

Pellet Fuel Opportunities

By Jennifer McCary



Not since the energy crisis of the late '70s has the pellet fuel industry seen such robust growth in demand. Although he doesn't have firm statistics, Don Kaiser, Executive Director at the Pellet Fuel Institute (PFI), can make an educated guess, backed by 25 years of serving the interests of U.S. pellet fuel and appliance manufacturers. PFI membership of late has more than doubled and Kaiser puts the number of production systems (new facilities or expansions) coming on line in the last couple of years in the neighborhood of 40. Several more potential producers are in various stages of development; some startups are projected later this year or early next.

Most pellet mills built in the last two decades were situated in the colder regions of the Midwest, Northwest and Northeast to replace home heating oil and cordwood heating systems. Demand for the alternative heating sources fell off considerably when oil prices were relatively low and some pellet plants had to close their doors. If and when oil prices dip again, it's possible that could happen again.

The new surge in demand is a little different. While soaring energy costs are again the driver, consumers today are far more "green conscious" than they were three decades ago. Green certified buildings, especially in commercial sectors, are reshaping design and new construction projects.

Thus, biomass alternatives are attractive for several reasons, two of which are that they're good for the environment and carbon-neutral. Pellet fuel is 92% cleaner in particulate emissions than cordwood, according to a recent New Zealand study cited by Jerry Brown, who heads the pellet marketing program at Valley Forest Wood Products, Marcell, Minn.

Biomass is a home-grown, renewable energy which can significantly reduce the country's dependence on uncertain foreign supplies. There is a stronger push from government and consumers to develop and invest in alternative energy sources to power electricity grids, heat homes, schools and office buildings and fuel the cars we drive.

Once consumers have made the investment and converted to a pellet heating system in their home or business, for example, it is less likely they would revert back to old heating sources as long as pellet fuel is readily available and cost-competitive.

Despite all that, a very large part of the current pellet surge is unprecedented offshore demand. Clean energy mandates under the Kyoto Protocol mean that power plants burning fossil fuels must mix in a percentage of non-fossil fuels so as to make their operations more carbon-neutral. Electric utilities in the European Union in particular are turning to the U.S. and Canada for large chunks of pellet supplies. Most of the much larger plants already announced, and those yet to come, especially on the Atlantic and Gulf coasts, are products of this demand. Some of these are being built with foreign capital. The irony is that while the U.S. seeks to reduce its foreign energy dependence, it is shipping, or will be shipping, a portion of its woody biomass component overseas.

The largest domestic demand is in residential heating. But there is also substantial opportunity in commercial installations such as schools, government buildings, grocery stores, power plants and other businesses.

Logger Connection

Last time oil prices shot through the roof, the logging industry was just coming into its own. Mechanization promised significant productivity gains and traditional wood markets were expanding.

Not so this time. At many locations, loggers and others in the wood supply chain have been impacted by industry restructuring and downsizing, global trade, record high operating costs and the housing freefall. In the last few years many players have seen their markets disappear with one mill closure after another. The owner of Ted Frank Forest Products in Crandon, Wis. estimates the loss of markets in the Lake States and southeastern Canada at roughly 1.6 million cords annually. Pat Curran, co-owner of Seaway Timber Harvesting, Inc. in Massena, NY, saw markets shrink 41% three years ago when the Domtar mill closed near his home base.

Opportunities in wood pellets have caught the attention of a few loggers as a way to diversify and keep their supply businesses viable. The idea seems to have caught on fastest in the Lake States where there have been several OSB and pulp mill closings in recent years.

Loggers and landowners these days welcome any type of new market for lower grade trees, but the

pulp community largely views pellet plants, power plants and wood ethanol plants as competition. Overall, the pulp sector's consumption of fiber has dropped more than 10% across the last dozen years. The pulp establishment has always controlled the lower grade timber market but that may be about to change in select areas. (See Timberlines, page 4).

Interestingly, all loggers contacted for this report plan on marketing their pellet production domestically. Some do have export contacts to fall back on if domestic demand doesn't meet expectations.

Lake States

Jerry and Tink Birchem of Gilbert, Minn. spearheaded logger efforts to fund and develop pellet fuel plants in their state. They now own an interest in two pellet mill enterprises—Valley Forest Wood Products (VFWP) in Marcell, Minn. and Mountain Timber Wood Products (MTWP) in Mountain Iron.

