

Sawmill to build plant to generate electricity

Seneca Sawmill will begin construction of a wood-fired cogeneration plant in the fall

BY DIANE DIETZ

In a bold move, the Seneca Sawmill Co. of Eugene is building a \$45 million wood-fired power plant that will generate enough electricity to light up 13,000 houses.

Construction will begin in October and the so-called cogeneration plant will come on line a year later — under the watch of Jody Jones, managing partner in the business started by her father, Aaron, 56 years ago.

Her decision to build created a stir in an industry that's doing little more than quietly licking its recession-caused wounds.

“Wow, somebody's actually going to start construction, huh?” said Diana Enright, assistant director of the Oregon Energy Department, who oversees renewable energy.

The company can go ahead because it has a strong balance sheet resting on its founder's conservative philosophy — be prepared to survive the worst of times and the good times will take care of themselves, sawmill general manager Richard Re said.

The proposed 18.8-megawatt cogeneration plant is expected to produce more than twice the electricity needed to power all three milling operations at Seneca's plant along Highway 99 near the Airport Road intersection — leaving plenty to sell at a profit to a local or regional utility.

The technology isn't new. A Springfield pulp plant now owned by International Paper has had a 51 megawatt cogeneration operation since 1976, although its fuels and methods are different from what Seneca proposes.

Seneca's plant would be the sixth to come on line within five years that burns wood wastes — bark, shavings, sawdust — to generate electricity. Burning the woody debris heats boilers, which create steam that powers turbines and generates electricity.

The newer plants include those at Freres Lumber Co. in Lyons, Douglas County Forest Products in Wilbur, Rough & Ready Lumber in Cave Junction, and Frank Lumber in Mill City.

Cogeneration is “having a resurgence with all the emphasis on renewables and the high cost of fossil fuels,” said Bill Carlson, a Redding-based consultant who is advising Seneca.

The wood-fired technology is promoted — and funded — by federal and state tax incentives. Unlike the new solar and wind plants, cogeneration is not dependent on atmospheric conditions. Operators determine when and how much to run the plants.

Oregon is a hotbed for development of cogeneration and other biomass technologies that involve turning trees, brush, straw and other organic materials into electricity.

The International Biomass Conference and Expo that's expected to draw 1,200 people from around the world will be in Portland in late April.

Seneca has long been interested in the technology: The company has examined the feasibility of building a cogeneration plant every two years for a dozen years, Re said. Seneca management decided to go forward this year because of a combination of factors.

Two years ago, the Oregon Legislature adopted a renewable energy portfolio standard that requires large utilities to get 25 percent of the power they sell to retail customers from renewable sources.

The state and federal governments have renewed or improved tax credits and other incentives that make it easier for companies to pursue renewable energy projects. The Seneca project is likely to qualify for a \$10 million state tax credit for construction and additional federal credits based on the energy it generates.

Also, it's a good idea to reduce U.S. dependence on Middle East oil, Re said. "I can't imagine who wouldn't think that."

The Seneca project will include erecting a wood fuel storage building that's a little smaller than a football field, a series of covered conveyor belts, plus a building for the boiler and turbines. Wellons Inc. of Sherwood was tapped to build the boiler and power plant.

When complete, 11 new employees will be added to Seneca's 250-employee work force to run the new plant. About 90 people will be employed to build the new plant, according to company estimates.

The Seneca plant will not be the biggest of the recently built cogeneration plants. A Roseburg Forest Products plant, for example, is 35 megawatts.

But Seneca was smart to size its plant to fit the amount of waste wood fuel that it could generate from its own sawmill operations and from logging wastes from its 165,000 acres of forest land in Lane and Douglas counties, Carlson said.

"You don't want to outgrow your fuel supply. You don't want to be vulnerable to the vagaries of the market," he said.

The plant will release a little more than 10 tons of particulate pollution a year, so Seneca will need a discharge permit from the Lane Regional Air Protection Agency.

The key factors in the amount of pollution produced are what the plant burns for fuel and whether adequate controls are employed to keep particulates from leaving the smokestack.

The air agency will do its initial examination of Seneca's plans over the next two months and the agency welcomes comments and questions from the public, said Sandra Lopez, air agency operations manager.

The company plans to install an electrostatic precipitator — which puts a charge on particles that make them stick to a plate — to take as much soot out of the air as possible before it's released. The technology can remove 99.9 percent of the particulate, according to the U.S. Environmental Protection Agency.

The standard precipitator has two plates to collect soot, but the Seneca system will double that number to make the vented air cleaner still.

"The more you have, the more cost it is; they must really want to get their particulate emissions down," Lopez said.

The goal is to be the best, said Dale Riddle, a vice president and the corporate attorney.

"There will be no cleaner cogeneration plant in the western United States," he said. "We'll pay the extra money. We'll do the extra step."

In the balance, the cogeneration plant could be beneficial to the environment — if the company collects limbs and tree tops it would otherwise burn in slash heaps in the forest, some environmentalists say.

Also, because the company will no longer haul away wastes it produces at the mill, it will reduce truck traffic by about two thirds, said Todd Payne, the Seneca project manager.

A cogeneration system may also be a positive if it replaces electricity on the grid that comes from less Earth-friendly sources such as the coal-fired plant at Boardman in northern Oregon.

The company has yet to nail down what utility will buy its power. The Blachley-Lane Electric Cooperative, the Eugene Water & Electric Board and the Bonneville Power Administration all have transmission lines on or near the Seneca property.

And best of all from the business perspective: The variables can change the picture, but Seneca should eventually save enough in reduced energy costs to pay for the new plant.

"In something less than 10 years," Re said.

"We're hoping," Riddle added.