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THEY FIND IT EASY BEING GREEN

Maharishi University aims to go off the grid with eco-friendly buildings

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REGISTER AMES BUREAU

Fairfield, Ia. — Listen closely and you can hear silence in Stacey Hurlin's Jefferson County home.

The blast of the heater is not heard as often or as intense as in a conventional home. Instead, she relies on super-insulated walls and ceiling and windows that throw sunlight and heat deep into her home.

"I've never slept so deeply as I have in this little house," said Hurlin, who is the director of a nonprofit art organization here. "It is a silent little cave."

Hurlin lives in a development called Abundance Ecovillage, where homes use energy in nonconventional ways. Many homeowners pay no monthly bills to an electric company. Instead, they have invested up front in solar, wind and other technologies for saving or creating energy.

Not far from Ecovillage, the Maharishi University of Management is following suit with plans to complete several projects in the next few years that create their own energy.

The university's efforts are being watched closely in Iowa as other institutions of higher learning look for strategies to reduce energy costs.

Utility expenditures at Iowa State University, the University of Iowa and University of Northem Iowa have increased by about $20.5 million, or nearly 30 percent, in the last five years, while total square footage of buildings at the three universities has increased by only 4.7 percent during that time.

"We should be managing our resources better; we should be getting more for less," said Roger Graden, a senior project manager in facility planning and management at Iowa State. "How do we do that? We could build better buildings. Buildings consume 40 percent of all energy consumed in the United States. If we can have an impact on a building performance, we can really impact the energy consumption in the United States."

Joe Loyd carries one of the windows that will cover the open wall next to him in the new student center at Maharishi University of Management in Fairfield on Friday. Dozens of high-efficiency windows in the structure will minimize the need for electric lighting.

HARRY BAUMERT/REGISTER

Stacey Hurlin sits in the sun room of her home in Adundance Ecovillage, a housing development north of Fairfield, on Friday. In addition to its passive solar design, the home is heavily insulated and uses wind energy.

Maharishi University of Management

MEDITATION: The university is known for requiring its students to engage in Transcendental Meditation, which the university says dissolves stress, optimizes brain functioning and improves learning ability.

CLASSES: Students take one course at a time, which university officials say eliminates the stress of homework and exams in several subjects at once.

FOOD: Vegetarian meals made with produce grown locally are served daily.

At ISU in Ames, several projects are under way that use "green technology" — the buzz words used to describe environmentally friendly building techniques.

Those incude the Morrill Hall renovation, which will recycle almost 100 percent of its construction waste, trash that usually goes to the landfill, among other environmentally friendly efforts.

In Fairfield, one building at Maharishi University in particular is expected to make a statement. It's the Sustainable Living Center for sustainable living and environmental studies students. The facility is expected to be completely off the conventional electricity grid, creating instead its own power with solar, wind and geothermal activity.

"I think we are on the forefront in Iowa," said Jonathan Lipman, director of the Institute for Maharishi Vedic Architecture, at the Maharishi University of Management.

"There is, to my knowledge, no other university attempt to build a classroom off the grid."

Project organizers hope that the building, with an expected construction start next May, inspires others to follow.

"That's one of the purposes of the building — to set an example, to be a model building, to demonstrate what's possible," said David Fisher, director of the Sustainable Living degree program at Maharishi.

In addition to the Sustainable Living Center, the university is nearing completion of the $7.2 million Argiro Student Center, which relies heavily on strategic placement of windows to provide light for the 50,000-square-foot building. Leaders are also planning three major residence projects.

Lipman said these types of buildings can cost as much as 20 percent more at the outset. The costs could be mitigated by careful planning, he said, such as installing windows that provide enough light to reduce light use, or designing a building so air-conditioners are used less.

"I think that building sustainable is almost universally recognized as imperative," he said. "Many universities around the country are finding that students and faculty are demanding this."

Iowa universities eye eco-friendly buildings to reduce energy costs

Above — Crews install bricks Friday on the east facade of the new Argiro Student Center being built at the Maharishi University of Management in Fairfield. The structure includes dozens of high-efficiency windows to minimize use of electric lighting, as well as other energy-saving technologies.

Left — Kevin Hopf checks an array of solar tubes that he installed on a home in Abundance Ecovillage. The tubes provide much of the home's hot water.

Saving energy on campus

Maharishi University in Fairfield is establishing itself as a leader in sustainable living architecture among Iowa's institutions of higher learning. The university will use environmentally friendly construction techniques. One building will create all of its own electricity by solar, wind and geothermal activity.

ARGIRO STUDENT CENTER

1. Triangle windows: These high places, triangle-shaped windows will flood the building with sunlight. They throw light deep into the building.

2. Eastern exposure: Buildings in the Vedic tradition face the east, because it's thought that the energy the sun produces in the morning is most nourishing.

SUSTAINABLE LIVING CENTER

1. Flat roof: Flat roofs are better for structures that use the sun for lighting, because the light is closer to the floor, allowing greater intensity of light

2. Monitor: This part of the building has glass facing south and west, which brings light deep into the center of the building.

3. High windows: High windows are installed on the south side of the building. The higher the windows, the better light flows into a room.

4. Veranda: Provides shade from the midday light and blocks direct sunlight from the east and the west, except during sunrise and sunset.

5. Solar panels: Generate a portion of the electricity the buillding will use.

Source: Maharishi University of Management

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