

Dear Dr. Attari --

I read with interest the article in the NYT Green blog today, available at this link:

<http://green.blogs.nytimes.com/2010/08/18/delusions-abound-on-energy-savings/> ,

regarding your paper, "Public Perceptions of Energy Consumption and Savings," published in PNAS Plans.

I downloaded your paper with this link:

<http://www.pnas.org/content/early/2010/08/06/1001509107.full.pdf> ,

and your "Supporting Information" document with this link:

<http://www.pnas.org/content/suppl/2010/08/08/1001509107.DCSupplemental/pnas.201001509SI.pdf>.

I was dumbstruck, however, by the assertion in your paper that line-drying clothes is less of a household energy saver than is changing the temperature setting (from hot to cool) on the washing machine. Upon investigation, I believe that this assertion is wildly inaccurate.

A companion document to your paper, "Supporting Information," reports the power rating of a clothes dryer to be either 1,800W or 5,000W, with a mean of 3,400W (Table S1). Table S2 reports the energy savings from changing the washing machine settings from hot water, warm rinse to warm water, cold rinse to be 4,000 Wh.

Presumably, the juxtaposition of the 3,400W power rating of a clothes dryer with the 4,000 Wh savings from resetting the washing machine, served as the basis of the assertion in question.

I believe that the latter (4,000 Wh) figure is a gross exaggeration. It is referenced to a Rocky Mountain Institute report that I was unable to access with the link provided in the document. However, the document which provided your power ratings for clothes dryers, above -- a DOE report available here: http://www.energysavers.gov/your_home/appliances/index.cfm/mytopic=10040 -- gives a clothes washer power rating of 350-500W. That range makes it inconceivable that changing the washing machine settings could save 4,000Wh. Indeed, even a 50% savings, integrated across a half-hour of machine operation, would barely save 100Wh -- just a few percent of the 3,400 Wh saved by line-drying clothes (assuming an electric dryer would require an hour of operation for one load, as my dryer does).

If my little exercise is valid, then what your article characterizes as a misperception (that line-drying saves more energy than does re-setting the clothes washer) would, in fact, be accurate.

FYI, my concern has several wellsprings. One is my lifelong interest in energy usage and conservation. (See <http://www.komanoff.net/lighting/> and <http://www.komanoff.net/fossil/> , for example.) Another is an incident from earlier this week, when I had to cajole my teenage sons into helping me line-dry our laundry at our vacation cabin in the Adirondacks, rather than more conveniently using the clothes dryer.

The estimated 3-4 kWh we saved by so doing would have required some 30,000-40,000 Btu worth of fossil fuels (equivalent to around 3 pounds of coal, with attendant carbon, sulfur and particulate emissions) to be combusted, had we opted for the clothes dryer. I believe our effort was well-placed, as our similar efforts by other concerned (and/or money-saving) citizens.

I look forward to your comment.

Sincerely,

Charles Komanoff
www.komanoff.net

PS: As a devout light-turn-off'er (who also uses only CFL's) and bicyclist, I hope to also take a look at your calculations and assumptions on behavioral changes in transport and home energy.