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Forest Products: Taking Stock

Wood Pellets: Growth Industry or House of Cards?

By Roy Anderson

Is the wood pellet industry in the US Southeast a house of cards, as suggested by the recent failure of one of the largest pellet plants in the world? Or is it a huge growth industry, as suggested by the recent announcement of plans for three new megaplants in the region?

Dixie Pellets, located in Selma, Alabama, had a designed production capacity of more than 500,000 tons per year. In a July 2009 *Wall Street Journal* article, it was featured as an example of the booming wood pellet industry. However, on September 1, 2009, Dixie Pellets' owners told their 70 employees not to return to work the next day. Shortly after that announcement, the company filed for Chapter 11 bankruptcy. There has been no indication from the company if or when it might reopen.

It was a shocking series of events, because generating power by co-firing pellets and coal, which is the market Dixie was serving, has been hailed as a solution for reducing carbon dioxide emissions and for meeting renewable energy goals. As a result, it appeared that pellet markets were strong and that the companies in this growth industry were poised for prosperity.

Although few have been willing to talk publicly about what went wrong at Dixie Pellets, it appears that poor planning and poor management are to blame for its demise.

For example, the company planned to use barges on the Alabama River to ship all of its pellets from the plant in Selma to the port in Mobile for shipment to market in Europe. Using the barges meant the freight cost per ton of pellets between the plant and the port would be very low. However, because water levels in the Alabama River are not controlled by

dams, as reported in Forest2Market's *Forest2Mill* newsletter, water levels during dry periods were too low to use the barges. Thus, the company found itself having to ship pellets by truck to Demopolis, Alabama, for loading onto barges on the Tombigbee River for shipment to Mobile. The extra shipping to Demopolis added unexpected costs.

In addition, *Wood Bioenergy* magazine reported that the plant was operating well below its planned production capacity, which led to higher per-unit production costs than planned. Another factor was that, since so many sawmills are taking lumber market-related shutdowns, Dixie Pellets could not procure enough mill residues (sawdust and shavings). As a result, the company had to source a larger than expected proportion of its feedstock directly from the forest. Apparently, Dixie had difficulty making pellets from this feedstock that met its customers' quality specifications. The quality problems led to one customer refusing to make a \$3 million dollar payment on a shipment of pellets. It appears that sudden loss of cash flow was the straw that broke the camel's back.

In contrast to the difficulties experienced at Dixie Pellets, three new very large southeastern United States pellet plants were recently announced: Magnolia BioPower, Phoenix Renewable Energy, and Green Circle Bioenergy.

Perhaps the most convincing of these announcements comes from Green Circle. According to president and chief executive officer Olaf Roed, the company's plant in Cottdale, Florida, which has been operating since May 2008, recently signed a new pellet supply contract with a customer in Europe. In conjunction with the signing of the contract, the plant will ramp up the pace of production to the plant's full design capacity of 500,000 metric tons per year. During the fall of 2009, the plant was producing pellets at a pace of about 430,000 metric tons per year on an annualized basis.

Green Circle also recently announced plans to build a new facility in either Mississippi or Alabama. According to Roed, the expansion plans are based on the demonstrated success of their Cottdale plant and their belief in continued market growth.

“In Europe, the market for industrial- grade pellets has been defined by legislation, but we also see opportunities for growth in North America and Asia,” he said.

The design of the new plant will mimic that of the existing plant—primarily a roundwood feedstock, 500,000-metric ton- per-year production capacity, the manufacture of industrial-grade pellets, and direct employment of about 75 people.

In Waynesville, Georgia, Magnolia BioPower is building a plant that when fully developed will produce more than 1 million tons of pellets per year and produce up to 30 megawatt-hours of renewable electrical power. John Swaan, a pellet industry veteran and former executive director of the Wood Pellet Association of Canada, will be Magnolia’s executive director and CEO. According to Swaan, “Magnolia BioPower’s location is ideal because it is a short distance from the port of Brunswick, [which will] allow for easy export of the plant’s annual production to the major markets in Europe.”

The Magnolia plant will be developed in three phases: phase I will be the construction of a 300,000-ton-per-year capacity plant that is scheduled for commissioning in April 2010. Phases II and III will each add another 300,000 tons of pellet production and 15 megawatt-hours of electrical production

capacity. Current plans are for phase III to be completed by April 2012. Swaan said that the phase III plant’s production will be directed to “the developing US market.”

In August 2009, Phoenix Renewable Energy broke ground on a 250,000-ton-per year capacity plant in Camden, Arkansas. The mill reportedly has a five-year contract to sell pellets to Europe.

Both Swaan and Roed alluded to selling some of their production to the domestic market. Historically, the US market could not consume the volume of pellets that will be produced by the megaplants. However, Akron, Ohio–based FirstEnergy Generation recently announced that it is converting its aging R.E. Burger power plant from 100 percent coal to a mix of coal and pellet fuels. The conversion will be completed by the end of 2012. When finished, the plant will produce 312 megawatts of power and consume 1.4 million tons of pellets annually. Similar cofiring projects are under development at Ontario Power Generation’s Atikokan plant on Lake Superior and Nanticoke plant on Lake Erie.

Despite the misfortune of Dixie Pellets, it appears that there is good reason to be optimistic about the future of the southeastern United States wood pellet industry. The developers of these three projects obviously think so.

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