It’s official: The nation’s biggest utility is now based in Charlotte, N.C. Duke Energy Corp. absorbed Progress Energy Inc. of Raleigh in July.

The enlarged Duke will serve 7.1 million electricity customers — 3.2 million in North Carolina, the rest in South Carolina, Florida, Indiana, Kentucky, and Ohio.

In North Carolina, Duke’s rates are currently lower than Progress’ rates, so, for now, Duke Energy Carolinas and Progress Energy Carolinas will operate as separate subsidiaries. “Once they integrate, take care of cost cutting, and eliminate redundancies, and once Duke Carolinas and Duke Progress Energy rates are on par with each other, they’ll merge,” says utilities lawyer Chris Ayers of Poynter Spruill, a Raleigh law firm.

Retail electricity rates in North Carolina are regulated by the North Carolina Utilities Commission (NCUC), and determined by firm investments and operating expenses, among other factors. The merger puts the regulated share of Duke’s businesses at 85 percent, up from 75 percent.

Cost savings from combined generating systems will lower fuel and borrowing costs, and are expected to save customers an estimated $650 million over five years. Despite the touted cost savings, and falling coal and natural gas prices, Duke wants rate increases later this year to cope with costs of plant upgrades and replacements and stricter environmental rules. The NCUC approved a 7.2 percent hike earlier this year.

Electric utilities’ costs may be rising, but demand growth has been fairly flat, rising 0.7 percent annually from 2000 to 2010, according to the U.S. Energy Information Administration. Projections call for rebounding but still slow demand growth because of higher energy prices and conservation.

Duke and Progress had to modify merger plans to assure the Federal Energy Regulatory Commission (FERC), which regulates wholesale generation, that competition would not be diminished in North Carolina. The approved plan includes seven new transmission lines designed to create more competitive wholesale markets. This allows outside providers to sell in North Carolina, according to Duke spokesman Dave Scanzoni. Construction costs are estimated at $110 million over two to three years. Until then, Duke will sell electricity to new market participants through purchase agreements with energy trading companies.

A number of cities in eastern North Carolina opposed the merger because they buy power wholesale and sell it to their customers. They worry about Duke’s market power. Their opposition was rooted in the 1970s decision to help finance two nuclear plants for Progress’ predecessor company, Carolina Power & Light. This bought them a minority stake in the plants to help meet expected power demand at a time when wholesale electricity rates and interest rates were rising. But cost overruns, especially at the Shearon Harris nuclear plant, combined with high debt service, haunt their customers’ electricity rates today. Those customers pay an average of $136 per month compared to the $104 average that Progress Energy residential customers pay.

“Their [the cities’] view was you’ve cut competition in half,” Ayers says.

The City of New Bern and the City of Rocky Mount have asked the FERC to re-hear the merger case. “Our ability to compete for lower cost electricity will be
smaller with the merger,” says New Bern Mayor Lee Bettis.

The cities’ Washington, D.C., attorney, John Coyle, says the FERC underestimated Duke’s dominance. “What our complaint is about is how you measure the increase in market concentration due to the merger,” he says. “The FERC understated market concentration and therefore understated what the company had to do to fix it.”

Duke contends that the new transmission lines will bring competition from outside sellers.

The acquisition also brought controversy over a leadership switch. Former Progress Energy chief executive Bill Johnson was slated to head the new Duke Energy. However, Duke’s former chief executive Jim Rogers replaced Johnson shortly into the first post-merger board meeting. NCUC chairman Edward Finley stated at a July 10 hearing that the commission is investigating why the leadership changed “within hours of the close of the transaction and what ramifications or repercussions might result from these unexpected and unanticipated events.”

