

Hundredfold is sustained with conservation, efficiency measures

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IN EARLY JUNE, the owner of House A received an electric bill from Adams Electric that stated "Credit Bill, Do Not Pay, -16.64." The owner of House B received a bill that stated "Payment Due \$108.98."

All things being pretty much equal between the two houses, why the vast difference in amount owed?

House A is a 2,000-square-foot two-story home located in the Hundredfold Farm project west of Cashtown, Adams County. House B is a typical "stick-built" structure constructed in any of a number of housing developments that dot the rolling south-central Pennsylvania landscape.

Hundredfold is a cohousing project designed as an 80-acre multi-generational community of people who actively share a sustainable way of life. In this case sustainable means living with minimal impact on the environment.

Outside of the cost of constructing their own energy-efficient house, every resident shares in the cost of owning the farm, a common house and common areas.

This is work we choose

The project is a dream realized for Bill Hartzell, who moved with his wife Sandy to Adams County in the mid-1990s. The two gathered others together and in 1999 purchased the Seven Springs Tree Farm, located along Old Route 30 in Franklin Township. The group found a farmer who wanted to retire and keep his farm in agriculture, according to Hartzell.

The site had everything needed for the dream to be realized, including an existing Christmas tree business that could be operated organically and a large hill facing south — the perfect site for sustainable housing.

"We came with an ideal and we had to face reality," says Hartzell of those early years. "There were lots of technical details to handle (early on) that we won't have to deal with from here on."



A WETLAND SOLUTION: Bill Hartzell, left, and David Pierce, center, explain to Holly Sutphin and Molly Van Lieu, right, of Congressman Todd Platts' office, how an artificial wetland inside a greenhouse at Hundredfold Farm will handle wastewater that can be used to flush toilets and water the garden and common areas after it is treated. Hartzell notes Hundredfold residents use about 10 gallons of water per day, well below the 75 gallons per day set as a state guideline for most housing developments.

"This is the work we choose. We are passionate about it," he adds. "There were lots of naysayers during the early years, but we have seen this evolve from a dream to what it is today."

Over those years, people came, attracted to the concept of a cohousing community. Some left and some stayed. David Pierce and Joel Plotkin came in 2002 and stayed.

"People would say, 'Those hippies with their ideas,'" says Plotkin, sitting in the living area of his new home serving guests fresh strawberries from the community garden. "But, we proved we can actually live this way."

"There was a preoccupation early on with what would happen and when it would happen," says Pierce. "We were of diverse experience, and we all brought different skills. We had to develop new skills as well."

"That's what brings people here — that product," says Hartzell. "We turn to each other and fill the voids. We train ourselves. It's the educational experience."

"We learned to deal with ourselves and how to find resources in the outside world," he adds. "To say we did this is the best part. The shock is how much work it is."

"This takes discipline, it takes a commitment," says Pierce. "Those who come here have been recycling for a long time. They have always aspired to live this way. They now are living that way 24 hours a day."

Raising consciousness

The house structures, limited to 2,000 square feet or less, are models of energy efficiency. Southern-facing windows and tile floors harness the sun for radiant heating. The sun also provides plenty of domestic hot water and produces electricity through photovoltaic generator and battery units. Natural gas provides a small amount of supplemental hot water when needed.

Prepoured, earth-bermed north walls help maintain a constant cool temperature on the ground floor during the summer. Modular construction



A GRAND VIEW: Interest is increasing in the Hundredfold Farm project located west of Cashtown, Adams County. The rural cohousing development includes seven houses with three more scheduled to be built this summer. The first house was constructed in August of 2006. The project includes a greenhouse and artificial wetland wastewater treatment facility (white structure at upper right).

reduces on-site waste, and only Energy Star appliances are used.

"We are free to design the insides to what we want," says Plotkin, indicating that his house is actually three modules put together to form one house.

To deal with the summer heat, resident Lou Hammon demonstrated in his house how air flow and temperature can be controlled with window shades and fans.

"We live WITH these houses. We orchestrate them," he says.

"This is a matter of raising consciousness," says Hammon, adding residents make choices to consume energy in ways that are most energy-efficient.

"We are worried about the planet's resources, and we need to conserve," says Hammon. "The people who live here have that embedded in their consciousness."

Another way to develop

The community is also a model of conservation. Rainwater will be collected and stored for use in the community garden and in common areas immediately surrounding the closely clustered houses. Residents share tools and equipment, and eat a meal together at least once a week.

"This is another way to do development and preserve agricultural ways," Hartzell says, adding that interest is picking up because Hundredfold is no longer just a dream. "This is our



HARNESSING THE SUN: Hundredfold Farm residents Joel Plotkin, left, Bill Hartzell, center, and David Pierce discuss how each house in the project harnesses the power of the sun to create electricity. Roof panels generate electricity that flows through an inverter and battery pack before becoming common household electrical current. Power generated by the unit is used to reduce the homeowner's electric bill. Any excess power is "banked" for which the homeowner will receive credit at year's end.

opportunity to demonstrate a sustainable development."

As for the future, the residents hope to host educational seminars on topics relating to organic farming, renewable energy and sustainable methods. The residents are currently working with forestry students from the nearby Penn State Mont Alto campus.

Project residents and Adams Elec-

tric worked together for the last three years as the co-op developed policies to handle renewable energy projects on its lines. Those policies determine how projects will be compensated for excess energy produced, and sets safety measures for installations. Due to that early work, the farm's efforts to sustain itself through renewable energy went more smoothly. ☺