

## PUBLIC TRANSPORTATION

### Gas Prices Boost Light Rail

Charlotte's new light rail line, a rarity in sprawling southeastern cities, is rolling like a juggernaut. In a case of perfect timing, Charlotte's 9.6 mile Lynx Blue Line opened as gas prices climbed, in November 2007. It has exceeded passenger forecasts by 40 percent so far.

Pump prices have prompted a 2.8 percent national decline in vehicle miles traveled so far this year. In fact, an analysis by Cambridge Energy Research Associates suggests that, if petroleum prices stay at or near current levels, gasoline demand in the United States may have peaked. Consumers are driving less and are also choosing more fuel-efficient cars based on gasoline prices that began rising two years ago. Car sales in the United States have declined since mid-2005, and hybrid vehicle sales have increased by more than a third from 2006 to 2007.

Another byproduct of higher fuel prices is that more riders are seeking out public transportation. The Greater Richmond Transit Corporation (GRTC) reports that more suburban dwellers are riding the bus. Vanpools have also become more popular. Last April, nearly 3,000 more people, 15 percent more, rode vanpools than in April 2007, according to the GRTC. And in Norfolk, Va., 32 percent more people rode the bus in the first quarter of 2008 than in the same period in 2007. The city broke ground on its light rail project last fall.

Charlotte's rail line has become a model. "Since we have opened, from December [2007] through the end of April, we are averaging daily about 13,000, just during the week," says Jean Leier, spokesman for the Charlotte Area Transit System (CATS). The light rail system in Baltimore had almost 17 percent more riders in the first quarter of 2008 than it did in that quarter of 2007.

While this spark of public interest may help the benefit side of the public transportation ledger, light rail remains a heavily subsidized way to travel. Light rail is tough for economists to accept because these systems cost big money to build, money that typically comes from all taxpayers through federal grants as well as state and local taxes.

Public transportation doesn't pay for itself. "Even if every person in a city rode light rail, the subsidy rate per rider would still greatly exceed that of the automobile because the fares for light rail cover only about 25 percent of the operating cost of an additional passenger — the remaining 75 percent is subsidized," says Thomas Garrett, an economist at the St. Louis Fed who has studied light rail transportation.

Part of the problem is that driving has seemed cheap by comparison. But drivers don't pay the full cost of that either. They do pay federal and state gas taxes if they drive, and that



*The Charlotte Area Transit System's Lynx light rail line has exceeded its ridership projections by 40 percent since it opened in November 2007.*

helps fund highway construction and maintenance. Yet driving involves hidden costs. Drivers pay in fuel, time, and car depreciation, but not costs imposed on others such as pollution and congestion. That leads to a higher-than-optimal number of cars on the road much of the time.

Many mid-sized cities were developed on the assumption that car use would remain prevalent, and it's been hard to design and implement successful rail projects. Charlotte planned commercial projects around its proposed rail line. "There is a lot of density being built around the line," Leier says, mixed-use developments as well as entertainment venues. The Time Warner Cable Arena, home of the Charlotte National Basketball Association franchise the Bobcats, sits adjacent to the Blue Line. The Courtside, a 17-story building less than two blocks from two light rail stations, has sold out its 107 residential units. Other projects are under way.

Norfolk's light rail route will serve the Eastern Virginia Medical Center through the downtown, with stops at Harbor Park, the minor league baseball stadium, among others. Private developers are responding with transit-oriented project proposals, says James Toscano, spokesman for Hampton Roads Transit.

For the people in Charlotte and Norfolk, these light rail projects offer a convenient alternative to driving and parking. In general, the benefits of light rail projects like these are concentrated, with the costs dispersed among many, many taxpayers, according to Garrett and co-author Molly Castelazo: "The many who stand to lose will lose only a little, whereas the few who stand to gain will gain a lot."

— BETTY JOYCE NASH

## DRILL THOSE HILLS

### Fuel Price Spike Lures New Investment

Energy firms have pumped up natural gas and oil exploration in fossil-fuel rich West Virginia because of rising fuel prices and improved drilling technology.

“There’s lots of excitement among major players,” says Charlie Burd, executive director of the Independent Oil and Gas Association of West Virginia.