Duke Energy Corp.’s lead director Ann Gray testified in the hearing that the company’s board acted appropriately. —BETTY JOYCE NASH

Technology Transfer

D.C. and Baltimore Areas Vie with Silicon Valley in Tech Jobs

Recently Forbes ranked the Washington, D.C., and Baltimore, Md., metro areas ahead of Silicon Valley on its annual list of best cities for technology jobs. The Washington-Arlington-Alexandria Metropolitan Statistical Area, which covers Washington, D.C., Northern Virginia, suburban Maryland, and part of the Eastern Panhandle of West Virginia, ranked second, and the Baltimore-Towson area placed fifth, according to the report published in May. The San Jose, Cal., metro area, which includes Silicon Valley, finished seventh.

Forbes judged metros by growth in science, technology, engineering, and mathematics occupations (STEM), as well as technology industry growth and occupation concentration. Both the Washington and Baltimore areas logged an average of 4 percent tech sector growth over the past two years, while Silicon Valley ended 2011 with 170,000 fewer tech employees than in 2000. The report credited the “broadness of the tech economy in the greater D.C. area” as a key to its growth.

“The Washington tech complex boasts substantial employment in such fields as computer systems design, custom programming and private-sector research and development,” Forbes noted.

The region has also drawn strength from public research and development institutions, such as those in life sciences and national defense. The Baltimore area is home to labs such as the National Cancer Institute in Bethesda, Md., as well as premier life sciences research schools like The Johns Hopkins University. The Department of Defense’s IT and communications support unit, the Defense Information Systems Agency, moved from Virginia to Fort Meade, about 15 miles south of Baltimore, last year, bringing demand for more cyber security employees.

“A lot of the core competencies of the region definitely come from federal influence, but I think that this new rejuvenation is being driven more by the private sector than the public sector,” says Robert Rosenbaum, president and executive director of the Maryland Technology Development Corporation (TEDCO), a nonprofit that receives state funds to support growth and entrepreneurship in Maryland’s tech industries. One of its upcoming initiatives seeks to invest $5.8 million of public and private dollars to develop commercially viable technologies.

D.C. is also seeking to grow its commercial tech sector. The District offered $32.5 million in tax incentives over a five-year period starting in 2015 to homegrown social media start-up LivingSocial in exchange for the company’s promise to remain in the city and hire local workers. The company employs about 1,000 people in the area. Leaders in the District hope its tech sector will flourish as skilled workers cluster and attract other tech companies.

That pool of talent may already be in place. According to the May 2011 Occupational Employment Statistics from the U.S. Bureau of Labor Statistics, the District had the highest concentration of computer hardware engineers in the nation.

New technology also allows for the expansion of existing industries in new directions, as is the case with additive manufacturing in Baltimore. The process, often called “3D printing,” involves creating three-dimensional objects from cartridges of raw materials. It has helped reduce production time in prototyping, for example, but it also opens the door for individuals interested in...
Maryland’s roughly 300,000 six-figure earners will bear more of the state’s income tax burden starting this year. In May, the Maryland General Assembly raised income tax rates, retroactive to January 1, for individuals making more than $100,000 and joint filers making more than $150,000 per year. That comprises roughly 14 percent of the state’s taxpayers. Depending on the income level, rates will increase by 0.25 percentage point to 0.75 percentage point. For a family of four making $250,000, for example, the new law could translate into an additional $989 in annual taxes.

Affected taxpayers will feel the burden even more sharply since tax withholding for the remainder of this year must make up the increase that accrued during the first half. Although retroactive tax increases are not unheard of — Connecticut enacted a similar one just last year — taxpayers can only budget their incomes according to the tax rates they know ahead of time.

According to the legislators, the $250 million in revenue resulting from the income tax hike will prevent, or at least delay, major cuts in state spending, a scenario some had dubbed the “doomsday budget.” Gov. Martin O’Malley argued for the importance of state education spending and efforts to curb rising public university tuition as imperatives for the tax increase.

