My Green House Is BIGGER than Yours

Mega-Mansions are Going Green, at Least a Little

By Brita Belli

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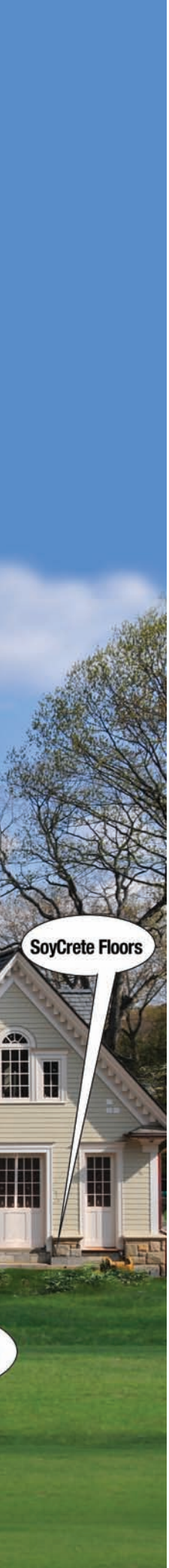

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Want to know why owners of 10,000-plus square-feet second homes are building greener? Guilt. "It's part of a guilt complex," says Frank Dalene, the vice president and chief financial officer of Hamptons Luxury Homes. "They are coming to the Hamptons and building a second home and that home is large. They're concerned."

The Hamptons—a beachfront stretch on the east end of Long Island, New York, that is considered one of the most exclusive summertime retreats for the rich and famous—has become the setting for an environmental awakening. These part-time residents have the budgets to implement the higher up-front costs of renewable energy systems, from geothermal heat pumps to rooftop solar panels, and the over-the-top energy needs to make them cost-effective. Dalene, a green homebuilder since the 1970s who is currently designing a solar and wind system to take his own East Hampton home off-grid, recently formed the Hamptons Green Alliance. The group aims to educate the homebuilders who can afford these renewable energy systems on how to implement them. "The environmental movement hit the Hamptons way before anywhere else in the U.S.," says Dalene. Land is so scarce and so fiercely protected on the money-drenched stretch that homeowners are uniquely aware of its value.

Where the average American home has doubled in size since the 1950s to a spacious 2,349 square feet, today's mansions make those homes look like hobbit holes. The beachfront Hamptons fortresses that Dalene builds are as large as 18,000 square feet, with green details like cast-in-place concrete and reclaimed Burmese teak. Inside, they look like museums minus the art—all sweeping staircases, endless halls and towering views of the sea. Chuck Hilton, a green-leaning architect with Hilton-VanderHorn Architects in Greenwich, Connecticut, says most of the houses he works with are in the 7,000-8,000 square-foot range, but larger projects go up to 20,000 square feet.

LEED-ing the Way?

Typically, when upscale homeowners decide to "go green," they aren't interested in sacrificing quality, comfort or appearance. Most are not attempting to gain Leadership in Energy and Environmental Design (LEED) certification from the U.S. Green Building Council, because that would involve serious efficiency measures in every facet of building to compensate for points lost to size.

Not that it can't be done. Billionaire green-minded media mogul Ted Turner's daughter, Laura Turner Seydel, calls her home "EcoManor." The 6,000-plus square-foot Tudor in Atlanta, Georgia, was the first over-5,000 square-foot home in the U.S. to win LEED certification in 2007, thanks to extensive energy-saving designs and significant investment. The house has 27 photovoltaic panels on the roof, rainwater collection, geothermal heat pumps, soy-based foam insulation and doors made from wheat. According to an article in *Fortune* magazine, the Seydel's energy costs are 80-90% below that of a similar-sized Atlanta home.

Former Vice President Al Gore, lambasted in the press for proselytizing about global warming while calling a 10,000-square-foot, energy-sucking Tennessee mansion home, took major steps to bring the 80-year-old structure up to speed. Thanks to the addition of solar panels, solar roof fans, a rainwater collection system, geothermal heating and compact fluorescent lighting, Gore's home is now one of 166 U.S. homes with a gold LEED rating.

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In Oakland, California, developer Mike McDonald and his wife Dr. Jill Martenson have rebuilt their fire-damaged home with incredible energy efficiency. Though the home is 4,600 square feet, the combination of passive and active solar features, soy insulation and geothermal heating and cooling has led the couple to a Platinum LEED rating, the highest possible. Only 140 homes in the U.S. can boast that rating.

And now, self-described "maverick daredevil real estate artist" Frank McKinney has built a 15,000-square-foot eco-mansion in Palm Beach County, Florida, with 11 bathrooms, two elevators and separate white and red wine cellars. It has a $120,000 solar panel roof system, bamboo floors and a graywater system for keeping the grass green. The house, built on speculation, is slated for completion—and LEED certification—this January.

But these oversized homes built as models of conservation and efficiency are the exception.

Size Matters

"I believe a family of four in a 10,000-square-foot house can not be called sustainable," says John Rountree, principal owner in Westport Solar Consultants in Westport, Connecticut, who works on many high-end homes. "The biggest energy savings come from ▸

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This spacious Hamptons home features reclaimed Burmese teak.

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reducing the size of homes. Solar is the last thing they should consider—after the size of the home, the level of insulation and the materials."

And for many of these mega-mansion owners, solar is an afterthought. Concerned with aesthetics—preserving the look of a refined estate house—owners don't want the shiny popped-up PV panels facing the street or marring the look of their slate roofs, says Rountree. "In new construction, you can have frames built into a pocket so the panels are flush with the roof," he says, but the panels themselves don't offer a wide range of options, the level of customization that upscale clients typically demand.

"It's difficult for solar [to succeed] in suburban settings," agrees Hilton. "These are established neighborhoods, and traditional homes. There are mature trees. It's difficult to find locations for solar panels."

In the Hamptons, Dalene says solar panels come in handy for powering pool houses. "One client in Sagaponack [a Hamptons village with one of the most expensive zip codes in the U.S.] didn't want solar panels on the main house," Dalene says. "We put them on the pool house and now they power all the pool equipment."

Geothermal systems have become fairly standard among oversized homes, particularly as they are situated on big lots. The technology involves taking advantage of the constant temperature—between 50 and 60 degrees F—4½ feet below the earth's surface. A series of wells are drilled into the ground and connected via pipes through which a food-based refrigerant moves. This looped system allows the house to exchange both hot and cold air with the ground, with no fossil fuels burned and no harmful emissions. The components that are put in the ground have a life expectancy of 80 to 100 years, says Hilton. Those above ground last as long as a typical system. "So on the first lifecycle, payback takes 12 years," says Hilton, "but on the second lifecycle, you're saving a ton of money."

And saving money, in the end, is what's leading even the wealthiest homeowners to take temporary pause and consider a few green tweaks. "Even if you have a lot of money," says Hilton, "nobody likes wasting it on utilities."

CONTACTS: Hamptons Luxury Homes, (631)537-1600, www.hlxhomes.com; Hilton-VanderHorn Architects, www.hilton-vanderhorn.com; U.S. Green Building Council, www.usgbc.org; Westport Solar Consultants, (203)227-1766, www.westportsolar.com. E

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