

# Green Acres

## DEVELOPER TO BUILD 'ZERO-ENERGY' HOMES IN NEW PALTZ

**W**hile many contractors might be gun shy to build houses with the real estate crash and skyrocketing fuel costs, Anthony Aebi, owner of 25 lots on 10 acres of land behind Bontecou View Drive in New Paltz, is gung ho and going green.

Not only is Aebi going green he's going for "zero energy" – the highest state and federal ranking for energy-efficient homes.

"I just built a 4,000-foot zero-energy house in Esopus, very high-end, and it received the only perfect score for Energy Star ratings in New York State," said Aebi, who has teamed up with architect David Toder to design zero-energy homes at a New Paltz development called "Green Acres."

A zero-energy home means that what the structure produces and uses evens out so that there is no extra energy being siphoned off the utility grid.

According to his project manager, Edgar Osis, who is working on the first two homes, there are several design and material components that go into a zero-energy building.

Each of those two 1,800-square-foot houses are on a 0.3-acre parcel with views of Sky Top.

"The homes have a geothermal pump system, which basically uses the earth's constant temperature of 55 degrees," he said. "That's the baseline temperature that helps to cool the house or to heat it up. It's very different to go from 55 degrees to 68 or 70 degrees at night in the winter than it is to go from 30 degrees to 68 degrees, which is what other heating systems have to do."

There is also a heat-exchange system put in that allows a constant supply of fresh air into the house. It uses the air going out of the house to warm or cool the fresh air coming in through this ventilation and exchange process.

"Not only does this make the home more energy-efficient," said Osis, "but it provides those that live there with a constant supply of fresh air and good air quality. The pollen is filtered out as are other irritants."



Owner Anthony Aebi and architect Dave Toder on Green Acres.

PHOTO BY LAUREN THOMAS

Insulation is also key. Osis pointed to the foundations of the two homes that each have several feet of concrete poured into their frame called a "concrete form."

"This provides a thermal mass, which slows the response time of cold air or warm air that attempts to move through the structure from inside or outside," he said. "If the temperature at night drops to 30 degrees, it will take much longer for the cold to penetrate through the concrete form."

The roof system is also insulated with an "open-cell foam spray." While Aebi said this product was "certainly not green, it's much better than utilizing fiberglass, which almost all homes do for their roof insulation."

The most basic component is orientating the house towards a southern exposure so that they can utilize the sun's heat and energy to warm the home and create electricity through photovoltaic cell panels.

"Residential homes utilize 30 percent of our country's energy," said Aebi. "I want to get that down to zero. By using the photovoltaic cells you can produce your own energy from the sun, which runs your home. And if you produce more than you need, it goes back onto the grid and Central Hudson pays you."

Aebi acknowledges that his zero-energy homes will run between 15 and 20 percent higher than

the market value because of the cost of building them.

"The cost of fuel right now is so high that they will make back that money in a few years," he said. "If the price of oil keeps going up, then they'll make it back in a year. It's the best investment you can make right now, and it's also an investment in our future."

Homebuyers can also receive state and federal tax credits for utilizing Energy Star-rated systems.

Donna Russell, of Russell Walker Real Estate in New Paltz, concurred.

"There is a lot of interest from clients looking for energy efficient homes," said Russell, who has just become licensed as an eco-broker, a new designation. "There is much more awareness about the need to preserve our resources, protect the environment and with the cost of utilities skyrocketing, people are very serious about what type of energy systems are going to heat and cool their homes."

"I have people on fixed incomes terribly worried about the price of fuel going up and interested in energy-efficient homes. We're on the cusp of something here that is very exciting and hopefully it will spread throughout the country."

So is it a risky time to build?

"Yes it is," said Aebi. "But it's also a risky time to continue building the way we were. I cannot build one more wood-frame house that I know will just drain resources, cost homeowners tons of money in heating and utility bills and in 50 or 60 years need major renovation."

For additional information, call 255-1088 or visit [www.RussellWalkerRealEstate.com](http://www.RussellWalkerRealEstate.com).

– Erin Quinn