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GREEN SOLUTIONS

From fryer to fuel in 24 hours

Marathon company making a business out of biodiesel

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Marathon Bio-Diesel owner Jeff Lillie says that if all goes as planned, his first finished batches of fry oil-turned-fuel should be pumping by the end of this week. (That's assuming the federal government didn't shut down, delaying a final OK on his pump.)

Lillie is running a couple of weeks behind where he wanted to be, because he has to wait for a new pump — one to replace his other new pump, which the feds told him was already outdated. Without the pump

and the approval, he can't legally dispense the 1,200 gallons of fuel that are otherwise ready for a list of eager buyers.

It was a bit of a setback, but he wasn't about to give up on the project he spent the last seven years — and lots of his own money — working on. Meanwhile, Lillie's been hitting the road trying to recruit restaurants that will let him pick up their used cooking oil instead of shipping it to the mainland.

The cleaner-burning biodiesel isn't a new idea in the Florida Keys. The Florida Keys Electric Cooperative



Jeff Lillie with the truck he converted to pick up used cooking oil. The truck will sport the logos of the restaurants that supply him with oil.

and Keys Energy use a mix in their respective truck fleets, and Key West High School's Alternative Energy Center has been making its own biodiesel for several years, running a Mercedes

off the stuff.

But Lillie has a vision of taking a local waste product — fry oil — and turning it into an affordable fuel on a

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larger scale. The fuel works in any newer diesel engine, says Lillie, who's been running his car and truck on it for months.

He says the potential becomes obvious when passing tourists stop to talk. "Tourists are getting the biggest kick out of it," he says. They're entranced by two things — it's a local product, of sorts, and it produces a fraction of the emissions of traditional fuel.

Lillie says he has three regular sources so far — The Island Fish Co., Keys Fisheries and Laurie's Deli. He also collected the oil from January's Florida Keys Seafood Festival in, February's Sugarloaf Volunteer Fire Department fish fry and last month's Original Marathon Seafood Festival.

"As we live in one of the most environmentally sensitive and unique places in the world, it is of the utmost importance that we do our part in promoting and advocating for renewable energy resources," wrote Daniel Samess, chief executive officer of the Greater Marathon Chamber of Commerce, in announcing that the fledgling com-

pany would be recycling the Marathon festival's oil.

As restaurants sign on, Lillie will add their details to his website and slap their logo on his truck. He also has "Thank you for recycling" decals that restaurants can add to their entryway doors or windows to tout the partnership. Lillie will give 55-gallon drums to participating restaurants for oil collection and empty them when they're full.

Lillie estimates that if he could get 80 percent of the island chain's restaurants on board, he could produce 3,000 to 4,000 gallons of biodiesel a week.

"We're not throwing anything away," Lillie says. Byproducts from the process are glycerin, "a little bit of steam" and sawdust, Lillie says. The glycerin can be used to make soap, and the sawdust can be pressed into logs that make great fire-starters.

Lillie says he spent about three years building the multi-step system he's using to convert old fry oil into fuel and about six months perfecting the process. "Quality control was what we were after," he said.

It took about a hundred test batches to get the mix-

ture that Marathon Bio-Diesel is producing now, which Lillie says is above the government standard. Each batch, which takes about 24 hours to process, is tested to make sure it's meeting that standard, which Lillie says is fit for any vehicle with a diesel engine.

Through the testing process, Lillie found that Diesel's oil of choice, peanut, is the worst to process; canola is the best.

Marathon Bio-Diesel's headquarters is on a fenced lot on Coco Plum Drive. There are storage tanks for unprocessed oil on one side, and the finished product on the other. Processing happens under cover, in a smallish wooden building with an array of tanks and tubes and wires running hither and yon. It's a compact, organized operation, with a premium on safety.

"We can't be safe enough," says Lillie, always aware of his environmentally sensitive surroundings. That's why he opted for a dry wash system, which uses sawdust to remove particulate matter from the biodiesel and can later be recycled into those fire logs for use outside.

It'll be a while before Lillie will have a large enough flow to be able to

Marathon Bio-Diesel

Marathon Bio-Diesel is at 2 Coco Plum Drive, right off the Overseas Highway.

Lillie said people are welcome to drop off their used cooking oil, because every drop counts. There's a small collection area to the left of the gate with a green drum inside, or they can just leave their containers on top of the pallet.

Visit www.marathonbiodiesel.com. Owner Jeff Lillie can be reached at 522-7655, or jeff@marathonbiodiesel.com.

sell to the general public, so while he welcomes donations of used oil, he asks potential customers "to bear with me."

Lillie sees diesel-burning trucks and boats as his best future consumers, since they're getting hammered by prices at the pump.

A huge added benefit with having the alternative fuel out on the water is its biodegradable nature.

Lillie's confident that more Keys restaurants will get involved as word spreads. He sees it as a move, because they point to their participation as a way of making a difference for the Keys environment.

"They're changing the world — one drop at a time," he says.