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Future green hub in city

Plans call for turning Makiki park building into model of sustainability

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As part of a push to promote environmental sustainability in the urban core, the city plans to convert an old Makiki building into a model for energy efficiency and a hub for learning about eco-friendly technologies.

The building at Makiki District Park will feature a "green roof," solar panels and a wind turbine, along with a place for schoolchildren to learn about energy conservation.

By the end of the year, the city hopes to have converted the recently renovated building into a showcase for the newest energy-saving technologies. Within a year, they hope to be inviting busloads of kids to the center to see a host of exhibits and working projects.

The center is being billed as a first step in the massive effort to transform the urban environment in Honolulu from an energy-draining concrete jungle into an expanse of more eco-friendly buildings.

The city also sees the center, a first for the city, as a way to test emerging energy-saving technologies. The different systems installed in the building will be monitored, and the data collected will be used to figure out the energy- and cost-saving possibilities for other buildings.

That data could have immediate applications, officials say, as residents and businesses search for simple ways to reduce their carbon footprint and slash their electricity bills.

"As energy costs go up, people are looking for a way to get out from under that," said Keith Rollman, who is on the mayor's Energy and Sustainability Task Force and is helping to start up the center.

"It (the building) will be a constant work in progress."

The city has budgeted $305,000 in start-up costs for the Makiki Sustainability Center in its fiscal year 2009 budget, and also plans to seek grants and partnerships to cover the costs of installing energy-saving technologies and bringing in personnel to

man the center.

The city has partnered with the University of Hawai'i's Sea Grant College program, which runs the education program at Hanauma Bay, to kick off the public outreach portion of the project and for the expertise to oversee and monitor the energy-saving systems.

Stephen Meder, director of the Center for Smart Building and Community Design at the Sea Grant College, said the Makiki center has a slew of possibilities — from a test bed for new technologies to a learning center for architects and engineers interested in incorporating energy-saving concepts into new or existing buildings.

"It's got so much potential," he said, adding he hopes to get graduate students into the center to run tests and monitor the progress of the energy-saving systems.

"This could be a venue of focus on how some of these solutions could be implemented," Meder said.

The city recently finished a $2 million project to renovate the Makiki Community Library and the future home of the sustainability center. The first floor of the building will continue to house the library. The center will be on the second and third floors.

Rollman said the building was constructed in the 1940s or '50s.

It used to house a research station for pineapple production.

Early city plans envision exhibit and lecture space and a community meeting room on the second floor of the building. The third floor will have computers and a demonstration area.

On a large portion of the roof, the city will put in plants — for the "green roof" concept — that deflect heat and decrease runoff. The roof will also house solar panels and a test windmill for energy generation.

The center is part of the city's recently released Sustainability Plan, which also includes increasing recycling, decreasing the energy usage of city buildings and using technology to identify ways to conserve.

City officials see the Makiki center eventually being linked with Hanauma Bay and the Hawai'i Nature Center, each one meant to underline the importance of environmentally friendly practices in three vital areas — the ocean, the forests and the urban core.