

Electric motor technology drives plans for Vietnam assembly plant

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SE Asian country a hot spot for electric scooters

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An Austin company is developing an electric motor for scooters in Vietnam, where the government is promoting such transportation in an effort to curb the crippling air pollution caused by popular gasoline-powered scooters.

KLD Motors America Inc. plans to open an assembly plant in Hanoi by the fourth quarter to supply Vietnam Sufat Co. Ltd. with at least 2,000 motors per month.

Last week, the company's parent company, KLD Energy Technologies Inc., closed on a \$1 million round of Series A financing from a syndicate of angel investors.

Austin-based KLD Energy, founded in 2007, plans to use the capital to ramp up development of its transmissionless motor system that would be assembled in Vietnam for Sufat scooters, KLD CEO Christian Okonsky said. Later this year KLD is expected to raise an undisclosed amount of series B venture capital to fund the plant, Okonsky said.

Sufat is scheduled to begin producing the new scooters during the fourth quarter, and within three years Okonsky expects the KLD plant to employ about 150 workers who will produce 100,000 systems per month. Vietnam is a hot spot to introduce electric scooters because the country, with 85 million people, has about 22 million motorcycles and scooters, according to published reports.

Unlike conventional scooters that use transmissions, KLD Motors' system operates without a transmission, using a nanocrystalline composite material designed to enable the motor to operate on the hub of the wheel at high speed without generating the heat of conventional motors, Okonsky said.

Rising gasoline prices and environmental concerns are fueling a transformation in the scooter market, said Frank Jamerson, publisher of the biannual Electric Bikes Worldwide Report. He expects India to be the largest market for electric scooters during the next two years.

Okonsky said he learned of the motor technology in 2006. He licensed it the following year to develop a prototype and chose scooters because “it was the best way for me to showcase the application.”

Sufat was founded in 1996 with today’s equivalent of nearly \$4.3 million by the Vietnam government, according to Sufat’s Web site.

In 2007, Italy’s Piaggio invested \$30 million in a plant in northern Vietnam to produce up to 50,000 scooters a year. The plant was expected to be operational by this year, Reuters reported.

Okonsky said Honda is the scooter market’s dominant manufacturer, but expects the Vietnamese government to outlaw gas-powered scooters within three years, providing an opportunity for companies with electric scooters like Sufat to quickly gain market share.

Major cities in China have already banned gasoline-powered bikes, and it’s likely the Vietnamese government will follow suit, said Ed Benjamin, founder of the Maine-based Light Electric Vehicle Association and a consultant for several scooter companies.

“The demand for such a high-efficiency hub motor that has no waste heat is huge — running to tens of millions of pieces as soon as possible,” he wrote in an email message from China, “eventually hundreds of millions of pieces.”