

City buildings rely on renewable power sources

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Have you noticed the air smelling a little cleaner around Santa Cruz these days?

It's not just the late season rain. The Waste Water Treatment Facility near Neary Lagoon is now pumping out clean power and sweeter-smelling emissions.

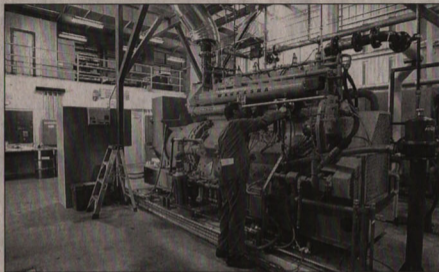
SANTA CRUZ Saturday at 10 a.m. the city will invite the public to attend a celebration to mark the installation of a larger photovoltaic array to generate electricity, generation of power from methane and natural gas, and improved odor control. The ceremony will include refreshments, remarks from Mayor Emily Reilly and a tour of the plant at 110 California St.

With the addition of these new power sources, the city is using almost 50 percent renewable power for its municipal buildings.

Most of the power comes from cogeneration systems at the facility and at the landfill, which burn gas to generate heat and electricity. The cogeneration systems may burn methane gas from decomposing garbage and sewage sludge, or natural gas piped in from PG&E; only methane is considered in the renewable power calculation above.

"We're looking at the potential of saving about \$20,000 a month, and that's a significant savings for us," said plant superintendent Dan Seidel of the recent cogeneration upgrade. "That's a quarter of a million dollars a year."

The city and county paid \$1.3 million



Dan Coyro/Sentinel

A worker tinkers with cogeneration equipment at the sewage treatment plant in Santa Cruz. Cogeneration and solar production give city buildings half the power they need.

for the upgrade. The system is expected to pay for itself in less than five years.

On the other hand, the new solar system, installed by Renewable Energy Concepts in Los Osos, is expected to save the city about \$15,000 a year and will pay for itself in about 13 years. The system cost \$385,115, but after subtracting a rebate from the state Public Utilities Commission, the city and county paid \$194,212.

The solar system is the second largest operating array in the county — at 50

kilowatts, it surpasses solar pioneer Ken Adelman's 30 kilowatt system on his home in Corralitos.

A 57.6 kilowatt array was installed by Solar Technologies of Santa Cruz this month at the West Marine boating supply store on 17th Avenue in Santa Cruz.

Why spend the money — almost \$200,000 — on a solar array when the energy it produces is so much less than that from cogeneration?

"You get much more bang for the buck

with the (cogeneration system)," said longtime Santa Cruz solar advocate Joe Jordan. "(But to bring down the cost of solar energy,) you need these early adopters who kind of go out on a limb and do something that's not strictly economical in the bean counter sense because it's the right thing to do environmentally."

Residents near the Waste Water Treatment Facility have additional environmental concerns.

"About six years ago odor complaints seemed to become an overriding issue around the treatment plant," said Steve Wolfman, a civil engineer at the facility.

On the basis of a study, new carbon filters were added to the existing bleach treatment to scrub smells from much of the foul air leaving the plant. The project cost the city \$1.5 million, with no grant funding, and has been operating since late fall.

It seems to be working. There have been no odor complaints since the new system was installed, according to superintendent Seidel.

The solar and cogeneration systems won the public works Project of the Year award for 2003 in Monterey Bay Area. Grant funding through the California Energy Commission and the California Public Utilities Commission made building the systems possible, said Mary Arman, an analyst with the city's Public Works Department.

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