



MADISON'S TIMBER PREVIEW

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Freshly returned from the Future Energy Conference in Seattle, WA, *Madison's* was delighted this week to see a flurry of announcements about new biomass fuel investments.

Sustainable wood pellets and processed biomass fuel supplier Enviva, out of Bethesda, MD, announced November 16 that it has secured US\$120 million in borrowings from Barclays Bank, Goldman Sachs, and Royal Bank of Canada, to advance construction and expansion plans at its manufacturing base in the US. With the loan, Enviva will continue construction of two new pellet mills with 500,000 metric ton a year capacity in Virginia and North Carolina. The company will also enhance storage capacity at its deep-water port terminal in Chesapeake, Virginia to approximately 100,000 metric tons, thereby extending its operating footprint in the mid-Atlantic, Mississippi, and Alabama.

Scheduled to complete in 2013, Enviva plans to fulfill existing renewable fuels long-term supply agreements with the combined 1.72 million tons of annual capacity.

Next is Enfield, NS's, Ledwidge Lumber, which announced Monday the company is looking to borrow almost \$30 million to start making power.

Much hangs on Nova Scotia's planned purchase of Resolute Forest Products's massive woodlands, because Ledwidge would need a guaranteed fuel supply to gain regulatory approval for the proposed four-megawatt biomass facility. The company primarily makes lumber and sells pulp chips to Northern Pulp Nova Scotia, and sawdust to Shaw Resources to make residential wood-stove pellets. In addition, Ledwidge Lumber sells bark to fuel the 24-megawatt Brooklyn Power facility which Resolute now controls.

"Primarily, we would be selling on to the grid with green power and purchasing power back from Nova Scotia Power," Doug Ledwidge, the company's president and general manager, said to the Chronicle Herald Monday. "It's a new revenue source to help pay the power bill."

The company burns its own shavings in two boilers to heat its dry kilns and plant. In an effort to reduce its power bills, it is examining a hydraulic system that stacks and sorts lumber that can throttle back when it is not in high use, Ledwidge said.

"We're in a good corridor, we're close to metro, we do have a source of the product made right on site, so it would upgrade the product value and, of course, it would make the business all much more viable."

The company sends nine to 12 containers a month to Israel that each carry about 40 cubic metres of softwood — primarily spruce and fir. A guaranteed source of wood would help move the project forward, he said. Conversely, Conifex Timber, out of Vancouver, BC, has suspended a bioenergy project with a pricetag of over \$60 million, at the company's Mackenzie, BC, mill complex after a financial partnership fell through, the company announced Wednesday. Conifex says it's continuing with essential engineering and equipment procurement activities but will temporarily suspend installation and construction activities as it secures long-term financing. The project is about 30 per cent complete and Chief Financial Officer Yuri Lewis insists to HQ Prince George that Conifex remains fully committed to completing it. The company has already inked a deal with BC Hydro to supply power once the system is up and running.

Elsewhere, in early November KiOR, a next-generation renewable fuels company based in Pasadena, TX, announced it had produced a crude oil made from wood chips, and the opening of its first commercial-scale

biomass fuel plant. That would be a first for the cellulosic biofuel sector. The company said it expects to refine it into gasoline and diesel and sell it commercially later this month. The facility, located in Columbus, MS, at full capacity will take in 500 tons of biomass a day and transform it into 40,000 gallons a day of gasoline and diesel that could help companies meet their renewable energy goals or mandates. KiOR's next plants may be at least three times as large.

The company's technology uses catalysts to vaporize biomass, removing the oxygen, and condensing the remainder into oil that can be refined into cellulosic gasoline, diesel and jet fuel. KiOR shreds the wood, mainly Southern yellow pine, into small particles and mixes it with a powdered catalyst under very mild pressure, about 25 pounds per square inch. For the plant to be a commercial success, it will have to achieve steady operations and a high yield of product per ton of biomass. The plant aims to turn out 13 million gallons of fuel a year and has already lined up customers, it said.

Silicon Valley powerhouse Khosla Ventures owns more than half of the five-year-old company.

The plant needs certification from the Environmental Protection Agency before it can generate renewable energy credits for gasoline, which it can then sell to refineries and others that are obligated to use renewable fuel. Those sales would help offset its production costs.

Speaking of which, the Environmental Protection Agency in September increased from 1 billion gallons to 1.28 billion gallons a target volume for biomass-based diesel for 2013 under the Renewable Fuel Standard. Not unexpectedly, the American Fuel and Petrochemical Manufacturers (AFPM) group Wednesday filed a petition calling on the EPA to reconsider the 2013 mandate.

"EPA's own data estimates that the cost of increasing the biomass-based diesel mandate will add between \$253 million and \$381 million to consumers' transportation fuel bill in 2013," said AFPM President Charles Drevna. "The U.S. economy is still struggling and this increase will hurt the millions who rely on transportation fuels."

"The EPA was well aware of all of the issues AFPM has raised as it made its independent analysis and, ultimately, the agency made the right decision," Anne Steckel, vice president of federal affairs for the National Biodiesel Board, told Biodiesel Magazine Wednesday.

As *Madison's* was going to press Friday morning, another new project was announced:

Ontario Power Generation awarded two contracts for supplying biomass wood pellets to the new Atikokan Generation Station in northwestern Ontario. Atikokan Renewable Fuels and Resolute Forest Products will each supply 45,000 tonnes of pellets annually.

Over 150 new jobs will be created through the wood pellet supply for the Atikokan Generating Station. With over 200 MW of generating capacity, Atikokan Generating Station will be the largest capacity 100 per cent biomass fuelled plant in North America and will generate renewable, dispatchable, peak capacity power.

Resolute Forest Products plans to build an industrial wood pellet plant in Thunder Bay, ON, that will turn residual material into a source of renewable energy. Construction of the plant is expected to begin shortly and should be completed in 2014. The company will invest about \$10 million into the plant and hire 24 new employees. The new plant will be adjacent to its sawmill in Thunder Bay, ON.

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