

## Region Focus

### Weekly Update

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Offsetting "carbon footprints" is more complicated than you might think

By *Vanessa Sumo*

For those who worry about their "carbon footprint" every time they turn on the television or leave a hall light on, there are a variety of ways to mitigate the carbon dioxide produced by coal-fired power plants. For example, one can purchase carbon offsets online, the proceeds of which go to planting trees or subsidizing renewable, lower-pollution energy sources like wind and solar power.

In mid-February, North Carolina's two largest utilities — Duke Energy Carolinas and Progress Energy Carolinas — announced their plan to offer "carbon-free electricity." The utilities' goal is to increase people's awareness about the choices they make in using electricity, says Paige Sheehan, a Duke Energy spokesperson. "If customers understand the trade-offs of the power they use, then hopefully it will drive better decisions with how they use power."

Customers would buy carbon offsets through the utilities to compensate for the carbon dioxide emitted from their electricity use. The price of these credits would be determined by an offset provider chosen by the utilities. One possible provider, NC GreenPower, currently charges \$4 for one block of 100 kilowatt hours of green energy. (A typical household consumes about 1,000 kilowatt hours a month.)

While carbon offset programs sound like a good deal for the environment, their impact is not as straightforward as it seems. In fact, such programs may not do as much good as people think.

The motivation behind voluntary purchases of carbon offsets can be compared to making charitable contributions, says economist Matthew Kotchen at the University of California at Santa Barbara. People must receive some private benefit — such as feeling a "warm glow" or gaining social approval — from providing a public good. Otherwise, why would they bother to take measures to forestall climate change, knowing that others can benefit from their efforts without lifting a finger?

Unlike donations, however, the purchase of carbon offsets is an effort to clean up one's own actions. That could lead to more carbon-intensive activities if offsetting makes people feel less guilty about global warming. For instance, those who would otherwise buy a Prius may go for a Hummer instead if they can offset the latter's carbon dioxide emissions. Or a household may consume more electricity if they know that they can easily make up for the environmental impact by buying more carbon offsets.

If people voluntarily purchase carbon offsets, that must mean the offsets are "cheaper" than the guilt they feel over their carbon footprint, notes University of Melbourne economist Joshua Gans. The lower the price of the offset, the more easily they assuage their guilt. If a consumer's electricity use is no longer constrained by guilt, then he might end up consuming more electricity.