

Critical third test to begin on switchgrass

BY DALE JOHNSON

Generating electricity long-term from renewable switchgrass is taking a step closer to reality.

A new \$2.5 million processing building was dedicated Aug. 31 as part of a three-month test burn of 25,000 tons of switchgrass. A U.S. Department of Energy grant is funding the building.

Alliant Energy's Ottumwa generating station is conducting the third, and perhaps most important, test burn in the 10-year history of the \$16 million project known as the Chariton Valley Biomass Project.

Farmers are hopeful that switchgrass clears the last hurdle to determine its impact on Alliant's furnaces that burn coal.

"This is the next step," said an eager Stephen Gardner, an area farmer and Farm Bureau member.

Gardner is also president of Prairie Lands Bio-Products, Inc., a local farmer-directed group working to develop switchgrass as a renewable energy crop. Thousands of acres of highly erodible land in southern Iowa are set to exit the Conservation Reserve

Program over the next two years, and switchgrass is a better alternative than crops, says Gardner.

"Our goal is to prove to everyone that we can produce a quality biomass to produce electricity," added Corydon farmer Doug Goben.

With switchgrass, Goben says, "We can maintain the grass, enhance wildlife habitat and protect water quality. This is a great opportunity for agriculture."

The test burn will start this fall. Bales of switchgrass in 3-by-4-by-8-foot-long bales are being supplied by farmers.

Semi-trucks will deliver the bales to the processing shed, where they will be shredded and conveyed through a pneumatic tube to Alliant's furnaces.

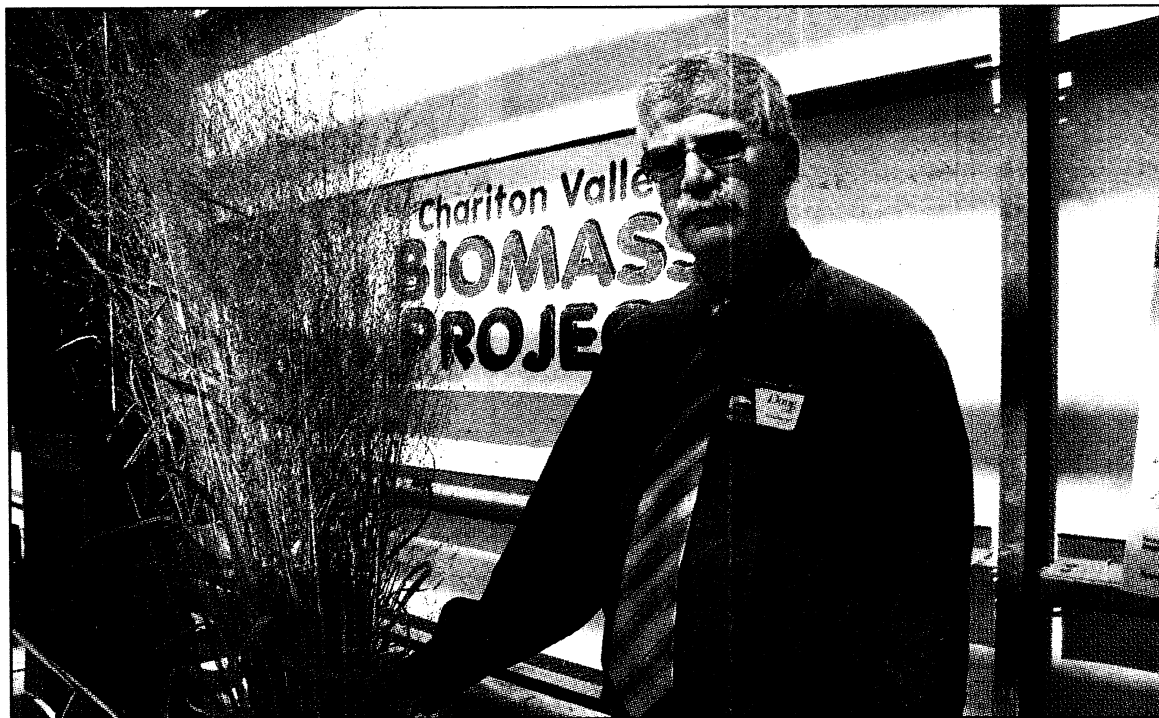
Alliant burns 450 tons of coal per hour. About 12 tons of switchgrass per hour will replace approximately 5 percent of the coal.

Benefits customers

"It's a big deal for us," stated Kim Zuhlke, vice president of new energy resources with Alliant, of the upcoming test burn.

The energy company is working on several fronts developing electricity from renewable sources. Wind generators are producing 600 megawatts, and on-farm methane digesters are being researched. Now, switchgrass is inching closer to being a viable source of energy, which will help control costs for consumers.

"We think this is clearly a win-win for Alliant customers and Iowa," Zuhlke stated. Other



Doug Goben, a farmer on the Chariton Valley Biomass Project board, believes switchgrass can be an income-producing crop on thousands of acres of land.

energy companies nationwide are closely watching progress at the Ottumwa station as Alliant gathers additional data and liquid propane and natural gas heating prices climb higher and higher.

Two earlier tests demonstrated low emissions from switchgrass. Also, a pound of switchgrass is nearly comparable to coal in British Thermal Units (BTUs) generated (up to 7,500 BTUs for switchgrass versus 8,500 BTUs for coal).

Aid the economy

The project started in 1995

through efforts of Chariton Valley Resources Conservation and Development and farmers in Appanoose, Wayne, Lucas and Monroe counties.

Well-maintained switchgrass can yield slightly more than 6 tons per acre when harvested in the fall following the first frost. The grass is worth about \$35 per ton, resulting in income equaling crop production.

Goben, the Corydon farmer, says burning switchgrass can help revitalize communities that have watched as implement and fertilizer dealers, and their employees,

dwindled in size and number.

Year-round burning of switchgrass to replace 5 percent of Alliant's coal will require 200,000 tons of the grass from 50,000 to 60,000 acres. Farmers from a 70-mile radius could become switchgrass producers, says Goben.

"If we can burn switchgrass, it will also take several custom-balers because you only bale in the fall after frost, as well as several truckers," Goben explained.

"And we'll also need new buildings to store the switchgrass. Those buildings will add to the property-tax base."



Gardner

Zuhlke

For many people have counted on you over the years