

Carbon confusion

Buying emission offsets is a challenge for consumers



Everyday, more and more environmentally conscious people flock to websites such as e-BlueHorizons.com in hopes of paying to offset their carbon emissions. Though popular, these "offsets" are not yet regulated, and consumers can't always be sure what they are buying. The video above is the story of one environmentalist, her \$150, and the dubious ends to which it was put. (DINA RUDICK/GLOBE STAFF)

VIDEO: http://www.boston.com/news/nation/articles/2007/03/13/carbon_confusion/

By Beth Daley
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BARNET, VT. -- Sara Demetry thought she had found a way to atone for her personal contribution to global warming.

The psychotherapist clicked on a website that helped her calculate how much heat-trapping carbon dioxide she and her fiance emitted each year, mostly by driving and heating their home. Then she paid \$150 to e-BlueHorizons.com, a company that promises to offset emissions.

But Demetry's money did not make as much difference as she thought it would. While half of it went to plant trees to absorb carbon dioxide, the other half went to a Bethlehem, N.H., facility that destroys methane -- a gas that contributes to global warming. The facility has been operating since 2001 -- years before the company began selling offsets -- and Demetry's money did not lead the company to destroy any more methane than it would have anyway.

Moreover, the project received a "dirty dozen" award from a New England environmental group in 2004 because it burns the methane as fuel to incinerate contaminated water from the landfill, emitting tons of pollution each year in the process. This method of destroying methane can emit more pollution than other burning methods.

"I really thought I was doing something good," Demetry, 42, said after being told what became of her money. "I thought if I contributed this much money it would be helping the environment that much more."

Demetry's \$150 purchase is part of the fast-growing world of voluntary carbon offsets -- an unregulated, largely on line marketplace.

The screenshot shows the e-BlueHorizons website interface. At the top, the logo "e-BlueHorizonsSM" is displayed above a landscape image. A blue banner reads "Act Now to Fight Global Warming!". Below this, a welcome message explains that users can fight global warming by retiring verified greenhouse gas emissions offsets (a.k.a. "carbon offsets" or "carbon credits"). Each offset represents the equivalent of one metric ton of direct reductions in carbon dioxide emissions.

Two bullet points describe the offsets:

- Offsets retired through e-BlueHorizonsSM result from the capture and destruction of landfill methane, a greenhouse gas with a global warming potential 21 times greater than carbon dioxide.
- "Retiring" offsets means removing them from relevant registries and taking them permanently out of circulation along with any associated future "right to pollute".

A section titled "Please select the number of carbon offsets you wish to retire:" features five buttons with corresponding images:

- 10 Offsets \$50 (Image: Polar bear)
- 20 Offsets \$100 (Image: Forest)
- 30 Offsets \$150 (Image: People on a boat)
- 40 Offsets \$200 (Image: Mountains)
- 50 Offsets \$250 (Image: People on a beach)

 Each button has a "Buy Now" link.

Below the buttons, a note states: "Your action will benefit the environment in two important ways. In addition to retiring the quantity of carbon offsets you select, e-BlueHorizons will donate one-half of the net proceeds from your transaction to The Conservation Fund, an environmental non-profit working to restore wildlife habitat and fight climate change by planting trees. To date, the Fund has planted five million trees across the U.S., which are..."

On the right side of the page, there are several promotional boxes:

- "Calculate My Climate Impact CLICK HERE!" with a calculator icon.
- "UNIQUE GIFT IDEA BIRTHDAYS, WEDDINGS, AWARDS & RECOGNITION" with an image of gift bags.
- "FAQs" link.
- "Act Now To Fight Global Warming!" button.
- "Your cart" section showing "Cart is empty" with a shopping cart icon.
- Links for "View cart" and "Checkout".
- Small images of people and a forest at the bottom right.

Although specialists say some of the money is well spent, it can be difficult for consumers to figure out if they are buying any new environmental benefit.

