

Langson unveils system to put wasted pressure to use

BY JOHN SEELMEYER

The curtain rises in Amsterdam next week on the second act of Richard Langson's career as a creator of technology to generate electricity from energy that otherwise goes to waste.

Langson Energy Inc. will unveil technology that captures the pressure that's released from natural gas pipelines as gas is prepared for delivery to individual customers. The company's technology then uses the pressure to drive a generator.

With any luck, Langson expects to bring one significant contract home with him to Carson City from Gastech 2011, an international meeting of executives from the natural gas industry.

He's accustomed to winning.

As a race-car driver and builder, Langson beat out the legendary Don "Big Daddy" Garlits for the International Hot Rod Association world championship in 1993.

The superchargers used in dragsters spurred the thinking that led Langson to create technology that uses waste energy from industrial applications to drive generators that produce electricity.

He sold his interest in ElectraTherm Inc., the company built around the heat-recovery technology, to an investor group a year ago.

The sale completed, Langson got to work on his next big idea in a nondescript shop building up a rut-filled, muddy lane at the north edge of Carson City.

His thought: Natural gas pipelines compress gas to 1,000 pounds per square inch to deliver it across the country. But pressures are reduced dramatically — sometimes as low as 2 pounds per square inch — when gas is delivered to homes.

Utilities traditionally have simply reduced the pressure through valves.

Langson Energy Inc., however, replaces the valve at the gas letdown station with a device that captures the pressure and uses it to drive a twin-screw generator to produce electricity.

The market? About 3 million letdown stations are located around the United States, Langson says, and European locations may be an even more attractive market.

A one-megawatt Langson Energy system with an installed cost of \$1.6 million would pay for itself in less than two years if power is



Richard Langson, who once built and drove dragsters for a living, today develops systems to capture otherwise wasted energy and put it to use generating electricity. His newest system is pictured above.



priced at 10 cents a kilowatt hour. And the payback doesn't include any incentives. (Nevada doesn't include power produced from recovered pressure in its definition of renewable energy; about half the states allow its use for conservation incentives.)

Because gas letdown facilities typically are located in urban areas, connections to the electric grid will be easy, Langson says.

Much as he hopes to come back from Amsterdam with a contract in his pocket, Langson also is looking for utilities willing to give the letdown generation system a test. The company just manufactured a trailer-mounted unit, and Langson says he's talking with several major utilities and Fortune 500 companies about taking it out for a test spin.

Financing the new company himself, Langson wants to create new jobs for Carson City, where his family has been at home for 60 years.

Within a couple of years, he expects Langson Energy will build a 25,000-square-foot headquarters and research facility, and he expects the company could employ as many as 130 once it gears up assembly operations.

The company currently employs five, with a cadre of 16 consulting engineers across the country offering their advice.

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