Potential for natural gas within a layer of rock called the Marcellus shale has further fueled that excitement. Dominion has rights to drill on about 1.9 million acres, and has leased about 205,000 of those acres in West Virginia and western Pennsylvania to Antero Resources Corp. for \$552 million and a 7.5 percent royalty. Chesapeake Energy Corp. in 2005 bought Columbia Natural Resources, a natural gas exploration firm with assets in Appalachia, for \$2.9 billion.

This Marcellus shale formation begins in New York and extends through Pennsylvania down the eastern spine of the Appalachian Mountains. It holds natural gas that, until recently, was considered too expensive to extract. But yields from a similar formation in Texas has focused attention on this West Virginia shale.

A geologist with the West Virginia Geological and Economic Survey, Lee Avary, is fielding double the usual information inquiries from energy firms and many landowners, curious about drilling rights contracts they’re being offered.

This untapped natural gas is good news because the state lies so close to the large Northeast markets, Avary notes. Appalachian natural gas is typically shipped to northeastern utility companies, while its oil is shipped south for refining. Another way to gauge increased activity is to count oil and gas rigs. They’re expensive, and volatile prices make the drilling rigs hard to plan and place. West Virginia had 32 rigs by the end of 2007, compared to 14 at the end of 2000, according to Baker Hughes, a petroleum industry services firm.

In the Mountain State’s early history, oil and natural gas was a complete mystery — a nuisance, in fact — for salt miners. A candle flame could cause gas “vents” to flare, and these “burning springs” were described by Thomas Jefferson as early as 1781. Deeper drilling yielded oil, and by 1859, 200 barrels a day came out of the ground. Oil production peaked at 16 million barrels in 1900.

In 2006, West Virginia produced about 200 billion cubic feet of natural gas and 1.6 million barrels of oil.

— BETTY JOYCE NASH

## FRESH FOOD

### More Shoppers Seek Local Flavors

Have you ever gotten to the grocery store only to realize that the fresh fruits and vegetables weren’t so fresh? That’s just one of many reasons people have become “locavores,” adopting a lifestyle of buying and eating locally grown produce.

Though the definition of “local” varies, it typically describes food grown within a radius of 50 to 150 miles.

These foods are becoming easier to find. In 1994, there



*The spinach growing in the foreground won't have far to go once it's ready to harvest — Trail's End Farm in Montpelier, Va., ships only within a 30-mile radius.*

were 1,755 farmers markets in the United States; by 2006, that number had reached 4,385. Ellwood Thompson’s Local Market in Richmond, Va., sells produce within 24 to 48 hours of harvest. Customers know its origin, and farmers aren’t forced to use as many preservatives since they ship locally.

Trail’s End Farm, owned and operated by Sherri Cantrell and her family, is located in Montpelier, Va. One of its biggest challenges is keeping up with demand. “If you grow it, you can sell it,” she says.

It’s hard to talk about eating locally without addressing the perception that it is better for the environment. While that’s a popular way of thinking, it’s not always true. A recent article by Carnegie Mellon University economists Christopher Weber and H. Scott Matthews found that 83 percent of carbon emissions associated with food are from the production phase, while transportation represents only 11 percent.

However, travel distance affects not only the environment but also food quality. Food may travel 1,500 miles before it lands on your dinner table, says Nancy Creamer of North Carolina State University. Buying locally may create jobs within the farming and food sectors, and keep potential revenue within a community.

At a 2007 Virginia Food Security Summit in Charlottesville, Kenneth Meter, president of the Crossroads Resource Center, reported that Virginians spend \$8.9 billion on food imported from outside the state. If the state was able to increase purchases from local farms by just 15 percent, Virginia farms could earn \$2.2 billion of new income.

Matt Benson, an economist with the Virginia Cooperative Extension, says the trend of buying and eating locally will continue, but its success hinges on creating systems that benefit both farmers and consumers. “If we could get area restaurants to buy from local farmers, that would be a start,” Benson says.

Though it’s difficult to name one specific reason eating and buying locally has become more popular, one thing is for sure: It’s hard to beat the freshness factor. With the rise of farmers markets, it’s becoming easier than ever to enjoy the “local flavor.”

— JULIA RALSTON FORNERIS

PHOTOGRAPHY: TRAIL'S END FARM