

26 September 2014



SENT TO LSU AGCENTER/LOUISIANA FOREST PRODUCTS DEVELOPMENT CENTER - FOREST SECTOR / FORESTY PRODUCTS INTEREST GROUP

ADVOCATE

Wood chips, rice hulls among materials converted into fuel

RICHARD BURGESS| RBURGESS@THEADVOCATE.COM Sept. 26, 2014

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CROWLEY — Old newspapers. Rice hulls. Wood chips. Chicken manure.

If it can be burned, researchers at the **University of Louisiana at Lafayette** are trying to make energy out of it at the new Cleco Alternative Energy Center in Crowley.

"This is a wonderful, giant test tube," UL-Lafayette <u>College of Engineering</u> Dean Mark Zappi said at a ribbon-cutting ceremony Wednesday for a facility that has been gradually taking shape over the past three years.

The research center features labs, a gasifier to turn wood chips and other biomass into fuel, and a massive set of solar thermal panels.

The goals are to explore how to squeeze energy from agricultural waste or other materials readily available in Louisiana and to develop homegrown renewable energy expertise.

"We wanted Louisiana companies to learn from this technology and market it across the globe," Zappi said.

But perhaps most important, he said, is to learn how to do it so the economics of renewable energy makes sense.

"That's the bottom line. How much is it going to cost?" he said.

Large solar thermal cells sit just outside the center's main building.







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Instead of making electricity directly from the sun's rays, like conventional solar panels, the solar thermal panels use large mirrors to intensely focus sunlight on a long pipe to heat water that powers a turbine to generate electricity.

The gasifier climbs two stories up in the main building, a maze of tanks and tubes and gauges.

Zappi said researchers can carefully monitor how best to turn wood chips, rice hulls or other materials into gases that can be used to generate electricity.

"We are taking data to see which of these will work in Louisiana," Zappi said.

He said the research center also experiments with coaxing out chemicals from the agricultural waste that can then be put back together like "Legos" to make products that are normally made in a traditional chemical plant.

The new research center is operated in partnership with <u>Cleco</u>, a Pineville-based utility that has been dipping its toe in the waters of renewable energy in recent years.

"It's an important facility at an important time in our state," Cleco Power President Darren Olagues said.

Cleco has solar energy projects at its Pineville headquarters and at its service center in New Iberia.

The company also worked with the Greater New Orleans Expressway Commission to build a wind turbine in Mandeville to gauge the possibilities of wind power in the state.

Olagues said renewable energy will play an increasingly important role in the state, but he believes more research is needed at facilities like the one in Crowley to figure out what forms of renewable energy make the most economic sense here.

"Let's make sure we understand what works for Louisiana first," he said.

Clyde Holloway, a member of the Louisiana Public Service Commission who attended the Wednesday event, said he wants to see sound research on renewable energy before the state proceeds with any mandates requiring utility companies to use a certain amount of renewable energy, as some other states have already done.

"It's going to let us know what it costs to have renewable energy," he said.





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UL-Lafayette operates and staffs the facility, and Cleco maintains it.

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Richard P. Vlosky, Ph.D.
Director Louisiana Forest Products Development Center
Crosby Land & Resources Endowed Professor of Forest Sector Business Development
Room 227, School of Renewable Natural Resources
Louisiana State University
Baton Rouge, LA 70803
Phone (office): (225) 578-4527

Fax: (225) 578-4251

Mobile Phone: (225) 223-1931



