

Hopkinton company shows off fuel cell technology



Charles Myers, left, president of Trenergi Corp., stands next to a fuel cell prototype as he discusses his company's new technology with, from left, state Sen. Karen Spilka, D-Ashland; Greg Bialecki, state secretary of Housing and Economic Development; and state Rep. Carolyn Dykema yesterday afternoon.



Mohammad Enayetullah, right, chief technology officer of Trenergi Corp., explains the fuel cell operating system to from left, state Sen. Karen Spilka, D-Ashland; Greg Bialecki, state secretary of Housing and Economic Development; state Rep. Carolyn Dykema; and company president Charles Myers yesterday afternoon.

**By Michael Morton/Daily News staff
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HOPKINTON — When it comes to his company's fuel cell and its potential effect on energy use, Charles Myers of Medway likens it to the cell phone's revolution of telecommunications.

Discard your home furnace, water heater and electrical supplier, he says. Install a file-cabinet-sized fuel cell unit from Trenergi of Hopkinton to turn natural gas into electricity. Get sufficient heat as a free byproduct.

"That's the game-changer," he told visitors, a group that included Secretary of Housing and Economic Development Gregory Bialecki, state Sen. Karen Spilka, D-Ashland, and state Rep. Carolyn Dykema, D-Holliston, yesterday.

Having worked out of a South Street office for much of its year-and-a-half history, Trenergi is aiming to bring a finished product to market and is negotiating with potential large-scale buyers such as Natick Soldier Systems Center and defense contractors.

But it is also focusing on household use, which sets it apart from other MetroWest fuel cell firms: Protonex in Southborough, CellTech Power in Westborough, Aspen Systems in Marlborough and Hy9 in Hopkinton. And it is one of the few firms nationally to generate heat from its design.

It works like this: The unit takes hydrogen from natural gas and purifies it, then runs it through several membranes and channel-filled carbon graphite plates to pry loose electrons for electricity. An apartment-sized cell is the size of a car battery.

Heat is produced by generating the electricity and purifying the hydrogen, and leftover elements drive the purifier. Emissions are equivalent to a standard water heater.

During the visit, a prototype sat on a 4-by-8 table inside a frame with the curtains drawn back, much like a princess bed. It felt like a rough-hewn science experiment, with a series of tubes, wires, valves, gauges and small tanks. The visitors flipped switches, blasting the room with light from overhead bulbs.

"This is all coming directly from the fuel cell," said Myers, the company president, later explaining that a home unit could help promote awareness and acceptance of the technology for other uses.

The fuel cell can also run on propane, meaning it could light villages in developing countries and produce heat from deliveries of barbecue tanks.

Myers said he doesn't expect to see the company's fuel cells in homes for several years, but they will cost just \$1,200 more than standard equipment once federal tax credits are factored in. He also said that the energy savings payback could take just two years, with the potential to sell unneeded electricity back to suppliers.

With the state looking to renovate much of its public housing stock, Bialecki said he sees opportunities to incorporate technologies like Trenergi's.

"For the adoption of stuff like this, we have the advantage, ironically, that our existing stock is so far behind," he said.

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