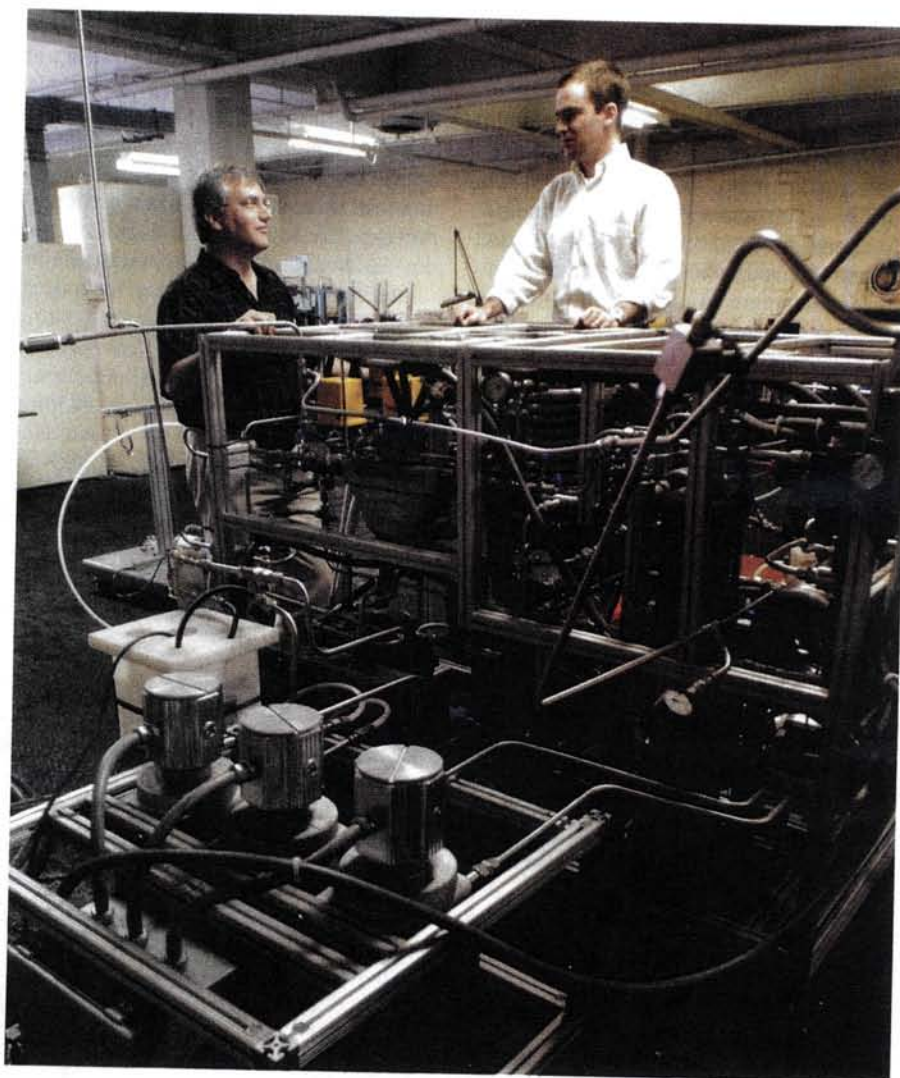
Entrepreneurs Michael Gurin and Phillip Brennan, founders of reXorce Thermionics, are getting ready to bring a disruptive green technology to the marketplace. Their company has developed the Thermafficient thermal engine—a platform that harvests and converts thermal energy.

The company, formed in April 2007, started with Champagne Heat Pump technology licensed from NASA. The men further developed their own designs to work in conjunction with it. The net result is what CEO Michael Gurin calls a “thermally source-agnostic device,” meaning the Thermafficient engine can be tailored to work with any significant heat source, such as waste heat from industrial or commercial processes, solar heat, geothermal heat, or even the heat from a car engine. The heat byproduct from any of these sources can be converted into more useful forms of energy such as electricity or cooling. (More technical information about the process can be found on the company’s Web site, www.rexorce.com.)

According to Gurin, if the technology were applied to a distributed energy generation system, it would yield a 50 percent reduction in carbon dioxide emissions compared with a central power generation system. Such numbers catch the attention of those looking for ways to “go green” in a number of industries. The technology reXorce has developed is scalable, from household appliances to utility power generation facilities.

The company is developing its Thermafficient technology through a series of supply-side strategic joint development agreements with major players, including Parker Hannifin Corp. and BASF Corp. Gurin and Brennan also are discussing demand-side opportunities, including work with a top-three automobile company and a major Asian appliance manufacturer.

Gurin refers to the formation of reXorce as the “convergence of a perfect storm.” Gurin was already running CogniTek, a company he formed in 1988 that works with nanoscale materials



for thermal management and quantum energy conversion applications. His vision was to adapt the Champagne Heat Pump into a power-generating product. Gurin and Brennan created reXorce as a CogniTek spinoff to commercialize the transformed heat pump into the Thermafficient thermal engine.

Gurin’s technical knowledge and track record for successful technology application, combined with Brennan’s business development expertise and resource network, were a winning combination. With their own investment and funding from JumpStart (a venture development organization working with Northeast Ohio’s early-stage companies) and several other private sources,

they had what they needed to accelerate the commercialization process.

Why Akron, Ohio? Gurin says the economic development climate was friendlier in Ohio. He says the Akron Global Business Accelerator, the incubator home of reXorce, has definite advantages, such as the flexibility to obtain more space, a solid support system and the opportunity to cross-pollinate with other technology companies in the facility. Akron’s Small Business Development Center, located just down the hall, also can provide business support as needed.

In mid-2008, Gurin and Brennan were awarded a grant from the Research Commercialization Program of Ohio’s Third Frontier Initiative.