

LOSING POWER

Duke Power Struggles with Textile Load Loss

Duke Power's roots are intertwined with those of the textile industry in the Carolinas. Duke's first power plant was built on the Catawba River in 1904 to supply electricity to a cotton mill. Textiles in the region flourished throughout most of the 20th century, as did Duke Power, providing low-cost electric power crucial to the industry's success—and sharing in its prosperity.

Earnings and employment in the Carolinas' textile business have declined dramatically. Textile manufacturing



Duke Power's Marshall Steam Station is located near Charlotte, N.C. Duke is working to attract manufacturing customers to offset declines in its sales of electricity to textile firms.

employment in the Carolinas has fallen by 44 percent just since 1997. And Duke Power has suffered a sharp drop in sales as a result of textile plant closings and curtailed operations. Its kilowatt-hour sales of electricity to textiles firms have tumbled 37 percent since 1997.

But sales to residential and commercial customers have risen, helping to offset the decline in industrial sales.

Duke wants its industrial base growing again and is aggressively pursuing opportunities to bring new industrial firms to the region. Since growth prospects in textiles are slim, the company has turned to other industries.

"We want to reverse the loss of manufacturing," says company spokesman Tom Williams. "We are expanding our economic development efforts and focusing on the manufacturing sector." Such efforts have led to identifying and targeting industries that have the best potential for growth in coming years, such as pharmaceuticals, plastics, paper products, and motor vehicle assembly and parts.

Manufacturing is believed to create more jobs, spinning off employment in other sectors, including services. Duke cites BMW's automobile assembly plant in South Carolina as an example. According to research conducted at the University of South Carolina, 4,327 jobs were created at BMW's manufacturing plant and 16,691 total jobs were added in the region as a result of the investment.

Manufacturers also have attractive electric load characteristics, using lots of electricity during off-peak periods when it's easier for electric systems to handle the loads. Industrial customers also consume a lot of electricity.

Despite the textile industry's contraction, Duke still sells massive amounts of power to textile firms. (Sales to the sector represented 31 percent of the company's industrial sales in 2003.) There's also reason to believe that the

decline in the industry may be slowing, and that the firms left are more specialized and thus more competitive.

Diversifying can't hurt, though. It would mean higher industrial sales growth and less risk for Duke Power.

—ROBERT LACY

ASIAN IMPORT

Testing the Bay Waters

The Suminoe oyster is at the center of proposals to revive the Chesapeake Bay. This Asian import promises to supplement native Eastern oysters that clean the bay and support the livelihoods of fishermen in Maryland and Virginia. But public officials, the seafood industry, and researchers are wrangling over how to introduce a nonnative species into the bay without sparking a destructive invasion.

Commercial landings of Eastern oysters in the Chesapeake Bay have rapidly fallen over the last century to a fraction of historic levels. Two deadly diseases, MSX and dermo, and overfishing are widely considered the culprits.

In 1995, Virginia lawmakers asked the Virginia Institute of Marine Science (VIMS) to evaluate the introduction of nonnative species as a way to reverse the bay's decline. Their first tests focused on Pacific oysters, which thrive off the West Coast and other fisheries worldwide. The oysters didn't respond well to the bay's environment and they didn't taste as good as the Eastern oyster.



COURTESY OF MARYLAND WATERMEN'S ASSOCIATION

Compared to oysters native to the Chesapeake Bay, Suminoes grow faster and larger, and they are more resistant to disease.

Field and laboratory tests of Suminoe oysters by VIMS and the Virginia Seafood Council were far more successful. The nonnative organism grew to market size two to four times faster than native oysters and resisted MSX and dermo. And the meaty oyster tasted good. This excited aquaculture firms, commercial fishermen, and government officials in bay communities looking to improve the regional economy.

Suminoe oysters could be ecologically beneficial as well as commercially so. They could improve water quality in the Chesapeake Bay by feeding on algae, whose massive blooms deprive fish of oxygen and block sunlight from nourishing underwater sea grasses, promoting dead zones in the bay.

A 2004 report from the National Research Council was more cautious. "Introducing these nonnative oysters in the Chesapeake Bay is not a magic bullet for either saving the oyster industry or restoring the bay," noted Dennis Hedgecock, co-chair of the 11-member team that

worked on the report. "But contained aquaculture of infertile nonnative oysters on a small scale would provide more information for industry and policymakers to make a sound decision on further use of nonnative oysters."

The report's authors and other researchers are concerned that little is known about the biology of Suminoe oysters, making it difficult to predict whether their net effect on the bay would be positive or negative. The nonnative species could invade, spread throughout the bay and crowd out Eastern oysters and other native marine life. It could also serve as a carrier for nonnative pathogens. For example, an earlier effort to introduce the Pacific oyster in the 1950s may originally have brought MSX to the bay.

To fill the knowledge gap, the U.S. Army Corps of Engineers and a team of state and federal regulators are evaluating the introduction of Suminoe oysters. Eight aquaculturists are testing large-scale cultivation of Suminoes, scheduled to end in April 2005.