Other states have tried increasing tax rates on higher income earners. New York, in December 2011, raised income taxes on its millionaires, though it cut taxes for residents earning between $40,000 and $300,000. Meanwhile, 64 percent of Californians recently surveyed support a proposed referendum for November 2012 to increase the tax rate on California residents who earn more than $250,000 in annual income.

The higher taxes could bring unintended economic consequences. One is more volatile state revenue. Tracy Gordon, a tax expert at the Brookings Institution, points out, “high income individuals themselves tend to have more volatile income streams,” since they often rely on income from capital gains and stock options. If states rely on wealthier residents for more and more of state revenue, that “does put the state on a little bit of a roller coaster in terms of revenues going up by quite a lot when times are good economically, and then also going down quite a lot when times are bad.” (See “Toll and Trouble for Revenue Forecasters,” Region Focus, Third Quarter 2011.)

Critics also argue that higher tax rates could drive six-figure earners out of the state. But theoretical possibility can differ from reality. Many economists have conducted empirical research on taxes’ effect on interstate migration, and have generally found a small yet statistically significant correlation between increases in a state’s income taxes and more migration from that state. A 2011 study focusing on the proposed “millionaires’ tax” in New Jersey found that tax-induced migration would not come “anywhere close to eclipsing the immediate revenue gain from an income tax increase,” according to economists Roger Cohen, Andrew Lai, and Charles Steindel of the New Jersey Department of the Treasury. Nevertheless, the authors concede, “over time, migration could offset a meaningful share of revenue boost.”
Electronic payment options are putting more locally grown fruits and vegetables on peoples’ plates and more money in vendors’ pockets as farmers markets increasingly accept electronic benefits transfer (EBT) cards. The cards are issued by state governments to those who qualify for the Supplemental Nutrition Assistance Program (SNAP), formerly known as food stamps. The technology also allows markets to swipe credit and debit cards.

Tom Elmore likes selling his home-grown produce to those who may need it most. He has farmed organically in Leicester, N.C., for 25 years, and sells at the West Asheville Tailgate Market, which began accepting EBT, credit, and debit cards last spring.

“Small farmers, as a general rule, are not particularly affluent, so we can relate to low-income people,” he says. “It’s a great thing to sell to a wide range of clientele, particularly folks who are interested enough in good food to shop at our market.”

The average monthly SNAP benefit per person in North Carolina is $124.58.

Less than a quarter of the nation’s roughly 7,100 farmers markets — about 1,548 — are set up to accept the EBT cards, so the U.S. Department of Agriculture (USDA) last May announced grants to expand the program. North Carolina, with about 200 markets, will receive $109,631 to pay for wireless card readers and monthly access fees; Virginia has roughly the same number of markets and will get about $92,000.

A market typically operates one device at a central location, where customers buy tokens that they then exchange for products. EBT customers buy tokens in $1 increments; credit and debit card customers buy $5 tokens. (The reason for the difference is that SNAP participants can’t receive change from vendors.)

Some markets charge customers for credit or debit sales to cover various transaction fees. But the West Asheville market instead assesses vendors $2 per week in addition to the regular weekly fee, an option the vendor committee chose to encourage card use.

Mike McCready manages the Asheville City Market. His card-related costs will total roughly $5,000 this year, he says, including bank fees and staff time for record-keeping. In 2011, the market in downtown Asheville grossed roughly $700,000, and about 10 percent of that was token sales. Of that 10 percent, EBT sales represented a third, and the rest were credit or debit sales.

“We are seeing [EBT] sales grow each year,” McCready says. “It’s an investment in the future.”

A North Carolina nonprofit, The Leaflight Inc., helps markets equip, train, and promote EBT use. The cards, says executive director Robert Smith, help penetrate “food deserts,” locales lacking fruits and vegetables. “You may live close to convenience stores with cupcakes, potato chips, and beef jerky, but you might have to travel eight to 10 miles to get to a supermarket,” Smith explains.

