

**South Florida Sun-Sentinel**

*Renewable energy plan*

# **Power for the Taking**

## **Biomass plant highlights renewable energy potential -- and pitfalls**

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By Jaideep Hardikar and Doreen Hemlock South Florida Sun-Sentinel

For 12 years now, Florida Crystals -- the sugar behemoth -- has been producing electricity from its own sugar cane waste in western Palm Beach County.

Its Okeelanta plant powers the company's sugar mill and refinery at its 155,000 acre-farm complex and sells surplus energy to [Florida Power & Light](#) and other utilities. "We grow electricity," quipped Florida Crystals' vice president Gaston Cantens, with a smile. "Not just sugar."

The 140-megawatt plant is the largest biomass power plant in North America and shows the potential for renewable energy in South Florida and nationwide -- but also its limits.

Florida Crystals said others have not followed its lead -- and it could not afford to build a stand-alone plant -- because utilities pay too little for the electricity it sells.

The price would be higher, if the state and nation required utilities obtain more electricity from renewables -- and consumers likely would pay about the same, Cantens said.

Both [Gov. Charlie Crist](#) and [President Barack Obama](#) back such renewable energy standards.

But Florida's Legislature this year failed to pass a state law, and Congress now is debating a federal one.

Critics contend plans to switch to renewables would be too expensive. Some utilities, including [FPL](#), want the standard broadened to include nuclear power. And some business groups urge more tax breaks and incentives to help utilities pay for the switch.

"If Florida adopts this standard unilaterally, without other neighboring states doing the same thing, we'll put Florida at a competitive disadvantage," warned Barney Bishop, president of Associated Industries of Florida, a Tallahassee-based business group that also backs oil drilling off Florida shores to help solve local energy woes.

But even critics of renewable standards marvel at Florida Crystals' biomass operation: Bishop calls it "extraordinary."

To produce its clean energy, Florida Crystals starts with mountains of dark soggy cane waste and with urban tree trimmings and other biomass trucked from cities nearby.

A web of conveyor belts carry the biomass into the six-story automated plant, operated by just a few people from a central computer room. Operators scan the plant through cameras and measuring devices from their chairs.

Huge biomass-fed boilers make steam to turn turbines and generate power for the factory and for utilities.

But there's the rub. Florida Crystals said it won't run its power plant full-out to supply the grid, when it receives just 3.5 to 4 cents a kilowatt hour nowadays.

To turn a profit, Cantens figures biomass plants need a price closer to what FPL charges customers: roughly 12 to 13 cents a kilowatt hour.

"Now, they don't have to buy (renewables). They make you an offer and basically, you have to take it," said Cantens. "If there were a renewable standard, you'd create a market."

FPL said it pays "avoided cost," or what it would cost to make its own power, using a formula set by state's Public Service Commission. Paying more "would essentially force electricity customers to subsidize Florida Crystals," according to FPL spokesman Mayco Villafana.

But that formula would change under a renewable energy standard, helping boost supplies, supporters say.

Florida has the potential to become a major producer of renewables -- from sun, sea, wind and biomass. According to the state's Agriculture Department, Florida could generate 93.5 million dry tons of biomass a year, or 7 percent of the U.S. total.

But today, the Sunshine State obtains less than 4 percent of its electricity from renewables, according to the Public Service Commission.

More green energy would help the environment and also the economy. A just-released study, commissioned by Florida's Department of Environmental Protection, found that generating 20 percent of electricity from renewable sources by 2020 would create 37,000 jobs and \$16 billion in economic activity by 2025 in the state. At the same time, the standard would cut greenhouse gas emissions by 319 million tons, helping fight climate change, the report said.

Yet businesses hesitate to move ahead in the absence of a clean energy policy in Florida, like the renewable standards now adopted in 32 states, said John Wark of the Renewable Energy Alliance, a group of companies and environmental organizations that promote more renewables.

"A lot of capital and wealth is waiting to be invested in renewable energy," Wark said.

Cantens said Florida Crystals spent more than \$200 million to build the power plant.

By burning nearly 1 million tons each of cane stalks and urban wood waste yearly, it avoids using either 1 million barrels of oil or 270,000 tons of coal -- fuels that would be imported from other states or countries. It also cuts carbon emissions by an amount similar to keeping 53,000 cars off the road for a year, Cantens said.

"We save on our electricity bills too," he added.

But Florida Crystals -- like many other investors -- has no plans to build more plants, unless a renewable standard passes.

"Without a standard," said Cantens, "we'll never have renewable energy produced on a mass scale."

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