Sales of voluntary offsets skyrocketed worldwide from \$6 million in 2004 to \$110 million last year, according to Abyd Karmali of ICF International a consulting firm.

Everyone from the Dixie Chicks to Prime Minister Tony Blair of Britain now invests in greenhouse gas-reduction projects to offset personal emissions. The projects can include planting trees, destroying methane, or harnessing wind, solar, or other types of renewable energy that reduce demand for fossil fuels. The trend is so hot that the New Oxford American Dictionary declared "carbon neutral" -- the balance between producing and reducing carbon -- the 2006 word of the year.

The Globe found more than 60 websites that sell offsets to US consumers, but there is no government oversight of these sites, nor is there a uniform standard for what constitutes a legitimate offset. Price and quality vary greatly.

Some websites provide scant information about the criteria they use to pick projects and how much they charge for overhead, making it difficult for consumers to sort out effective offsets from projects that have little true environmental value.

"It really is anything goes," says Anja Kollmuss, outreach coordinator for the Tufts University Climate Initiative, which published a detailed consumer guide to offsets last month.

Simple concept

The concept of carbon offsets is simple. Individuals can calculate how much carbon dioxide they emit using one of the many online carbon calculators, or they can pick the US average -- about 20 tons a year per person, according to the US Energy Information Administration.

On offset websites, consumers can pay for the emissions they produce when commuting to work, flying on planes, heating homes, or even celebrating weddings. Shoppers then decide what project they want to fund, to absorb, avoid the production of, or destroy an equivalent amount of heat-trapping gas elsewhere.

There are scores of projects, from paying for solar energy in the tiny south-Asian Kingdom of Bhutan to investing in a wind farm on a South Dakota Native American reservation. Most companies say their offsets are independently verified, but because there is no one standard, those claims can have little meaning for consumers.

The price for offsetting a ton of carbon varies greatly, from \$5 to \$25. Some companies don't clearly state on their websites how much of the purchase price actually goes to the offset and how much to transaction costs, salaries, other overhead and profit -- nor, in fact, whether they are for-profit.

Broader criticism of the concept of offsets is also growing as some environmentalists accuse consumers of trying to buy the right to pollute, instead of taking the more difficult step of reducing their energy consumption by buying smaller cars and homes. One website -- cheatneutral.com -- pokes fun at offsets, comparing them to trying to compensate for infidelity.

"If people really want to offset their emissions, they first should insulate their home," said Michelle Manion, climate and energy director for Northeast States for Coordinated Air Use Management, which provides technical advice to states. "Some offsets are valuable, but it's hard to tell which ones."

Seeing the 'Truth'

Last year, Demetry says she was "rocked" by watching Al Gore's Oscar-winning global warming documentary, "An Inconvenient Truth." She had already persuaded her fiancé, Arthur, to invest in new energy-efficient windows in their two-story home. After she saw the movie, the couple installed a more efficient furnace and boiler and replaced conventional light bulbs with energy-efficient ones.

But it was impossible to get their emissions to zero, so Demetry decided to do what Gore does: offset the rest.

Demetry chose e-Blue because it was one of five websites recommended by Environmental Defense, a national environmental group. Yet it does not appear



that e-Blue meets at least two of the group's criteria: ensuring that the project's effect is positive and must "exceed business-as-usual."

Tom Murray of Environmental Defense said he was unaware of any controversy about the project and would investigate.

E-Blue and its parent company, CommonWealth Resource Management Corp. , insist that Demetry's -- and all customers' -- purchases make a difference.

Anton Finelli, a co-owner of CommonWealth, which also owns the Bethlehem methane project, said it doesn't matter that his methane facility has been operating at the landfill since 2001 -- what is more important is that it is measurably destroying methane. The impact of other offset projects, such as renewable power or tree planting, can be indirect and more difficult to measure, he said.

