

Local Firm Lands Ontario Contract

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Byline: Baird, Moira

Ten years ago, as a student, Maurice Tuff once borrowed a laser from Mobile high school to try to figure out the cost of lighting the family home. Tuff's father, who had a family of six children, was always looking for ways to reduce the hefty electricity bills. Although the teenager's efforts to read the electrical meter didn't produce results at the time, the idea stayed with him.

Last September, Tuff started his own company to produce the PowerCost Monitor - a wireless device that tells homeowners at a glance exactly how much electricity their home is using, and pegs the cost to the penny. Last week, St. John's-based Blue Line Innovations Inc. landed a contract with a London, Ont., utility to demonstrate its wireless device in 70 homes as part of a one-year demonstration project. The dollar value of the contract has not been released.

"What's so novel about our device is virtually anyone can hook it up themselves," said Tuff, Blue Line founder and vice-president of development. "It's a consumer electronics device now."

Earlier this summer, the company landed a \$350,000 contract with Hydro One, Ontario's largest utility, to place the device in 500 randomly selected homes. That demonstration project also runs for a year. In some provinces, like Ontario, a conservation formula is built into electricity rates and pays utilities for energy saved. For Blue Line, there was a silver lining in the misfortunes of others.

"The blackout in Ontario helped us," Tuff explained.

The PowerCost Monitor consists of two small devices. One device attaches to meters on the outside of homes, using infrared technology to read the kilowatt hours of electricity being used.

"We weren't going to do it with a laser," said Tuff. "It took too much power out of the battery, so we do it with infrared detection. We wanted it wireless so you don't have to run a cable into your home."

The other piece of the PowerCost Monitor resembles a programmable thermostat and goes inside the home. It receives signals from the meter device and displays information about electrical consumption and cost in terms the consumer can understand.

Savings Possible

Armed with that information, Tuff says, studies at universities such as Oxford and Princeton show consumers can reduce their energy consumption.

"They've been doing this since the '70s with real-time feedback, which is what we're doing ... and they show between 10 and 20 per cent savings."

The device also allows people to test what works to reduce electricity consumption.

"You'll see right away if it saves you energy or not."

One popular conservation tip from utilities, for instance, is to move furniture away from baseboard heaters.

"You might do that for a day and it ends up getting pushed in again because you have to wait over a month to see the result of that," said Tuff. "People don't want to carry out experiments that

take over a month."

Blue Line has 10 employees in St. John's, including six engineers who graduated from Memorial University. Tuff also completed his engineering degree at Memorial, then landed a job as a software developer with Nortel Networks in Ontario.

Help From MUN

A few years later, he quit that job and moved back to Newfoundland to start work on a master's in engineering. At the same time, he created Blue Line and found plenty of help and office space within Memorial's engineering faculty.

"The engineering faculty has been a phenomenal help, and Ray Gosine was so supportive," said Tuff. "They provided the technical support from all the professors, the testing facilities ... all of that was given for free to us."

Gosine is dean of Memorial's faculty of engineering and applied science.

By May, Blue Line had outgrown its incubator space at Memorial and moved into its own offices. Tuff also recruited family members. His father, Maurice, is president of the company and, as an experienced financial controller, keeps an eye on the bottom line. Brother Danny is in charge of marketing.

"Danny came on to handle some of the business side while I finished off the product," said Tuff. "We made a sale, we had to build them. The first 500 were built here in Newfoundland."

Consolidated Technologies in St. John's produced that batch of electronics, a Montreal company made the plastic boxes and Blue Line assembled them. The company is looking for a manufacturer for large-scale production and capital to grow the business.

"We're in the ramp-up stage, looking for potential investment," said Tuff. "You need money to make money, and that's what we're doing."

Meanwhile, St. John's-based NewTech Instruments is making the electrical components for another 1,500 units.

Blue Line also has new products in the works - a version of the display unit for computers and a load control device that can turn off power to appliances during peak hours when electricity rates in provinces such as Ontario are more expensive.

The company received a \$366,900 loan from the Atlantic Canada Opportunities Agency (ACOA) to research, develop and test the PowerCost Monitor for use in homes and to market the device. Blue Line received an additional \$88,500 from ACOA to hire two senior technical managers.

mbaird@thetelegram.com