“For eight years now I've been looking at value added for the logging business,” states the tenacious industry advocate Tink Birchem. “We saw a while back that you have to do something more to make it in logging.” The Birmehs looked at wood pellets five years ago but at that time felt it wasn't feasible because the market wasn't there. Noting a rebound in pellet demand two years ago, the couple began in earnest to develop a business plan, solicit investment partners and secure grant funding to build a 100,000 tons-per-year pellet mill in Mountain Iron. There are six logger co-owners as well as outside investors.

Property has been purchased, rail service is in place and air permits are expected to be finalized this month, according to Bircherm. MTWP is expected to be up and running by late fall.

While waiting for air permits for that project, the opportunity came up to purchase an existing 'fixer upper' pellet mill in Marcell due to the death of the owner. Last August, another logger group joined them in purchasing that facility.

The new owners ran the mill long enough to build a winter inventory for existing customer contracts, then shut it down for a complete refurbishing and installation of two Sproutt pelletizers. VFWP started up again in December and is expected to produce 50,000 tons-per-year.

"The last couple of years there has been a pretty big downturn in Wisconsin's pulp industry," says logger Mike Severson, who partnered with fellow loggers Rich Good and Terry Priem to form Great Lakes Renewable Energy, (GLRE) at Rice Lake, Wis. last year. "Our markets have gone overseas or just disappeared altogether, so we're thinking of ways to utilize the pulpwood that we have so much of here. We looked at a few options and saw that pellet fuel was one of the fastest growing industries. There is not enough product to meet demand."

Wisconsin's Office of Energy Independence and Dept. of Agriculture, Trade and Consumer Protection recently launched an energy independence initiative backed by a combined \$40 million budget to fund grants, low interest loans, venture capital and research in developing biomass potential. The state estimates it has a potential excess biomass reserve of almost 15 million tons.

GLRE has secured two grants in the amount of \$290,000 and \$25,000 to assist with development of the projected \$6 million pellet fuel facility in Hayward, Wis., which is scheduled to come on line in June or July. Initial planned capacity is 36,000 tons annually with two Munch pellet mills and room to add two more pelletizers in the future.

Ted Frank has also been working with a group of Wisconsin loggers to organize Forest Source LLC. It has been an uphill battle due to investor challenges that brought things to a standstill for the last few months. The logger recently received word from his lawyer that an agreement may have been reached so that the project can move forward. He is hopeful the plant can be up and running for the winter '08 season.

Last spring, a group of Michigan Assn. of Timbermen members organized Michigan Wood Energy LLC to pursue development of wood pellet production. Two plant sites have been identified but a \$10 million investment would be required to proceed. The proposal targets capacity at 100,000 tons-per-year for each facility. One plant would be in the UP at Newberry and the other at White Cloud. Feasibility studies are currently underway.

New York

In New York State, Seaway Renewable Energy (SRE) in Massena will have a planned annual capacity of 100,000 tons annually and is slated to start up next fall. The Curran brothers—Pat, Tim and Lee—owners of Seaway Timber Harvesting, operate four whole tree chipping sides to produce and truck 300,000 tons of chips to mills in New York, Ontario and Quebec. Three years ago, the company's nearest fiber outlet, 30 minutes away, shut down.

Today, their closest haul is a three hour drive from Massena.

For a while there was talk of a new OSB plant being built in Odgensburg, NY, which is only 30 minutes from the Currans. That project was shelved by the current OSB market. “We really wanted to see that happen, but with market conditions as such, they’ve pulled back and we really can’t wait,” states Pat Curran. “We have to try something. I don’t think it’s the worst decision we’ve ever made and I am hoping it is one of our best.”

Having run into a stone wall on other project startups in his community, Curran elected to site the \$10 million plant at two vacant buildings in the county’s industrial park. “By going into the industrial park, I ended up with lots of support and we were able to acquire the permits much faster than expected,” he says. “It’s not my idea of the best place to build this project. But on the other hand, you may miss the whole opportunity if you get tied up in litigation a year or two to figure out whether you can build it.”

SRE is slated for a fall startup and will run three pelletizers with a capacity of 100,000 tons-per-year. “What we’re trying to do is revitalize our own business plus create markets for other loggers and build something right now in our home town.” Curran says the project will create added volume for his market area. Seaway Timber Harvesting, which employs 80-plus, will continue to supply its existing markets at the same level they are today. He expects the project will create 50 new jobs, which includes the addition of another logging crew, if needed.

“My goal, really, is to make sure I have employment for all the people that work for me presently and to

create more employment. It's all about your people.”

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