—CHARLES GERENA

RICHMOND RETAIL

Open-Air Centers Compete for Luxury Shoppers

Richmond, Va., is shopping these days at two upscale malls that opened within weeks of each other in September 2003. Richmond's two regional malls were the only two such centers that opened in the nation.

Though unusual, it was happenstance helped along by competition between the two mall owners, says Brian Glass, vice president of retail brokerage at the real estate firm Grubb & Ellis/Harrison & Bates. Forest City Enterprises owns the new Short Pump Town Center. Taubman Centers Inc. built its competing mall, Stony Point, to complement its existing indoor mall, Regency Square. Until the new malls were built, Regency dominated Richmond's mall landscape. "We ended up with dueling malls," Glass says.

Stony Point Fashion Park and Short Pump Town Center are outdoor malls, decked out lavishly with fountains and brick facades.

"[These] tend to be higher-end in the tenant mix and inclusion of streetscapes and entertainment," says Patrice Duker, spokesperson for the International Council of Shopping Centers. "Very atmospheric." The expensive stores and boutique retailers are new to Richmond retail. The general manager of Stony Point and Regency, Sid Welch, says stores selling luxury items are riding high, particularly Saks Fifth Avenue. Stony Point is

99 percent leased and occupied, according to Welch, and many stores are exceeding sales expectations, especially the sporting-goods retailer, Galyan's. (Galyan's has been acquired by rival Dick's Sporting Goods.)

"I think Richmond was thirsty for upscale shopping," he says, adding Richmonders had been driving to high-end malls in the Washington, D.C., area or Norfolk's MacArthur Center. "Saks, for example, could look at the zip codes and tell you how many dollars were being spent in Northern Virginia from Richmond. There was definitely a hunger for that upscale shopping that didn't exist in Richmond. Hopefully we've captured the majority of that."

But one of the most chichi tenants, Lord & Taylor, never showed up at Short Pump. Instead, the company backed out and sent the mall scrambling to find new businesses that would generate comparable sales. Whether Richmond can support luxury retailers such as Louis Vuitton at Stony Point and Nordstrom's at Short Pump is still a question yet to be answered, Glass says. But his informal retail survey indicates that the restaurants at both malls are faring especially well.

"It turned out that the restaurants were the components reaping the harvest — Maggiano's at Short Pump, Flemings and P.F. Chang's China Bistro and Brio Tuscan Grille at Stony Point," he notes, adding that the Cheesecake Factory will replace Lord & Taylor at Short Pump Town Center.

As for open-air mall shopping, it's popular because it saves time for today's destination-oriented consumer. Shoppers spend an average of 56 minutes at an outdoor mall and 76 minutes in an enclosed shopping center, Duker says. These days, people like to park nearby, shop at two or three stores, and head home.

—BETTY JOYCE NASH

DEAL SOLIDIFIES REGIONAL PRESENCE

SunTrust Enters the Carolinas

SunTrust Banks Inc., of Atlanta, has agreed to purchase National Commerce Financial Corp., of Memphis, Tenn., the parent company of Central Carolina Bank. The \$7 billion deal will fill in SunTrust's market with some 233 branches in the Carolinas, pushing it to No. 3 in market share in the Southeast. The merger will rank SunTrust No. 7 in the United States, with \$148 billion in assets and \$97 billion in deposits.

SunTrust's branches stretch from Maryland to Florida. Until this deal, there was one huge void in its service area: the Carolinas. The bank's new branches will include significant clusters in some of the fastest-growing metropolitan areas in the Carolinas: 71 in Raleigh-Durham, 57 in Greensboro-Winston Salem, 47 in Greenville-Spartanburg, and 36 in Charlotte-Gastonia. Bank officials say branch consolidations will be limited.

SunTrust had attempted to establish a presence in the Carolinas in 2001 by acquir-

ing Winston-Salem-based Wachovia Corp. But Charlotte-based First Union Corp., beat them, creating the fourth largest bank in the United States. (The consolidated firm retained the Wachovia name.)

SunTrust hopes the acquisition of Central Carolina Bank will help it compete with Wachovia and another southeastern rival, Bank of America. The deal remains subject to shareholder and regulatory approval.

—AARON STEELMAN

MORE MONEY FOR MOORE

Donation To Fuel USC's Effect on State Economy

Financier Darla Moore made history last April by donating \$45 million to the business school at the University of South Carolina. Combined with her \$25 million contribution in 1998 to the school bearing her name, Moore became the nation's largest private donor to a business school.

She explained the motivation behind her generosity in a statement. "If our students are prepared with state-of-the-art training and a rigorous educational environment, then they can add fuel to the economic engine of our state's future, as well as our nation's."

Her money will be combined with matching funds from the USC Board of Trustees and donations raised over the next few years to upgrade the business school's decades-old facilities. It will



The Moore School of Business will use its \$45 million donation to expand programs such as its Professional MBA, which offers instruction at multiple classrooms via satellite.

also augment the school's \$62 million endowment, positioning it to expand its role as a source of talent and technical assistance for South Carolina businesses.

