

## **Entrepreneurism Proves Habit Forming for Founders of Firm**

### **Developing New Magnetic Force Control Technology**

Have you ever known anyone convicted of serial entrepreneurship?

Of course not. It's not a crime. But if it were, there are two enterprising guys in the Kansas City area who'd be serving life sentences. You won't find their mugs plastered among the FBI's ten-most-wanted at your local post office, but P.J. Piper and Joe Flynn are prime suspects in the commitment of a basic entrepreneurial philosophy: If you succeed at one business, why not try another?

At their Greenwood, Mo.-based tech firm QM Power Inc., the pair is working to develop and market a new magnetic force technology to revolutionize the way manufacturers and customers design and use electrical motors, generators and actuators. QM's new approach to magnetic technology has implications for improvements in power and industrial tools, electric and hybrid-electric vehicles, wind turbine and hydro power generation, and electric generators used by the military.

Before they joined forces in 2006 both of them ran their own businesses...Piper as a founding partner in a nanotechnology firm producing high-performing insulation, and Flynn plying his expertise as an electrical engineer specializing in magnetic and electromagnetic devices.

Now they are running with QM Power. The new company's breakthrough motors, generators and actuators are based on a novel yet simple magnetic circuit that provides higher power, efficiency and reliability for electromagnetic applications, most often without an increase in cost, according to Flynn, chief technology officer for the company.

The circuit, which Flynn invented, is called parallel path magnetic technology—PPMT. Due to the unique arrangement of magnets, a PPMT motor generates up to four times the force for a given electrical input compared to conventional systems at low-end speeds. At variable speeds the PPMT design yields 27 percent more power.

“Our company not only has great business prospects, but can make the world a better place,” says Piper, company president and CEO. “Without additional upfront cost, the widespread adoption of QM Power's higher efficiency and power density motor and generator technology could result in over \$10 billion of electricity generation savings and the reduction of over 100 million tons of greenhouse gas emissions annually.”

The company is involved in extensive development partnerships in the public and private sectors and is rapidly moving toward the commercialization of several products, according to Denise Fields, UMKC SBTDC business specialist who counsels Piper and Flynn.

Piper credits Fields with helping QM Power obtain government funding critical to the fledgling firm's research and development funding, including two \$5,000 Phase 0

grants from the Missouri Technology Incentive Program (MoTIP), MO SBTDC's pool of technology funding. MoTIP is a special initiative backed by the Missouri Technology Corp.

In addition to assisting with the competitive grant-seeking process, Fields also helped Piper and Flynn identify the best resources within the University of Missouri for both research and development collaboration and potential human resources.

“In the last year, we've doubled our head count with highly qualified research technicians and we expect that growth to continue,” predicts Piper.

The two Phase 0 awards—along with guidance from Fields—gave QM Power the support it needed to prepare complex applications for Small Business Innovation Research (SBIR) grants from federal agencies. Piper reports his company has leveraged those two \$5,000 grants into \$250,000 in government-supplied R&D funding.

“We're now looking to take the next step, which is the MoTIP Phase I/II gap funding...a \$50,000 bridge loan that can then be leveraged into \$2 million worth of government funding,” says Piper. “Knock on wood, we hope to get it.”

###

QM Power Inc.

25409 Timberlake Trail

Greenwood, MO 64034

Phone: 816-537-5338

Fax: 857-350-3101

Web site: [www.qmpower.com](http://www.qmpower.com)

E-mail: [pjpiper@qmpower.com](mailto:pjpiper@qmpower.com)

Photo cutlines:

Photos 2509a and 2505a

QM Power partners Joe Flynn (top photo, foreground) and P.J. Piper work in their Greenwood, Mo., laboratory preparing for a meeting with clients.

2516a

Piper, QM Power's president and CEO, envisions more than \$10 billion in electricity generation savings and a reduction of greater than 100 million tons of greenhouse gas emissions annually with widespread adoption of his firm's power efficiency technology.

2170a

Missouri state Sen. Matt Bartle (left, R-District 8) presents a legislative resolution to Flynn and Piper at the MO SBTDC and MO PTAC Client Showcase in Jefferson City

earlier this year. The resolution honored QM Power for its contributions to the economic development of the state.

**5/11/09/pal**