

Builders Can Do More to Reduce Carbon Footprints

Purchasing carbon offsets accounts for the greenhouse gas emissions it's not possible to eliminate through sustainable building practices and greener company operations.

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Construction activities, transportation to jobsites, and office operations are all major energy gobblers and creators of the greenhouse gas carbon dioxide (CO₂), a driver of global warming. Building energy-efficient and sustainable homes, reducing jobsite waste and recycling, reducing company transportation and fuel use, and implementing greener office practices are key steps to reducing a building firm's environmental impact. But there's always something more that can be done, and purchasing carbon offsets through a reputable provider is one major way to mitigate the CO₂ your firm creates.

Carbon offset purchases allow businesses and individuals to counteract the greenhouse gas emissions they create by funding green projects, such as renewable energy generation or forest carbon sequestration, being carried out by other businesses that would otherwise be unable to do so.

It's easier and less expensive than you might think. That's what custom builder Frank Dalene, president and CEO of [Hamptons Luxury Homes](#) (HLH) of Bridgehampton, N.Y., and founder of the [Hamptons Green Alliance](#) (HGA), discovered when he decided to further shrink HLH's carbon footprint by purchasing offsets.

Dalene and his partners had already reduced their firm's operational CO₂ emissions as much as possible as part of their overarching goal of achieving carbon neutrality, in addition to building greener homes. As a founding member of the HGA and the builder of the organization's first net-zero energy demonstration home ([read about it here](#)), Dalene is serious about neutralizing the environmental impact of both his company and the homes it builds. Purchasing carbon offsets seemed a logical and beneficial way to cement HLH's leadership as a carbon-neutral business and to demonstrate to HGA members how offset purchases work.

Vague and unsubstantiated claims and other shady practices are common in the still-developing retail carbon offset market, so Dalene researched potential offset brokers thoroughly. He selected [Verus Carbon Neutral](#), which is a member of the [Chicago Climate Exchange](#) (CCX)—a greenhouse gas cap and trade institution that requires third-party verification of the carbon reduction projects it registers. Verus purchases green commodities registered on CCX and sells them to clients to offset their carbon emissions. Once all the offsets generated by a specific project are purchased, the project is retired from the CCX so it can't be sold multiple times.

To determine a company's carbon footprint, Verus conducted an audit of the company's CO₂ emissions based on three key factors:

1. the amount and type of fossil fuel the company burns;
2. the amount of utility-supplied electricity it uses and how cleanly that electricity is generated;
3. and other emissions-producing activities such as business travel, employee commutes, business waste, and recycling.

Once these elements are calculated, they're converted into metric tons to represent a company's carbon footprint. Verus then offers clients a menu of options for offsetting the emissions. Clients may choose to offset from 10 percent to 100 percent of their emissions and may select a local or a foreign offset project.

Dalene chose to offset 100 percent of HLH's 156-metric-ton footprint (for 2008) at a cost of \$2.75 per metric ton. "It was surprisingly less costly than we anticipated. The price of offsets are really cheap overall [right now]," Dalene notes. "So it's a good time for people to start doing this and get used to doing it."

Custom builder Robert Soens, founder of [Pinnacle Custom Homes](#) in Decatur, Ga., also found the price of offsets "extremely reasonable." "If you're already running a fairly green operation, the little bit of additional cost it takes to go through the audit and purchase your offsets to make you carbon neutral is not that much," he says.

Soens, who specializes in building green homes and in green renovations, was considering his efforts to green his company and thought he'd done everything he could on the emissions-reduction front, including dramatically scaling back his transportation footprint by doing only local jobs, working from a home office, reducing material waste on projects, and building to LEED, EarthCraft House, and Energy Star guidelines.

"We have the smallest carbon footprint possible, but even doing everything that we can, we're still not 100 percent carbon neutral on our own. So buying the carbon offsets was just the final way of achieving that," Soens says.

While researching the potential of carbon offsets, he read about Verus' work with a neighborhood business association in Atlanta, was intrigued, and contacted the company. From Verus' audit, Soens discovered that Pinnacle's year 2008 carbon footprint totalled about 19 metric tons, much of which was generated from transportation to jobs and conferences in addition to office operations.

Both Soens and Dalene intend to continue offsetting their companies' carbon footprints, and Dalene and his partners are already tracking their current year's energy usage in preparation for their next evaluation.

"We're emitting CO₂, and no matter how much we try to mitigate, we'll always emit CO₂," Dalene says. "What we can't mitigate, we offset. It shows our community that we're walking our talk."

Most of Verus' clients choose to support a local project, according to Andrew Keenan, Verus' sales and marketing director. "But any offset accomplishes the same goals, whether they're next door or in China, India, or Australia," he adds. "They all have an impact on greenhouse gases, which affect us all."

Dalene selected an agricultural methane capture project operated by a family dairy farm in Georgia. "We chose a methane capture project because we wanted to get the biggest bang for our buck," Dalene says.

According to the U.S. Environmental Protection Agency, methane is 21 times more effective at warming the atmosphere than CO₂, and its ability to hang around the atmosphere for nine to 15 years makes it a prime candidate for climate change mitigation activities. The project Dalene selected harvests the methane from the dairy's cow manure and uses it to generate electricity that is recycled back into the farm's operations; the excess power is sold to the local utility.

Soens elected to offset 100 percent of Pinnacle's footprint with the same agricultural methane capture project as a way to balance his use of a gas-powered vehicle in getting from job to job. For Soens it's important to green not only the houses he works on, but also how he accomplishes that work.

"Home builders and renovators have one of the most unique opportunities at the moment because such a tremendous amount of greenhouse gases and waste come from not only operating homes but building and renovating them," he says. "I think as an industry we have a tremendous role to play in making the world a better place, so it's great to make every use of that opportunity possible."

For a guide to carbon offsets, download ["Consumers Guide to Carbon Offsets,"](#) (PDF) published in 2006 by Clean Air – Cool Planet.