

## Planktos Ocean Geoengineering Plans - February 19, 2007 San Francisco Chronicle

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**San Francisco Chronicle**

### **Saving the Earth can also bring profit to startups**

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Russ George wants to turn a profit from global warming. And he thinks algae is the way to do it.

Don't laugh. Now that Europe has opened a market based on carbon dioxide emissions, it could work, he insists.

George and his Foster City startup, Planktos, plan to create huge algae blooms at sea that will suck some of the greenhouse gas out of the atmosphere, then sell credits to European companies unable to meet their emissions targets.

Those companies would, in essence, pay Planktos to take out of the air carbon dioxide they are putting in. Should California, New York or other American states adopt similar cap-and-trade systems, Planktos would sell here, too.

George belongs to a small but growing group of entrepreneurs trying to turn carbon dioxide limits into business plans. Spurred by the Kyoto Protocol that mandated greenhouse gas reductions in Europe and Japan, they are dreaming up products and services they can sell to companies that take advantage of cap-and-trade systems.

"That's what we're seeing right now -- this whole industry is really ramping up," George said.

Like many in the nascent field, Planktos is still in its early stages. George and his colleagues are running offshore tests to see if they can reliably produce the size of phytoplankton blooms they want, using ground-up iron ore to stimulate growth. They also are starting a forest restoration project in Hungary to remove carbon dioxide from the air. The company generated enough interest that Vancouver's Solar Energy Ltd. bought it last year for \$1.5 million, with Planktos now operating as a subsidiary.

George and his colleagues share another trait with fellow carbon entrepreneurs -- an evangelistic mix of business sense and civic responsibility.

"We mainly think we're saving the world," George said.

Most of the entrepreneurs concentrate on "offsets," ways to compensate for the carbon dioxide other companies produce.

Say a factory living under a cap-and-trade system knows it will spew more than its annual limit of carbon dioxide. To do so, it will have to buy credits that would allow it to miss its target. Perhaps the factory could buy those credits from a business that plants trees or one that builds windmills, which lower the need for burning fossil fuels.

TerraPass, based in Menlo Park, already sells a kind of offset for individual consumers.

Operating over the Internet, the company sells stickers to car buyers who want to compensate for the amount of carbon dioxide their vehicles produce. Because different models emit different amounts, prices vary based on the type of car, from about \$30 to \$80. The money then funds renewable energy.

Although TerraPass now targets individuals, with 2,800 customers in its one year of operation, Chief Environmental Officer Tom Arnold sees it selling to big business under a cap-and-trade system. He too views the job as both a source of profit and a way to help the environment.

"We're one of these unique beasts of social enterprise," Arnold said. "We are structured as a for-profit company. But if I was just profit-motivated, I'd be at Cisco."

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This article appeared on page **J - 6** of the San Francisco Chronicle **End of Article**

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