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Sawdust will supplement coal as source of Springs electricity

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The piles of coal at Martin Drake Power Plant, so large they are moved with a bulldozer the size of a house, will soon be mixed with something clean and renewable - sawdust.

Starting next week, Colorado Springs Utilities will burn 25 to 50 tons of sawdust a week at the downtown coal-fired plant, the utility's first major foray into the use of renewable-energy biomass.

It's a small start, but officials say it is the first of two phases, and by 2011, Utilities expects to replace 15 percent of the plant's coal needs with biomass.

"We're putting to beneficial use a product that has been wasted and put in landfills," said Utilities Chief Executive Officer Jerry Forte during a media tour of the plant Wednesday. "It's a local product we are actually using, as opposed to products in Wyoming."

Utilities has been experimenting with biomass at the plant since 2006, as a way to meet new renewable-energy standards in a city that receives 70 percent of its electricity from coal. In April, the Colorado Department of Public Health and Environment approved the regular burning of sawdust.

Sawdust will be mixed with coal - 1 percent sawdust to 99 percent coal - in a short-term program. By 2011, Utilities plans a $10 million project to add equipment at the plant to pulverize wood chips so they can be burned, which would reduce the need for 75,000 tons of coal a year at Drake. The plant gets 1 million tons of coal annually from Wyoming and northwestern Colorado.

Tests at Drake have shown sawdust can be used for power, and Utilities recently received word it will get a $250,000 grant from the U.S. Department of Agriculture for the project.

Officials have applied for a $5 million grant from the U.S. Department of Energy to defray half the cost of the $10 million project.

"It's an awesome project. It's the right thing to be doing for the community, for the environment," said Terry Meikle, Utilities biomass project manager.

Compared with coal, woody biomass has 2 percent less nitrogen oxide, 5 percent less sulfur dioxide and an ash content of just 0.1 percent, compared with 12 percent for Wyoming coal, Meikle said.

Utilities has yet to identify all the sources for wood. Meikle has a list of 70 possibilities, including pallets at Fort Carson, trees cut in the national forest in Teller County for fire-risk reduction and beetle kill, and waste wood from local companies.

The wood must be chipped before reaching the plant, and to make it economical, it must come from within 75 miles, though Utilities has been in talks with a company in Kremmling to ship wood from trees killed by bark beetles in north-central Colorado, where the insect epidemic is widespread, Meikle said.

Utilities officials say they will be able to generate 3 percent of the city's power by burning wood in 2011.

Perhaps most importantly, burning woody biomass could help the city avoid costly new regulations, since the nation is heading toward the regulation of carbon emissions from coal-burning plants, while the new fuel will be carbon neutral, Forte said.