

MORGAN HILL TIMES

Driving the future of clean cars

Thursday, February 19, 2009

By Jodi Engle (editor@garlic.com)

Morgan Hill

You can almost feel the electricity in the air.

Researchers in Morgan Hill are testing and developing magnetic and electric technologies that could drastically reduce fuel consumption and carbon emissions when they become available on the market later this year. Save the World Air claims its devices can reduce air pollution in combustion engines by as much as 98 percent, improve overall power by 19 percent and enhance fuel efficiency by up to 33 percent.

To accomplish that feat, STWA is relying on its small staff of two in Morgan Hill to assist with testing, research and product development of fuel efficiency increasing products such as the MAG ChargR and ELEKTRA.

The MAG ChargR is a device that when placed on top of the intake of an engine can increase its horsepower, torque and fuel economy.

"MAG ChargR is what we call our legacy technology. It has been developed and anticipated for a long time," CEO Cecil Bond Kyte said. "That is the product we hope to have sold very, very near term. The only impediment to selling that product - and it's not anything unusual - is the California Air Resource Board certification. We're awaiting final approval."

Once the ARB gives its official nod, STWA will begin selling and marketing the MAG ChargR to consumers who can easily adapt it to fit nearly any vehicle.

"I already have it on mine," said Operations Manager Howard Peck, who commutes from his home in San Jose to Morgan Hill in a 2002 GMC Sierra. "We test it on mine. It is definitely more responsive at the lower end. I have definitely seen more horsepower and torque towing."

Eventually, STWA hopes car manufacturers will install the MAG ChargR in their vehicles in the factory. "GM, Ford and Chrysler are hurting right now," Kyte said. "They need to reinvent themselves. They need to have a public image of becoming leaner and greener manufacturers. We would certainly like to offer them new integrated products and ongoing technical development."

The climate for such a product is right for STWA with demand for clean and green



Norman Peck, right, holds an ELEKTRA, which helps with the efficiency of diesel fuel emissions, and Brian Lewis holds a MAG chargR, to help with regular fuel emissions.

Photo by: [Lora Schraff](#)

technologies rising. Government mandates require increasingly stringent pollution controls from motor vehicle manufacturers, and global concerns about accelerating global warming are rising. Since California has some of the world's toughest car emissions rules, Kyte said it made sense to test and develop his technologies here.

"If you can approve your technology and develop it in California, then it will spread nationwide and throughout the rest of the world," he said.

The company also has a partnership with Temple University in Pennsylvania, where Dr. Rongjia Tao, head of Temple's physics department, is developing a technology used in ELEKTRA.

Unlike the MAG ChargR - which relies on a magnetic field to improve fuel efficiency - ELEKTRA consists of an electrically charged tube that draws power from the vehicle's battery. It is attached to a car or truck's fuel line near its fuel injector, and as fuel passes through the tube, it is thinned so that it can be injected into the engine in smaller droplets that burn more thoroughly, improving the vehicle's mileage and thereby decreasing the amount of pollution the vehicle emits.

The staff in Morgan Hill helps build the prototypes for ELEKTRA. The prototypes are then sent to a trucking company in Pennsylvania for testing on diesel-powered trucks.

"The ELEKTRA is really the superstar," Kyte said. "That is something that we plan to roll out this year for sure."

In addition, STWA is working with oil companies, which could use the technology devised by Tao in two ways. One is to improve the flow of oil and oil products through pipelines, dramatically reducing the amount of money the companies have to spend cleaning the pipelines. Another way is to improve the flow of oil from oil wells, which would enable oil companies to get more oil out of their wells.

"Several oil companies have contacted us," Kyte said. "We have a nondisclosure agreement with one in particular and are moving forward with product development."

Headquartered in Santa Barbara, STWA was founded in 1998, is a publicly traded company and has roughly 24 full-time employees. STWA's Morgan Hill office is at 235 Tennant Ave.

"I love this place. The company has had its ups and downs, but they're doing all the right things," said Peck, referencing the recent leadership changes, with Kyte, who had been chairman of the board, taking over as CEO Jan. 30. "It has been a tough struggle. Only two of us are here, so we have got to wear 10 hats each."

But STWA plans to expand its operations in Morgan Hill this year.

"If we start hitting the marks or guidelines that we set forward for expansion in (fiscal year) 2010," Kyte said, "We could see at least a dozen to two dozen people."