With funds from another nonprofit, the national Wholesome Wave Foundation, the Spotsylvania Farmers Market in Fredericksburg, Va., offers $10 in tokens as a bonus for SNAP customers who buy $10 in tokens or more, according to manager Elizabeth Borst. “We want to bring everybody in our community into the farmers market concept.” Token sales in 2009, for only four

continued on page 30

Maryland might face the possibility of reduced immigration, as well. People moving to the Washington, D.C., metro area might decide to live in Virginia instead of Maryland because of the latter’s tax increase. A 2010 study found that “differences in state income tax rates have a statistically significant impact on the probability a household locates in the low tax state within an MSA,” according to economists William Hoyt of University of Kentucky, Paul Coomes of University of Louisville, and Kenneth Sanford of Middle State Tennessee University.

Nevertheless, “taxes are just one part of the picture,” says Gordon. Taxes alone neither cause people to move out nor prevent people from moving in; factors like education and safety remain relevant. “If people were weighing the decision to migrate to another state, like Virginia, they would have to weigh all the factors that contribute to their quality of life.”

— Seth Rubinstein
The Once and Future Fuel
But future shale gas yields are uncertain and evolving. Original estimates of the Marcellus Shale’s “unproven technically recoverable” gas have been more than halved, from 410 trillion cubic feet to 141 trillion cubic feet, according to the U.S. Department of Energy’s Annual Energy Outlook 2012. Revised estimates forecast the Marcellus supply at about six years’ worth of U.S. gas demand.

The estimates will continue to be tweaked as drilling continues, says John. “It could last for decades. I think it will. I’m expecting my kids, their kids, and maybe even their kids to participate in this business for a long time.”

The plentiful supply and low prices may hasten fuel-switching. Trucks running on liquefied natural gas (LNG) would cut U.S. oil imports and carbon dioxide emissions; LNG would be cheaper than diesel fuel. (The interstate trucking industry’s transition to a hub-and-spoke system may ease the problem of establishing LNG fueling stations.)

Chesapeake Energy, the second largest U.S. natural gas producer, has invested $150 million to develop 150 liquefied natural gas fueling stations.

Low natural gas prices have also spurred electric utilities to rebalance energy portfolios to avoid installing carbon controls. Carbon dioxide emissions from natural gas are about 45 percent lower per British Thermal Unit (Btu) than coal — and bring no soot, no mercury. (A Btu is the amount of energy it takes to heat a pound of cold water by one degree Fahrenheit.) Dominion Virginia Power predicts that by 2017, natural gas will represent 23 percent of its electricity generation, compared to 12 percent in 2011.

“It’s a game changer, there’s no doubt about it,” says Jim Norvelle, director of media relations at Dominion, parent company of Dominion North Carolina Power and Dominion Virginia Power. “For the near future, this company is building either gas-fired or renewable stations.” And Dominion plans also to convert its import terminal in Baltimore to one for exporting LNG, for which demand is expected to grow, especially in economies such as China’s.

The shale boom, environmental rules, lower economic growth, and other factors have prompted coal plant closings. In July, the Energy Information Administration reported that plant owners and operators expect to retire about 8.5 percent of 2011 coal-fired capacity between 2012 and 2016.

Predictably, shale gas regulations may go too far for the industry and not nearly far enough for environmentalists. As costs and benefits become clearer, with more research, policy tools can better satisfy concerns on both sides. In the meantime, Don Riggenbach is hoping for Wetzel County wells to produce big. The sooner royalties from wells, a share of profits, arrive in area lease-holders’ hands, the sooner he’ll be selling them new floor and wall coverings.

Readings


Editor’s Note: In the Upfront section of our First Quarter 2012 issue, the article “East Coast Ports Prepare for Bigger Ships from the Panama Canal” looks at port expansions to accommodate “post-Panamax” vessels. It should be noted that the Port of Baltimore, a deepwater port at the northern fringe of the Fifth District, is preparing to make way for these large container ships.