Carbon Offsets: A Cautionary Tale

The carbon offset market is booming. More than 30 companies are ready to help eco-conscious consumers compensate for their carbon emissions by contributing to projects that reduce greenhouse gas emissions elsewhere.

The idea sounds promising. By purchasing carbon offsets, consumers can mitigate their climate impact and help finance projects that keep greenhouse gases out of the atmosphere. In addition, as more people demonstrate their willingness to pay extra for green initiatives, it sends a signal to lawmakers that there is public support for tough climate legislation.

But critics consider promoting offsets to be a flawed approach. They argue that it encourages a business-as-usual attitude towards climate change by suggesting that consumers can neutralize their emissions without altering their lifestyle. Compounding the problem, there are as yet no agreed-upon standards to ensure that offset projects deliver the carbon reductions promised.

Nonetheless, well-chosen offsets can be an important part of a broader strategy to address climate change. They provide an additional opportunity for individuals who have already curtailed their energy consumption to reduce their impact on global warming still further. And fortunately, there are resources to help consumers find credible high-quality offsets.

How much does it cost?

Most offset providers have online calculators that allow potential customers to calculate their emissions and the cost of offsetting that amount. The various calculators frequently give quite different estimates of total emissions, however. This reflects differences in the level of detail users are asked to provide and in the methodology used in the calculations. Estimating the climate impacts of air travel is particularly complex.

Moreover, the offsets that are offered range widely in price, from $5 to $25 per ton of emissions. For consumers trying to make a choice, analysts suggest that the quality of the offset project rather than the cost should be the determining factor. It's better, they say, to invest in high quality offsets than to buy as many offsets as possible.

Choosing a high-quality offset

Offset providers fund a wide variety of projects, but how can consumers be sure that the offsets they buy will result in real emissions reductions? A recent report published by Clean Air—Cool Planet suggests a set of characteristics to look for in an offset project:

- **Additionality.** Will the offset revenues make the project happen or would it have occurred anyway (e.g., because it is required by law)?

- **Baseline.** Has a reasonable emissions baseline been determined against which reductions will be measured?

- **Quantification.** Are rigorous accounting rules used to quantify the greenhouse gas reductions?

- **Permanence**. Will the emissions reductions be permanent or might they be subject to reversal in the future (e.g., if the trees in a carbon sequestration project burn or are cut down?

• **Verification**. Are emissions reduction claims independently verified and verifiable?

• **Registration**. Are the offsets serialized and tracked to reduce the possibility that they could be sold more than once?

The bulk of the report focuses on the companies that sell the offsets. It evaluates the providers' understanding of carbon offsets and offset quality as well as the degree to which the information they offer enables consumers to make effective choices. The authors' longer term goal is to promote greater transparency in the retail offset market.

Another helpful resource for consumers looking for guidance is the Environmental Defense Fund's Carbon Offset Project, which identifies a number of offset projects that meet the organization's quality criteria.

Renewable Energy Certificates

Another way in which consumers are encouraged to "offset" their carbon emissions is to purchase Renewable Energy Certificates (RECs), also known as green tags. RECs are created when a renewable energy facility generates electricity. One REC represents 1,000 kilowatt hours of renewable electricity that is added to the nation's energy grid in place of conventional electricity generated from fossil fuels.

Buying RECs helps build a market for renewable electricity. As a general rule, however, RECs are not considered equivalent to carbon offsets because they cannot be assumed to be "additional." This is an important consideration for consumers whose goal is to become carbon neutral. Only if the sale of RECs is a decisive factor in a company's decision to pursue a renewable energy project can the associated RECs legitimately be used to offset carbon emissions.

An important resource for potential REC purchasers is Green-e Energy, an independent certification and verification program. Green-e certified renewable energy options meet strict consumer protection and environmental standards. Among the two-dozen-plus Green-e certified REC marketers are the non-profit organization Bonneville Environmental Foundation and the Native American for-profit company NativeEnergy.

The bottom line

For those who are serious about reducing their carbon footprint, the primary focus must be on cutting their energy consumption. And for real impact, everyone's goal must be effective public policy on climate change.

Online Resources for Additional Information

A Consumer's Guide to Retail Carbon Offset Providers, published by Clean Air—Cool Planet, December 2006. (www.cleanair-coolplanet.org/ConsumersGuidetoCarbonOffsets.pdf)

Voluntary Offsets For Air-Travel Carbon Emissions, published by the Tufts Climate Initiative, January 2007. (www.tufts.edu/tie/tci/carbonoffsets/index.htm)

Environmental Defense Fund's Carbon Offset Project. (www.edf.org/page.cfm?tagID=23994)

Green-e Energy website (www.green-e.org/gogreene.shtml)