In a recent commentary, I suggested that the Pacific Gas & Electric Company’s new Green Option, pursuant to which consumers can subscribe to 100% renewable electricity, would not result in reduced greenhouse gas emissions. That is because under California’s cap and trade program, the utility can sell any unneeded carbon allowance for someone else to use. One way or another, a certain amount of carbon is likely to be emitted.

A reader, who goes by the moniker of *dagolub*, responded with a superb question: “This seems like it has implications beyond this program. Should those of us who live in [Cap and Trade]-regulated economies stop taking any personal actions to reduce our consumption of GHG-intensive products and services? By this argument, it seems like we’d just be shifting things around.”

While this appears to be a logical response, it doesn’t lead to the conclusion that we shouldn’t take personal actions that reduce greenhouse gas emissions. Here is why:

First, let’s think of carbon emissions as coming in two flavors – Covered Emissions (those that must be reduced below a prescribed cap) and Uncovered Emissions (those emissions that occur in a capped state but are not regulated, and those emissions happening in a place with no cap). There are two direct ways to reduce a utility’s Covered Emissions:

1. Use less electricity (for now, let’s think about improved energy efficiency)
2. Displace carbon-based electric generation with something else (for now, let’s call that renewable power)

Should individuals still improve their energy efficiency? Yes, because cost-effective efficiency improvements save you money. Should individuals install renewable energy on their homes and businesses? The answer is more complicated. How confident are you that cap and trade will work? It represents the largest market experiment in our lifetimes, and we won’t have the results for decades. Do you want to wait and see, or do you want to do something now to make things better? If you think that the cap and trade program will be an unmitigated success, then the answer comes down to economics and lifestyle. For some, photovoltaics already pencil out – over the life of the system, after taking advantage of tax credits and other incentives, those solar system users can expect to come out financially ahead. For many others, solar is still more expensive than the utility’s power. Consumers may still want to buy in, because they prefer the resulting lifestyle, or because they want to contribute to the economies of scale that could ultimately

make solar the cheaper choice for everyone.

Now, for the rest of the story: the Uncovered Emissions. The plane trips we take out-of-state, those iPads and other consumer groups assembled somewhere else, the beef produced on the plains, those apples from Mexico – all of these things fall outside of California’s jurisdiction. They all involve greenhouse gas emissions, and they are unlikely to go away unless we make different choices.

There is also a bit of a Catch-22 at play here: cap and trade may remove some of the incentive to make better personal choices, but cap and trade can’t work unless we do make those choices. In setting the California targets, for instance, the state’s Air Resources Board assumed high levels of energy efficiency improvements and renewable energy use. If that scenario doesn’t come to pass, it would be extremely difficult to achieve the interim greenhouse reduction goals anticipated in that program – not to mention the more significant long-term reductions needed to make a real difference.