

## **Adopting the Kyoto Climate Change Treaty -- Personally**

by *Viki Bok* ([vikibok@verizon.net](mailto:vikibok@verizon.net), 617-524-2766)

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I'm balancing precariously on a can of old paint in my dark, musty basement, trying to make out the numbers on my gas meter. After a quick on-line tutorial, I have learned how to make sense of the funny dials, and now venture down to the basement every day at 8:30 AM to read the meter. Why?

With our household energy bills up more than 40% from last year, we knew we'd have to find ways to save this heating season. But just as important, this year the drumbeat of news about global warming finally began to penetrate through the noise of our busy, two-working-parent lives. Though hardly an environmentalist, I'm finding it harder and harder to ignore the increasingly urgent voices of scientists and others saying that unless we dramatically change our fossil fuel-burning ways, the world we pass on to our children will likely be a frightening one, damaged beyond repair. And not just in the distant future, but soon, within our own lifetimes.

The US government has been embarrassingly missing in action on this issue. But heck, why wait for them? Tired of wringing my hands and waiting for public leadership on climate change, I had a sudden brainstorm. My government may refuse to endorse the Kyoto Climate Change Treaty – but why can't my family do so personally? My husband and I and our two boys, ages 6 and 8, decided to commit to cut our own household greenhouse gas emissions in line with the treaty requirements. Our goal: cutting at least 26% -- gulp -- by 2012 (the treaty requires a cut of 7% below 1990 levels, but because emissions have climbed steadily since 1990, the cutback must now be steeper).

Having signed on to Kyoto, our first step was measuring current greenhouse gas emissions from our house and cars, as a baseline. We sat down one evening with a pile of bills and receipts and a couple of beers, totaled up all the therms and kilowatt hours, and used an on-line conversion chart to calculate our emissions. The depressing result – our household emits fully 79,000 pounds of carbon dioxide into the air each year, about 15% more than the average US household of 4. And US households emit far more than their counterparts around the globe. Now we really felt terrible! And thought about why our numbers were so high. We live in a big, high-ceilinged, 150-year old Victorian house, tough to heat (bad). We renovated it 8 years ago, with new appliances, heating system, and windows (good), but energy efficiency wasn't a top priority at the time (bad). We live in a city, and drive fairly little (good). But our two cars – a minivan and a station wagon -- are both large and get shockingly low gas mileage (bad).

Determined to cut our emissions, we scoured our house to identify energy-wasters, and developed the following list of top priority actions:

- Unplug the old fridge in the basement, quietly burning up energy so we can have cold beer for parties;

- Replace incandescent lights wherever possible with new compact fluorescents (which produce nicer light than I'd expected);
- Solve a persistent and tricky problem with our heating system, which keeps the heat always on in one zone;
- Turn the thermostats down a couple degrees during the day and several more at night (note to self: purchase snazzy new vest for wearing indoors);
- Wash clothes in cold water, and air-dry them on a drying rack;
- Get serious about turning lights and other things off whenever possible (our boys have taken this on with fervor);
- Replace our 25-year old TV with an Energy Star model;
- And – biggest decision of all – replace our old minivan with a Prius.

Having made these and a host of other smaller changes, we are eager to see how we're doing. Thus the daily trips to the basement meters, for instantaneous feedback. Why wait for the monthly bill? The good news is that our energy usage has indeed dropped over the past three months – with electricity down 39%, gasoline down 57%, and natural gas down 15% compared to last year for this period. The result: our overall carbon emissions have dropped by fully 23% in a matter of months. We find that simply tracking our progress has gotten our competitive juices flowing – now we want those numbers even lower, even faster! We are confident that we can in fact exceed our Kyoto obligations well before 2012, by replacing the last few single-glazed windows we have, adding some insulation, and putting on storm doors.

The surprisingly speedy drop in our emissions and fuel bills achieved through some reasonably painless conservation measures has encouraged us to reach for even bolder goals. We have begun to consider replacing some of our home's conventional gas and electric fuel with energy from renewable sources such as geothermal or solar. Indeed, the global community will need to quickly move beyond Kyoto goals by switching to renewable energy sources in order to actually halt the destructive global warming process now underway.

We, and this country, still have a long way to go. But think of it this way. The carbon emissions of only 2% of US households, roughly the number of households in my state of Massachusetts, are larger than those of 153 other countries, and comparable to those of entire countries such as Norway or Switzerland. If we decided to act together to cut our use of fossil fuels, it would reverberate around the globe. Why wait for our government to act? As they say, if the people will lead, the leaders will follow. The world's children, including my own, are counting on us.

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February 2008 update:

I am pleased to report that our 23% carbon reduction has now just about doubled – to an overall cut of 45% from calendar year 2005 to 2007. Our gasoline usage continues to be less than half what we used to use, due to a combination of the switch from minivan (12 MPG) to Prius (40 MPG) and driving some 15% less total miles through more careful

planning of our car use. Electricity usage has continued to come down, to now roughly half what we used to use, through a combination of things: religiously turning off of lights and other things when we are not using them, air-drying the laundry, switching most lights to CFLs, switching a couple of large appliances to Energy Star versions (washing machine and dishwasher), etc. And over the past year our gas usage, our Achilles heel in this large house, has come down significantly as well – by 36% from 2005 to 2007 – after we replaced our heating system with a much more efficient system and completed a significant insulation and air-sealing project in our basement and attic.

The simple act of measuring and paying attention to our usage continues to drive our progress. And we have become further motivated to attack climate change in other ways – purchasing carbon offsets for travel, purchasing green power where possible, and leading Low Carbon Diet groups in Jamaica Plain to help spread the word to friends and neighbors. There are so many ways to address climate change, once one begins to pay attention.