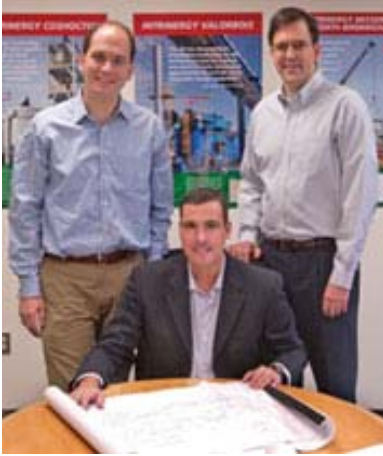


Virginia Business Magazine - Converting trash to cash

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by Garry Kranz

Virginia's natural environment has made it home to a spate of renewable-energy projects. There's a new biodiesel plant in Lee County, a long-awaited (and controversial) wind farm approved for Highland County and stepped-up interest in solar power, hydropower, and landfill-generated methane.



One small but expanding international company converts organic waste into renewable energy. Richmond-based Intrinergy Inc. produces energy from biomass, which includes wood chips, forest residue and even yard clippings. It uses "gasification" processes to convert otherwise unused hydrocarbons into usable energy.

This is a boon for large industrial companies that typically consume vast amounts of electricity. Intrinergy's approach gives them a way to reduce greenhouse gas emissions to nearly zero, says company President John Keppler.

One client, Ciba Corp, a chemical company in Newport, Del., is working with Intrinergy to cut its level of pollutants on a number of projects. " ... The partnership will allow us to drastically reduce our greenhouse gas emissions and improve our overall environmental profile," says Rudy Merstetter, Ciba's site manager in the U.S.

Known as cogeneration, the process used by Intrinergy simultaneously produces electrical power and steam. Many industrial plants require both to operate.

The company buys its feedstock from pulp and paper mills, sawmills, and facilities and companies that produce a great deal of organic waste each year.

As the company adds capacity, it also is buying more feedstock, especially as cooler months approach, says Thomas Meth, Intrinergy's vice president of sales and marketing. At present, Intrinergy buys about 7,000 tons of waste byproducts a month for its European and domestic operations. The company expects to buy an additional 25,000 tons in December to keep pace with increasing demand for heating during the winter.

Intrinergy consults with industrial clients to choose which feedstock best suits their needs. The company also funds the full cost of constructing the needed generation facilities on property adjacent to its industrial customers. The plants produce 50,000 to 250,000 pounds of steam per hour, depending on design and needs.

Since its inception in 2005, private investment of \$100 million has enabled Intrinergy to build a handful of renewable-generation facilities, including plants in Mississippi, Ohio and Germany. Intrinergy also received permits recently to erect a plant in Delaware. All told, about 35 projects are in its pipeline in North America, the Caribbean Islands, Hawaii and Europe.

"We believe realistically that we could invest \$2 billion to \$3 billion in renewable energy over the next five years," Keppler says. To date, Intrinergy has no Virginia customers among its clientele. But the 23-employee company is "working with a whole bunch of Virginia companies" interested in how Intrinergy's technology potentially could lower their energy costs, Keppler says.

Renewable energy from biomass holds a particular attraction for Virginia, says Keppler, noting that the commonwealth has nearly 16 million acres of forestland and about 4.2 million acres of cropland — potential sources for Intrinergy's feedstock.

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