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GOING GREEN

Creating environmentally friendly jobs could put Charleston on the map as a national model

By David Slade
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Brad Nettles
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(From Left) William Gray and Tommy Rich with Table Rock Technology install support beams for solar panels Thursday that will heat Charleston's Martin Luther King Jr. Pool.

The goal is nothing less than reducing energy consumption in homes and businesses throughout Charleston.

And the plan is to do it without government mandates and without new demands on local taxpayers.

If the city pursues recommendations it received from a consultant last week and can make the plan work, Charleston could become a national model for energy efficiency, while creating green jobs and helping property owners cut their utility bills.

"This is really a phenomenal program that the city is working on," said Claude St. Hilaire of Home Energy Group, a local company that consults on green building projects.

Mayor Joe Riley pledged in 2005 to substantially reduce Charleston's greenhouse gas emissions in order to combat climate change. Reducing the energy needs of buildings throughout the city would go a long way toward meeting his pledge.

"We could make a big impact," Riley said. "It's a great idea, and very workable."

St. Hilaire said it's easy to cut at least 10 percent from a building's energy demand, and if everyone in the United States did that, dozens of power plants would not be needed. Serrafix, the city's Boston-based consultant, thinks savings of 25 percent are possible.

Making potentially tens of thousands of private homes in Charleston more energy-efficient sounds like a tall order, and there would be lots of hurdles to clear, but the premise is simple.

Serrafix has proposed that the city create an organization that would be a one-stop shop for energy efficiency projects.

From this single organization a building owner could arrange a home energy audit, find out what changes would produce the greatest savings, learn about rebates and government incentives, select an approved contractor, and have the work done with no up-front cost. The building owner would realize utility bill savings immediately, and pay off improvement costs over an extended period of time through a surcharge on their water bill.

"We envision providing the building owner with everything they need to do except for signing the pieces of paper," said Andrew Gottlieb, project manager for Serrafix.

Every building in the city gets a Charleston Water System bill, so Serrafix decided that water bill surcharges would be an easy way to handle extended payments. The city collects its stormwater fee the same way, as a water bill surcharge.

The commissioners of Charleston Water System have not approved the concept but likely will be asked to do so at one of their upcoming meetings.

The math that could make the Serrafix concept work comes from eliminating the large up-front costs consumers can face when planning efficiency improvements, while balancing long-term payments against utility bills savings.

That's how they do it in Babylon, N.Y.

Save now, pay later

"Our goal is to get residents a positive cash flow from the outset," said Steve Bellone, Babylon's administrator.

The town on Long Island, with about 216,000 residents, is eight months into a revolving-fund efficiency program of its own. After about two years of planning, the Long Island Green Homes program was launched using \$2 million from the town of Babylon's solid waste reserve fund.



Wade Spees
The Post and Courier

Ben Leigh demonstrates a blower door used in home energy audits for the Sustainability Institute on Thursday at Charleston County's main library.

"We have to explain to them that there's no catch," Bellone said. "You're making your house healthier, more comfortable, and better for the environment, at no cost to you and no cost to taxpayers."

In Babylon, if a homeowner is expected to save \$100 a month from efficiency improvements financed by the revolving fund, they could pay \$80 a month until the cost of the improvements are paid off and keep the remaining \$20 of monthly savings. When the upgrades are paid off, the homeowner then realizes all the savings.

The town covers its overhead costs by charging 3 percent interest. Homeowners who participate can get "green" certificates from Babylon, which the town expects will be useful as real estate marketing tools.

"This is not a government handout or bailout," Bellone said. "It's a self-sustaining program that creates jobs, helps the environment, and saves people money."

Efficiency upgrades can create lots of local jobs because of the labor-intensive nature

of the work installing insulation, windows, water heaters, heating and cooling systems, and more.

"There are huge green job opportunities here, and this is often work that can be done by small businesses," said Riley.

Bob Fleming lives in Charleston and runs Classic Remodeling. He's been looking at efficiency improvements as a business opportunity.

To see how the numbers work out, he is using his own home as a test case and started by paying the non-profit Sustainability Institute to perform an energy audit.

Fleming said that even for a building professional, there's a lot of conflicting information about energy improvements, and it's not always easy to know what makes the most sense. In his case, the energy audit showed that his less than five-year-old home needs more insulation and had more air leakage than he expected.

He's also considering energy-efficient lighting, a water heating upgrade, and solar panels.

"All this stuff makes a lot of sense, but a lot of people don't want to put the money up front or can't get financing," Fleming said.

He said the city's initiative sounds like a very good idea, because it eliminates the financing hurdle and simplifies the decision-making.

Of course, homeowners already have the ability to make efficiency improvements to their houses. They could arrange a home energy audit, research tax credits and incentive programs, hire contractors, and take out a home equity loan in order to pay for the work and spread out the payments.

"I think that for your average consumer, it's pretty difficult," Fleming said.

The program in Babylon, as well as the one Charleston is considering, are aimed at uncomplicating the process.

'Steal their stuff'

When Serrafix principal Doug Foy first came to Charleston in March 2008 to address the Charleston Green Committee formed by Riley, he said other cities have taken steps to improve efficiency, and Charleston should borrow from those ideas.

"Steal their stuff," Foy told the committee. That's what Serrafix is doing now, on the city's behalf, building on what's been done in Babylon, in Cambridge, Mass., in Seattle

and elsewhere.

"I think the reach and scope of what we propose for Charleston is broader and deeper than what Babylon has been able to do," Gottlieb said. "We think the public sector has an important role to play, in the start-up, but there isn't enough public money out there to retrofit every building in Charleston."

Where Babylon's plan is part of the town government, Serrafix proposes that Charleston create a quasi-governmental organization that could potentially go to private financial markets to raise money for a revolving fund.

For example, the organization could sell bonds at favorable interest rates, backed by Charleston's ability to collect debts from property owners.

Hamilton Davis of the Coastal Conservation League said contracting with Serrafix could help the city get a program started faster than it might otherwise and might avoid some of the stumbles that could happen if the city created the initiative on its own.

"If we can do it in Charleston, then we can do it in other places in the state," he said.

Gottlieb said that if the federal government creates a cap-and-trade system for carbon emissions, the city's organization could raise funding by selling emission credits based upon the local energy savings.

Serrafix was hired by the city to develop a plan at the urging of the Coastal Conservation League. The company's initial report, delivered last week, was funded by private donations to the Green Committee.

The city has applied for grants to pay Serrafix up to \$600,000 to deliver a turn-key program for the city that could be up and running next spring.

"We would get the city to the point of having a fully functional partnership, able and ready to raise money and begin providing services," said Gottlieb. "You won't find, in any one place, the breadth of what we have proposed for Charleston."

For more information

[Powerpoint presentation \(24 slides\)](#)

Serrafix web site: www.serrafix.com

The Charleston Green Committee:
www.charlestongreencommittee.com/8x6_aboutus.html

The Babylon, N.Y. initiative: www.townofbabylon.com/whatsnew.cfm?id=252 and

www.thebabylonproject.org

The Cambridge, Mass. Initiative: www.cambridgeenergyalliance.org/faq.htm

Federal tax credits for energy efficiency:

www.energystar.gov/index.cfm?c=products.pr_tax_credits

Climate change impacts in the U.S.(National Oceanic and Atmospheric Administration) : www.climate.gov/Library/sap/usp/second-public-review-draft/default.php

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