

## 21st century trash disposal

By Rich Eldred

Thursday, February 22, 2007 - Updated: 03:35 PM EST

BigBellies are in at Cape Cod Community College.

We don't want to imply the faculty and staff are overindulging in triple-decker monster cheeseburgers, we're talking high-tech solar-powered trash disposal units. The day of the painted 55-gallon drum may be in its sunset.

The college has one BigBelly solar trash disposal unit parked outside the Lorusso Applied Technology Building, which is a demo on loan from the Lower Cape Sustainability Center, but it plans to purchase three.



Bill Eddy, director of sales for New England for Seahorse Power Co., shows off the first solar powered trash compactor on Cape Cod at Cape Cod Community College. The BigBelly solar compactor has a 40-watt solar panel, which powers the compactor.  
(Rich Eldred)

The BigBelly, which looks more or less like a standard trash can, has a 40-watt solar panel on top which powers a 12-watt battery that operates a trash compactor. With a compaction ratio of 4-to-1 (by volume) the BigBelly has to be emptied only once for every four times a standard trashcan gets dumped.

"The compaction takes 40 seconds to run one cycle," explained Bill Eddy, director of sales for Seahorse Power Company. "It's the world's first solar-powered trash compactor."

Seahorse Power is in Needham and this is its only product. Eddy was at the college Tuesday morning to demonstrate the compactor for local media, dignitaries and members of the college's Sustainability Club. It was cold and he didn't take long.

The compactor weighs 540 pounds and is 51 inches high. Each unit cost \$3,995 with discounts for those who buy more than one.

"It uses 1,250 pounds of compaction force and it's 20 seconds down and 20 seconds back," Eddy told the onlookers. "It's all lockable with key access. That eliminates the overflow conditions that cause litter. It also keeps the raccoons out. It can be put anywhere, it just needs a good shot of the sky."

The battery has a long life.

"Once the battery is charged, it can run three to four weeks without direct sunlight," Eddy said. "When it's doing the compaction, you can still put trash in."

At \$3,995 it makes a pretty pricey trash can but Eddy argues it pays for itself within two years. Let's say you have 25 BigBellies. If you estimate \$75 per hour as the labor, vehicle, fuel cost of driving around picking up the trash, and that is slashed by three-quarters, you'll save 650 hours a year or \$48,750, which would cover the undiscounted cost of the solar powered compactors (\$99,875) in two years.

Of course, it could cost less than \$75 per hour but you'll still be saving hundreds of man hours in beach, park and street cleanup costs. At least, that's what Seahorse Power Co. hopes.

"We've been shipping this product since 2004," Eddy said. "They're perfect for beach applications. Any places there are hot spots with a lot of foot traffic. Any place you're emptying three to four times a day and you want to keep up with."

We've all seen those chockfull trash cans at the beach, with hot dog wrappers and Styrofoam coffee cups blowing across the sand, and skunks prowling by at night, so Eddy's message was likely to hit home on the Cape.

Eddy even touted the BigBelly as a way to fight global warming. The trash truck will make 75 percent fewer runs, limiting carbon dioxide emissions, he said.

"Harley Davidson chains run this thing," noted John Lebica, the college director of facilities management. "It only takes five minutes of maintenance on it all year. You lubricate it once."

"This will save us a lot of staff time although our volume is nothing like that of a city street," added college president Kathleen Schatzberg.

The BigBelly is the first on Cape Cod but the solar-powered bins compact trash in Boston, Cambridge, York Beach, Maine and the White Mountains.

"There are over 350 units in operation," Eddy said. "We've been in business since 2003. The first compactor was shipped to Vail, Colo. We've had a lot of discussions with some Cape Cod communities. They're all very interested in solar power."

While 55-gallon oil drums are cheap (\$25), the more ornate antiqued city trash cans run more than \$1,000.

The BigBelly is also smart.

"It automatically compacts as the trash builds up inside," Eddy pointed out. "It has an electric eye above the bin and when it goes over the line, that's what happens."

You might think all this compacted trash would give the poor pickup man a hernia, but an average bag weighs just 40 to 50 pounds. The bin volume is 47 gallons.

Eddy reports that people have tossed rocks and broken cinder blocks into the machine but it senses that those aren't compactable and won't try to crush them.

"It's very durable," he promised. "It has to put up with being outside all year-round. It's made of 15-gauge steel. They hold up."

Boston has 50 bins and Mayor Thomas Menino has given a testimonial to their efficacy. Now Cape Cod Community College is in the vanguard of 21st century trash collection.

<http://www.townonline.com/brewster/homepage/8998915767021862911>