

School's biodiesel program expands Board funds project that will make fuel for buses

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Local schools will increase their commitment to the environment with a biodiesel production plant in Key West, operated by students and supported by the community.

The Monroe County School Board funded the project at its May 27 meeting, finding the money in its discretionary fund in this budget-restricted year.

Plans call for a business, overseen by teachers, in which students develop relationships with local businesses, collect their waste cooking oil and convert that oil into fuel and soap. That fuel will go back into the district's school buses, potentially saving the district money. The soap, a smaller byproduct, will also be sold. The class will focus on physics, chemistry, entrepreneurship, writing (of press releases and grants), fund-raising and new media.

Project manager and Key West High School teacher Josh Clearman said the project isn't about making money, but educating students. Because of that, the thought of breaking even — paying for teachers' salaries, supplies and building use — is not one of the project's goals, he said.

That said, preliminary projections called for making back three quarters of the class's expenses by the 2010-11 school year. The accuracy of those figures is tentative, as the board only partially funded Clearman's budget. He asked for \$80,000 and received \$50,000.

Clearman, who works in tandem with chemistry teacher Scott Douthit, said he will seek more funds from the community.

Without the now-approved additional facilities, students were able to produce 250 gallons of biodiesel this year to power an old diesel Mercedes. The current funding level will mean producing 1,000 gallons next year.

Biodiesel is a nontoxic renewable fuel made from vegetable oil, according to the National Biodiesel Board.

The school district uses 100,000 gallons of diesel each year. At \$2 per gallon to make, the biodiesel could help reduce the school's enormous fuel bills, especially as diesel prices continue to climb toward \$5 per gallon.

"Students, after one year, will develop sophisticated chemical engineer techniques, exposure to high-powered physics and an entrepreneurial edge," Clearman said in a presentation prepared for the meeting.

The physics teacher's class could run into some speed bumps. The waste necessary to create biodiesel is used vegetable cooking oil from restaurants.

"People used to have to pay \$100 to pay someone to get rid of that," Clearman said after the meeting. "Now, if they're getting \$15 — what waste companies pay to pick up their grease — we have to make sure we offer savings."

Board members nodded in approval to using tax breaks to pay grease producers during Tuesday's presentation, meaning students could potentially offer greater savings to restaurants that turn over their waste.

Clearman said selling waste to students has added benefits for businesses: goodwill.

"That's one of the ways we can sell Key West: This is a green island; we clean up after ourselves," he said. "If you go to similar climates, they're not treating the environment as well, and we can make that a powerful advertising tool."

The planned facility could include a water cistern and solar panels — projects Clearman hopes can be funded by grants. Because of state incentives for solar use, the school needs only a lender or benefactor to finance \$10,000 to install \$30,000 worth of panels. The savings on the building's electric bill would amount to more than a teacher's salary.

The cistern could water Key West High's sports fields, which consume 4000 gallons of water each day. Worse, the school might pay for that water twice, as sewer bills are based on consumption, even though that water is not returned through the sewers, Clearman said.

"It's all adding up — we're at a point now where by taking a couple of smart steps we can save lots of money," he said.

School Board member Debra Walker said she supports students' efforts to help the environment.

"Right now in terms of environmental programs, the teachers and kids are driving it," she said. "At the least, this is an opportunity to give kids a great educational opportunity."

One of Walker's main drives this spring — getting a hybrid bus for the district — might be made possible with the help of Clearman. He and the school's administration are seeking a grant from the Environmental Protection Agency to cover the \$100,000 extra cost of the partially electric bus.

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