

Boiler conversion cut GHG emissions 35% in 2010: Kruger



Kruger's conversion to biomass gasification boilers reduced its GHG emissions by 35 per cent in 2010, the company says.

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It's been just over a year since Kruger Products started turning wood waste into fuel at its New Westminster mill, and the company says it is encouraged by the environmental and economic results.

In 2010 the plant, which makes Purex and Scotties tissues, saw a 35 per cent decrease in greenhouse gas emissions—the equivalent of taking 3,500 cars off the road—thanks to the introduction of two biomass gasification boilers from Vancouver firm Nexterra Energy. The system converts locally sourced wood residue into a syngas, which is fired directly into a boiler in place of natural gas.

The mill still has three natural gas boilers, but intends to add a third biomass gasifier in the future.

"We're looking forward to the levels that we'll hit in 2011," said Chuck Stewart, general manager of the New West mill. He anticipates a 50 per cent decrease in greenhouse gas emissions, or 24,000 tons of carbon equivalent, as the system reaches optimization this year.

Kruger has the first biomass gasification plant in Canada, made possible in part by a \$1.5 million provincial government grant from its Innovations Clean Energy Fund.

Stewart expects others in the pulp and paper industry to follow suit, not just because of the environmental benefit.

"It's certainly cheaper," he said, explaining the company's fuel costs are expected to drop by between \$1 million and \$3 million annually.

The switch to wood fuel was initially met with criticism from some air quality defenders who said industrial wood burning creates more smoke, produces more particulate emissions, and uses contaminated fuel.

But Stewart assures the mill burns only "clean wood waste" comprising construction debris, land clearings, tree trimmings—"typically all that stuff would otherwise find its way into a landfill."

Forty per cent of the fuel comes from wood processing plants like sawmills or furniture manufacturers.

Stewart said the older "beehive burners" and "hog fuel boilers" that used to line the Fraser River have a bad rap, but today's technology is different and Kruger operates well within Metro Vancouver's permitted fine particulate emission levels.

The biomass gasification system is part of Kruger's Sustainability 2015 campaign, launched last November to reduce the company's environmental footprint.