

Lowcountry entrepreneurs igniting biofuels industry

BY ANDY OWENS
Managing Editor

Two area companies aren't waiting for another state or country to fill the gap between oil, the environment and the price of driving a car.

OM Biofuels in North Charleston and Carolina-Pacific LLC in Charleston have different approaches to alternative fuels — one sells biodiesel and the other brokers contracts with European utility companies as it develops a market for cellulosic ethanol. But both are dedicated to the development of a biofuel industry in South Carolina.

OM Biofuels CEO Bob Adams said most of his customers who fill up on biodiesel are blue-collar workers intrigued by the technology or environmentalists who want to do their part while driving down the road.

"Some people are really, really concerned about the greenhouse gases and the particulates that come out of diesel fuel," Adams said.

Being environmentally responsible comes at a price. A gallon of biodiesel at OM Biofuels, which Adams said will work in any diesel-powered vehicle, sells for \$3.70 a gallon, a figure that fluctuates as the cost of feedstock rises and falls. Right now, the company mainly uses soybean oil for fuel because it has a low gel point.

Even at that price, OM Biofuels sells



Charles Fox, owner of Fox Music House and a partner in OM Biofuels, replaces the nozzle on the biodiesel pump at OM Biofuels' location on Montague Avenue in North Charleston after filling up his car. OM Biofuels is the only seller of biofuel in the tri-county area. (Photo/Molly Parker)

an average of 150 gallons a day and sells even more when the price drops. But Adams and his partners Chris John, Ian Sanchez and Fox Music Co. owner Charles Fox, aren't making any money just yet, and with the recent purchase of a \$25,000 pump that will accept credit cards, they're not breaking even.

"I couldn't find anyone who had any alternative fuel around here," Adams said. "I don't care if I ever see a single solitary cent out of it. I'm going to keep on doing it and keep on doing it and keep on doing it."

But as support grows for alternative fuels and the industry begins to see an

increase in supply and demand, Adams' company might not be the only biofuel retailer in the Lowcountry for long.

The federal government and South Carolina have gotten behind alternative fuels research, and other states from Nebraska to Florida are pouring hundreds of millions of dollars into biofuels research and development.

Clemson University's Restoration Institute on the former Charleston Naval Base in North Charleston is designing a biofuels pilot plant to explore alternative ways of creating energy from biomass.

The institute's director of renewable energy, Nick Rigas, said the plant is still at the funding and design stage, but the institute won approval for a \$10.3 million infrastructure bond from the state Budget and Control Board last year.

"This project will provide our state with unique facilities to scale up new biofuel technology being developed by the research institutions," said Rigas in a statement in 2007. "Biofuels produced here will utilize locally available feedstocks that do not compete with food supplies. Without such a facility, commercialization of this new technology is very difficult."

State of fuel

The CEO of Carolina-Pacific LLC, John B. Kern, hopes that South Carolina can capitalize on the emerging biomass market to fuel the state's rural economy

still trying to recover from the loss of tobacco money.

The company just won a \$200,000 grant from the S.C. Energy Office to help it develop a hockey puck-sized product made from cellulosic materials such as switchgrass and wood. Kern, who also operates a law practice on East Bay Street specializing in international law, said the money will be used to create a demonstration process to help attract investors.

But when Kern talks about switchgrass, he doesn't talk about saving the environment. He talks about saving South Carolina farms.

"We started looking at this prospect of what could be done in the grand scheme to attract investment to develop this as an energy crop," Kern said. "It's a tremendous opportunity for the (Interstate 95) corridor. Switchgrass should be the replacement for tobacco."

Carolina-Pacific is signing farmers to 10-year contracts and hopes to soon have 100,000 acres of land in South Carolina dedicated to future switchgrass plantings.

"If they will grow it, we will buy it. The economic impact would be tremendous for the region from an agricultural perspective," Kern said.

Already the company brokers contracts between wood chip and wood pellet suppliers with electric plants in Western Europe. Even with the added expense of transporting break-bulk containerships full of burnable biomass, the overseas pressure to comply with environmental laws keeps demand high for the coal alternative.

The highly combustible briquette Carolina-Pacific is developing could be used as another replacement for coal or to supply feedstock for cellulosic ethanol plants.

But South Carolina doesn't have any ethanol plants.

Other than the research facility at Clemson's Restoration Institute, there are no firm plans to build any commercial operations in the near future, according to the Department of Health and Environmental Control, which handles permitting for such facilities.

Mostly that's because South Carolina doesn't grow a lot of corn and nearly all of the country's 139 biorefineries use corn to create ethanol.

In 2006, South Carolina planted 310,000 acres of corn. That pales in comparison to the country's top corn producer, Iowa, which planted 12.6 million acres the same year.

Many in South Carolina see switchgrass as an alternative to corn to produce ethanol. People don't eat switchgrass and the drought-tolerant plant has a longer growing season in South Carolina, which produces higher yields than switchgrass varieties grown in major corn-producing states. Also, as a perennial plant, it only has to be planted once.

Alternative to coal

Kern and his partners, Yuri Debevc and Jim Black, asked state-owned power company Santee Cooper to consider running its coal-fired electric plants off the briquettes Carolina-Pacific will be selling instead of off coal imported from other states.

Carolina-Pacific estimates a cost increase of about 8% per kilowatt hour but fewer toxic byproducts. Power companies that generate electricity with coal spend millions a year to clean the air used in the coal-burning process. Kern said the additional cost is nominal compared to the economic impact of using a state-produced product to generate electricity.

"We are importing coal from Kentucky and West Virginia at a rate that is astonishing."

Kern argued that energy companies serving South Carolina, not just Santee Cooper, could support the rural farming economy, especially along the I-95 corridor, by using switchgrass to generate electricity and then selling electricity back to the farmers that grow the switchgrass.

As a participating member of the S.C.

Biomass Council, Santee Cooper said it is monitoring the potential for switchgrass, but doesn't have any specific plans to use the crop in its operations. SCANA Corp., one of South Carolina's largest commercial energy companies and the parent company of SCE&G, also said it doesn't have any immediate plans to use switchgrass or any other cellulose-based material in its coal plants.

"We're always keeping our eye on the whole scope of fuels for power generation. These days it's more important than ever," said Eric Boomhower, manager of public affairs for SCANA. ■

Andy Owens is the managing editor of the Business Journal. E-mail him at aowens@scbiznews.com.