

Out of the Fryer & Into the Vegawatt: Used Cooking Oil Helps Power Restaurant

By Leslie Guevarra
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A Massachusetts firm says its new device called the Vegawatt can help restaurants save money by converting used vegetable oil from fryers into fuel to produce electricity and hot water.

The Owl Power Company of Boylston, Mass., hopes its Vegawatt (pronounced with a soft "g," like the word vegetable) will become the next big thing among restaurants and other businesses with commercial or industrial kitchens that use fryers.

President and CEO James Peret, the founder of Owl Power Company, engineered and developed the Vegawatt after batting around the idea of using waste oil at its source and devising a way to make that possible, according to Ben Prentice, the firm's vice president of sales.

"He figured out a way to create a direct benefit for restaurants," said Prentice, a veteran of the hospitality industry who had operated the first green fast food restaurant in the country. "Restaurants operate on a very low margin and the Vegawatt presents an exciting opportunity to save huge money."

The Vegawatt waste oil cogeneration system is six feet high, six feet wide and about two feet deep.

It's designed to be installed outside a building and hooks up to the building's electric system through an electrical cable. The Vegawatt also has a hot water feed and return system.

Details on the workings of the Vegawatt can be found [here](#).

Instead of having used fryer oil hauled away, it's placed in the Vegawatt, which cleans it through an automated four-step process, then converts the waste oil into fuel that's used to produce electricity and hot water.

The system provides about 10 to 25 percent of the power used by a restaurant, creating a savings in energy costs while recycling waste oil in a process that is nontoxic and nonflammable and produces no liquid byproducts, the company says.



The Vegawatt.



The workings of the Vegawatt.

The first Vegawatt is in operation at Finz Seafood & Grill in Dedham, Mass., where owner George Carey says utility costs make up the greatest line-item expense for his business. Carey told GreenBiz he happened to hear of the Vegawatt last spring at a green restaurant conference, where he sat a table with a principal from the Owl Power Company.

"It's working great," said an enthusiastic Carey, who had the Vegawatt installed in early December.

Previously, Finz had its waste oil hauled away to be recycled into biofuel.

"This is a better, more green option — the oil never leaves the building," Carey said. "We're very pleased with the impact, or lack of impact (on the environment)."

The restaurant in Dedham and its sister location in Salem emphasize locally grown produce and locally caught seafood, and are always looking for ways to reduce waste, recycle and use energy more efficiently, according to Carey. And while much of its menu is grilled seafood, chips or fries are popular items, he said.

"So this was just a layup for us," Carey said of putting the Vegawatt to work at the Dedham restaurant, which opened in 2007 and is the newer of the two. "It's not hard for a restaurant operator to use whatsoever."




Finz Seafood & Grill restaurant in Dedham, Mass., uses the first Vegawatt

According to Prentice, the basic Vegawatt, a 5 kilowatt unit, costs \$22,000, is eligible for a 10 percent tax credit and has an estimated return on investment of two to three years for a business processing 50 to 80 gallons of waste cooking oil a week. For example, if a restaurant used the system to process at least 50 gallons of oil a week the payback period would be about three years; at 80 gallons per week the projected payback would be in two years.

The firm is developing 12 to 15 kilowatt units capable of processing 140 to 180 gallons a week, Prentice said.

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