In today's competitive global economy, developing human capital — the collective knowledge, skills and abilities of a population that make them productive — is essential for making a work force responsive to change. Business schools supply this capital through degree programs and executive education for working professionals. Each institution finds its own way to balance instruction on the fundamentals of business and economics with practical, specialized coursework to meet the needs of employers.

"It's not just an academic enterprise in an ivory tower," says Philip Quaglieri, dean of the College of Management at the University of Massachusetts-Boston. "We like to think of it as the human resources department for business and industry." As part of a workgroup of the Association to Advance Collegiate Schools of Business, Quaglieri examines how schools contribute to met-

ropolitan area economies.

In the case of the Moore School of Business, only some of its human capital stays in South Carolina. Most students leave the state after graduation because of the lack of challenging employment opportunities and the demand for MBAs elsewhere, according to the school's dean, Joel Smith III. Still, Smith views out-of-state alumni as ambassadors who can raise South Carolina's visibility and send new industry back home.

Business schools also offer expertise to companies. Moore's research division produces economic data and analysis that help inform the decisionmaking of businesspeople. More directly, Moore sends its faculty and students into the trenches as consultants. For example, the Faber Entrepreneurship Center pairs students with local small businesses to assist in accounting, marketing, and other areas.

In addition, business schools support businesses via incubators for startups, small business development centers, and research centers. The Moore School's Center for International Business Education

and Research studies how to improve U.S. competitiveness in the global economy. The school also operates the South Carolina Real Estate Center, and the Center for Information Management and Technology Research.

With millions in new funds, the Moore School of Business will do more to invigorate the state's economy, a mutually beneficial effort. "We want to contribute to the building of an economic system in South Carolina that provides greater opportunities for the graduates we are producing in the process," notes Smith.

—CHARLES GERENA

ASPHALT ANTIDOTE

"Living" Roofs Absorb Runoff

While we are well aware of the aesthetic and ecological value of growing plants and trees on lawns and indoors, most people don't realize that growing plants on a rooftop can drastically reduce storm-water pollution.

Living roofs, also known as green roofs, consist of multiple layers that promote plant growth, provide proper water drainage and filtration, and prevent roots from growing into a building—all while absorbing up to 100 percent of rainfall. Living roofs have been covering European industrial and office buildings for more than a quarter century. But Chris Taylor, director of marketing and operations for Building Logics in Virginia Beach, Va., says such roofs have been slow

in coming to the United States.

"We've been doing this now for three years, and it's a hot topic with architects and designers," Taylor says. "I think you will find more and more of it in the future, but the practicality of it needs to be demonstrated."

Living roofs cost about 30 percent more than a conventional roof, but the roofs partly pay for themselves in storm-water runoff prevention, among other benefits. Runoff is dirty water, full of sediment, drippings from automobiles, and litter. It infiltrates rivers and streams and can be blamed for half of the water pollution in the United States, according to the U.S. Environmental Protection Agency.

Local government officials in Arlington County, Va., hope to show the benefits of the green roof with Courthouse Plaza in Arlington. The retrofit roof covers the original tar and gravel roof making it pleasant to gaze on from surrounding buildings, says Joan Kelsch, an environmental planner for Arlington County. "The roof also makes the building cooler, thus saving energy on air conditioning. ... The soil and plants protect the waterproofing layers so they last up to two to three times longer than a standard roof, which saves significant amounts of money in the long run," says Kelsch. And, the roof mitigates the impact of storm-water runoff.

The structure of a green roof is not significantly more expensive than a conventional roof, says Taylor of Building

Logics. "The additional layer of a soil medium and the planting on top of that is where the extra dollars come from," says Taylor.

The cost of living roofs may decline as they gain acceptance and competition increases, says Roger Schickedantz, an associate partner with the Charlottesville, Va., firm, William McDonough + Partners. A green roof adds about \$11 to \$13 per square foot to the cost of a conventional roof, he says. The Charlottesville firm designed the world's largest living roof on the Ford Motor Company's renovated Rouge assembly plant (see "Dollars in the Dirt" in the Winter 2004 issue of *Region Focus*).

Before he began specializing in green roof plants, Ed Snodgrass, owner of Emory Knoll farms in northern Maryland, discovered the value of drought-tolerant perennials while trying to make his farm

more sustainable. With a background in environmental education, Snodgrass realized that plant cover would "become an issue with the explosion of the suburbs around Washington, Baltimore, Richmond, and Philly."

As farmland turns to asphalt and rooftops, green roofs could play a big role in storm-water prevention. Roofs represent 15 percent to 30 percent of the total land area in major cities. That's a lot of potential for green space.

But rooftop renewal won't happen quickly without incentives. "Having watched the slow pace at which solar panels are being accepted in the United States, I wouldn't expect green roofs to fall into place any faster," Schickedantz notes. "Both these technologies seem to flourish only where there are incentives or regulations in place."

—JENNIFER SPARGER



Completed in October 2003, this retrofit living roof atop the Arlington County Government Center is filling in quickly. The county also plans to top a community center and a fire station with sections of vegetative roofing.