He says he could sell the offsets to businesses but chose instead to sell them to individuals, and notes that once bought, they are "retired" and can never be resold. Consumers are getting even more than businesses would, he says, because his company donates half of all proceeds to The Conservation Fund to plant trees. Burning methane reduces its ability to trap heat in the atmosphere, lessening its contribution to global warming. That's why it can be sold as an offset.

"We are giving something of value . . . that is in the ground working today," he said.

Finelli said the environmental complaints about his project originate with Bethlehem residents who don't want the landfill to expand in their town.

Demetry says she wishes she had known more about the project, before paying her money. But e-Blue doesn't list where its projects are located. Demetry said she is disappointed that her money went to support an existing facility -- rather than creating new offsets -- and that it was controversial.

In 2001, Finelli's company began using methane as fuel to incinerate about 2 million gallons of contaminated water that seeps out of the landfill each year. New Hampshire officials say the project, called a leachate evaporator, emits about 25 tons of pollution each year as the contaminants are burned -- well within its regulatory limits.

Finelli said his project helps the environment by destroying the methane and the contaminants in the water.

Burning the methane in this way also allows the company to avoid trucking the contaminated water to a treatment plant in carbon-dioxide-spewing trucks.

Still, two years ago, the project was declared one of the most polluting in New England by Toxics Action Center, a regional environmental group.

Some Bethlehem residents say state pollution limits for the project are set too low.

"These people who are buying these offsets think they are helping the environment, but the tragedy is it's going to pollute our air," said Lon Weston, a Bethlehem, N.H., selectman.

Standards vary

Demetry's purchase gets at a key concept in the offset world, called additionality. For consumers, it boils down to this question: What am I making happen with my money?

"Consumers don't even ask this question, because they assume their money is going for something additional, something that is new," said Oregon-based Mark Trexler, who is director of EcoSecurities Global Consulting Services and has studied carbon offsets.

But offset companies use different definitions of what's additional.

Finelli said e-Blue's offsets are verified by Environmental Resources Trust Inc., a nonprofit that says projects meet its key additionality standard if their reductions in greenhouse-gas emissions are not required by law.

Other standards, such as World Wildlife Fund's Gold Standard, are far stricter, requiring that a company prove it is not selling offsets for older projects or for ones it was going to build without money from offsets.

"Because there is no one standard in the voluntary market, the offsets being sold to people are often like money made with your own Xerox machine," said Seth Kaplan, senior attorney for the Boston-based Conservation Law Foundation. "People can't be sure if what they are buying has any value."

Demetry said she's learned to be savvier. Next time, she'll do more research before she pulls out her credit card.

"I still believe in offsets, but we need help to be able to make informed decisions," she said. "They have to be doing something real."

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CORE Carbon Offset Research & Education **SEI STOCKHOLM ENVIRONMENT INSTITUTE**

Policy Information Consumer Information Aviation Information

Welcome to CORE

This website provides an up-to-date analysis and synthesis of the most influential offset programs and activities. It reflects on lessons learned, and aims to inform consumers as well as participants and designers of current and future offset programs.

The site is maintained by the Carbon Offset Research and Education (CORE) Initiative of the Stockholm Environment Institute. It is divided into three sections which are interlinked:

Policy Information	- provides in-depth analysis and information about offset design and policies.
Consumer Information	- provides information relevant to offset buyers and offers an introduction to the world of carbon offsetting.
Aviation Information	- provides an introduction to the issues related to GHG calculations from aviation for carbon offsetting.

About CORE

Carbon Offset Research & Education (CORE) is an initiative of the Stockholm Environment Institute (SEI). SEI is an independent, international research institute bridging science and policy for sustainable development. CORE's mission is to foster offset programs and policies that maximize their potential benefits, while minimizing their potential risks. The CORE team conducts cutting-edge research to inform policy makers and the general public.

The content of the website is based on research conducted separately for US EPA, WWF and others. It does not necessarily reflect the views of these institutions, and no official endorsement should be inferred.