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## Dead Trees Could Heat Up Railyard

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The Santa Fe Railyard Community Corporation, in seeking to fulfill its charter to be environmentally friendly and promote the local economy, is considering using an innovative approach to heat buildings on its 50-acre downtown property using dead trees.

That's right, dead trees.

Engineers say the idea is far more progressive than retro.

Partnering with Santa Fe-based Local Energy, the Santa Fe Railyard Community Corporation hopes to develop a sustainable, renewable energy source based on biomass. They want to reap the financial and environmental benefits many in Europe have discovered.

"I think it is an opportunity to show the benefits of forward thinking," said Lleta Scoggins, executive director of the nonprofit railyard group, adding the project is "very close to happening."

Steve Robinson, president of the group, said the notion of a biomass-fired district heating system "fits exactly the mission we have."

The idea, developed by the nonprofit group Local Energy—founded by Mark Sardella and 2002 Green Party gubernatorial candidate David Bacon—is to design a biomass-fired boiler that heats water in pipes that deliver a steady stream of radiative heat to businesses and homes.

As more homes and businesses decide to join, more distributive boilers can be added to the system, which Sardella said can be as much as 90 percent efficient.

Local Energy has been able to turn this seemingly pie-in-the-sky idea into something more real through a \$1.3 million grant from the U.S. Agriculture and Energy departments. The money will be used over the next 18 months to study the feasibility of building a demonstration project in Santa Fe, possibly at the railyard, where one or two boilers could generate about one megawatt of heat.

Sardella said Local Energy plans to apply for another grant in the summer that will be used to build the project.

A team of engineers from Austria is visiting Santa Fe to design the system to match not only the railyard and its 425,000 square feet of proposed home and business space, but possibly the rest of Santa Fe as well.

The biomass would come from local forests, which Sardella said can be sustainably harvested to supply the vegetative material necessary to fuel the project.

He estimates it would take about 15,000 to 20,000 tons of biomass to heat downtown Santa Fe every year, or enough trees to cover about 2,000 acres.

Finding that much wood shouldn't be a problem for the next few years, given the bark beetle infestation that is killing area piñon, Sardella said. Last year, more than 14,000 tons of dead trees were dropped off at the Santa Fe County's Caja Del Rio landfill, where it was chipped and left to decay.

If people left their trees in place, as many experts recommend, Sardella said the national forest around Santa Fe can provide more than enough trees. He said the Española District of the Santa Fe National Forest aims to thin between 10,000 and 20,000 acres of overgrown forests a year.

He said a biomass-powered Santa Fe would cut emissions of the greenhouse gas carbon dioxide by as much as 75 percent and just about eliminate emissions of other harmful pollutants.

Though the process is rarely used in the United States, Ingwald Obernberger, executive director of the Austrian BIOS Bioenergiesysteme, said as much as 20 percent of Austria's heat is produced through biomass heating systems.

Sardella said studies have shown that anywhere from 70 percent to 90 percent of money spent on heating leaves the local community, a fate he said could be avoided by using a completely locally operated biomass heating system.

Part of the feasibility study includes an in-depth economic analysis of the biomass project.

Concerned about the idea that biomass is a "free lunch" with no downside, local environmentalist John Horning, executive director of Forest Guardians, said he intends to take a closer look at the project's assumptions.

"All the good feelings about biomass tend to brush aside some of the deep questions that this is a viable proposal," he said.

Skeptical that New Mexico's forests can be sustainably harvested to the degree necessary, Horning said some thinning is necessary, but said much of the thinned material should be left behind to help rebuild depleted soils in the forests.

