



Field trip tours zero-energy home of the 21st century

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TOWNSEND -- Carter Scott, president of Transformations, Inc., a town-based "sustainable development and building company," may be one of a new breed or in a class by himself.

Either way, Coppersmith Way, a three-year-old development still under construction, may be on the ground floor of a new building era. That is, if you believe that the "zero-energy home" concept is for real.

Members of Ayer-Shirley Local, a green-focused, grass-roots group, decided to see for themselves.

Scott conducted the recent walking tour, spotlighting housing not standard in New England, where solar energy is less popular than, say, in sunnier states. But you'd never know the capes and colonials on Coppersmith Way -- where Scott lives with his family -- are anything but traditional. The state of the art stuff is as unobtrusive as it is innovative.

All but one of the houses (lot sold separately) are "green," from environmentally-friendly building materials to solar panels to septic systems. Beneath verdant, flower-bedecked lawns that are not (by covenant) treated with chemicals, these systems leach near-potable water. Berry bushes can be -- and are -- planted safely above the leach fields, Scott said.

Exteriors sport a complimentary palette of eye-pleasing colors. Inside, electric HVAC systems quietly draw most or all of their juice from natural sources on site.

Carter invited visitors into his home to see the square room in his basement that houses the controls of a hydrothermal heating and cooling system. But the beefed-up, space-age insulation may be the most important factor, he said.

Visitors also toured number 21, a new house for sale at the end of the cul-de-sac: a three-bedroom home designed to produce as much energy as it uses, without oil or gas.

Features in both houses include solar electric panels, central air and super-insulation to keep the interior seasonably comfortable.

When the lights went out during the ice storm, houses like these could retain a livable temperature for several days, and they did, Scott said.

That's just a sketch of the conversation, but if a dictionary of esoteric terms would have helped a novice, some in the tour group were well-versed, asking about insulation values, systemic ratings, structural features and building materials. Scott spared no effort to answer and elaborate. He's an advocate as well as an expert, after all.

He explained insider lingo, too, but it's backed up in his firm's literature.

Transformations, Inc. had been working with the "zero" energy philosophy for several years when it launched the Coppersmith Way development in 2006. The goal was to build "environmentally-friendly, price-competitive solar houses."

It's also part of a contest. The firm was chosen to compete in a "Zero Energy Challenge" sponsored by the state's investor-owned utility companies. ICF international, the program administrator, made the picks based on proposals submitted by homebuilders and owners across the state. Six were chosen to plan and deliver finished products by December 2009. The homes must have a HERS index below 35. (Energy Star homes must meet an index of no more than 85.) The acronym stands for home energy rating system, and the indexes not only earn points, they can translate to savings for buyers.

Three homes with the lowest HERS index split \$50,000 in prize money. Transformations' glossy brochure details how the homes are built, drawing on the sun for power and heat, from solar panels to heat-recovery ventilators to insulation.

"Transforming the way we build" is the firm's mission statement and core value. In addition to the featured new home, Coppersmith Way has lots available for new builds and an array of styles to choose from. But along with the familiar features comes a new concept that the Realtor's listing dubs "the home of the future."

Affordable and market-rate houses share an upscale streetscape with nary a sign of which ones are which. That's the intent, said Scott, and only part of this success story, which hinges on thinking outside old boxes and going green from the ground up.

The house for sale is market-rate, listed with Re/Max Prestige agent Mark Tavenner for \$379,900.

The Greek revival-style façade doesn't hint at the tight ship inside: thick walls loaded with space-age insulation, high-tech gear squirreled away in closet corners, and a room in the finished basement, similar to the subterranean con in Carter's home. Otherwise, the 2,108-square-foot white house looks serenely normal, neat as new paper and with features savvy buyers want, such as hard wood floors, natural light and a two-car attached garage.

This house and others like it offer a new view of the 21st century. That is the "zero-energy home challenge" Carter plans to continue, contest or not.

When contest results were released, Carter Scott had taken second, and with it, a \$15,000 prize.