

The Vegawatt System

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Restaurant owners often grapple with what to do with waste oil generated from deep fat fryers. Each year more than 11 billion litres (2.9 billion U.S. gallons) of waste vegetable oil is produced by restaurants, food processing plants and fast food restaurants in the USA.

Although there are regulations for proper disposal of the waste oil, most disposal options involve removal and transport of the oil to another location. *Vegawatt* has come up with a unique system to turn vegetable waste oil into energy at the restaurant. We caught up with Ben Prentice from *Vegawatt* to ask a few questions about their new waste oil recycling and energy creating compact system.

Tell us a bit about the *Vegawatt* system.

Vegawatt is a unique renewable-source energy system that generates electricity and hot water, on-site, for restaurants and foodservice operations by using the waste vegetable cooking oil (WVO) from their fryers as a fuel source. *Vegawatt* is a 5kW unit that will provide a return of investment (ROI) of only 3 years for operations that dispose of 50 gallons per week of WVO and 2 years for operators disposing of 80 gallons each week.

Our generator is fully automated; its performance is monitored remotely, and requires only that the foodservice employee pour the waste oil into the tank. All other operations are handled without any further local operator intervention.

How does it transform the old vegetable oil into electricity and heat?

Through a proprietary process of oil cleansing, preparation and filtration the Vegawatt readies used cooking oil to be burned as a fuel in a diesel generator.

Typically restaurants and foodservice operations are either paying for a grease rendering company to take this product away for use in cosmetics, soaps or in animal feed.

—Ben Prentice

How big is the system and where do you put it?

The *Vegawatt* requires a footprint of only 12 square feet. It is 6 feet long, 2 feet deep and about 6 feet high. Typically it will be located at the back door or loading dock/delivery area of a restaurant or foodservice facility. It is quiet enough in its operation that you can stand next to it and have a cell phone conversation while the *Vegawatt* is running.

What are the cost savings from having a *Vegawatt* system installed?

The cost savings will vary as a function of the amount of waste vegetable oil available from the food operation, as this will determine how many hours per day the *Vegawatt* can operate. The cost savings are also a function of the cost for electricity and natural gas in the city where the *Vegawatt* is installed. Naturally, the higher the

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energy costs, and the more hours it runs on WVO and the faster the ROI.

What are other eco-elements to the *Vegawatt* system?

Not only is the owner/operator achieving terrific financial gains, they are eliminating the hazards and hassle of storing dirty waste oil behind or within their restaurant; they are producing carbon-neutral electricity which is far better for the environment than the electric power that they are currently buying, and they are now able to market themselves as a greener restaurant to better promote their image and brand to their guests.

What is involved in installing the *Vegawatt* system?

The installation requires only a simple hook-up by a licensed electrician and plumber.

How much does a *Vegawatt* system cost?

The *Vegawatt* costs \$22,000, and there is a *Federal ITC* (investment tax credit) of 10% lowering the cost to \$19,800. In most parts of the United States the *Vegawatt* will deliver a complete ROI in 2 to 4 years. From that point on thousands of dollars per year will fall to the owner's bottom line.

Have you sold many of the *Vegawatt* systems?

The first *Vegawatt* was installed in Boston at *Finz Restaurant* last fall. We are readying to roll out production and to begin selling this spring. The initial response has been overwhelming from large restaurant and foodservice operations as well as from small independent restaurants.

Where does used vegetable oil end up if it is not recycled?

Typically restaurants and foodservice operations are either paying for a grease rendering company to take this product away for use in cosmetics, soaps or in animal feed. Sometimes it ends up on landfills. Other companies may use it to make bio-diesel.

Visit: <http://www.vegawatt.com/>

