

## **Big TV = Big Electric Bill**

Are you sizing up your home in the hopes of filling it with a brand-new big HDTV screen this holiday? Not so fast. Following in the tradition of SUVs, the bigger the package, the bigger the guzzler. SUVs guzzle gas; large-screen TVs guzzle electricity.

But it's not just the size of the screen that affects energy usage; it's the technology used inside. One sobering chart comes from CNET.

The chart looks at the energy consumed by 80 different HDTVs. While there are many differences from brand to brand, one size to another, and the technology used, a few trends become really obvious.

Sort the list by the technology being used—LCD, plasma, or rear-screen projection—and you'll see LCD having a distinct advantage in requiring less power, although part of the reason for this is that LCD sets tend to be small to medium sizes, with a few exceptions. But if you sort it by cost per square inch, there's no question that rear projection is the energy-efficient winner.

It's no surprise that when you sort the list by the size of the screen, the bigger screens generally consume more power. But I was surprised to see how efficient rear-screen projections are. If you're energy-conscious but thinking big, you should be thinking rear projection.

Plasma generally consumes twice as much power as rear projection at a given size, and in the larger sizes, that often works out to over \$100 per year more to operate a plasma set. (The chart is based on 10.4 cents per kilowatt-hour, which was the national average in 2006, according to the Energy Information Administration. Here in NYC, we pay a lot more than that, so the difference between plasma and the rest is even more per year.)

One of the worst performers was the Panasonic TH-58PZ700U, using 609.53 watts per hour in "on" mode, costing a user almost \$200 annually, assuming eight hours of on time per day. Come down a bit in size and the Vizio, a 42-inch plasma, only uses 190 watts per hour.

The most random category in the table was the standby power. Standby ranged from 0.3 watts on the Panasonic TH-58PZ700U to 76 watts for the Sharp LC-65D90U. In between were TVs of all sizes and technology, in no obvious order. Most units were under 5 watts in standby, but there were about a dozen above 5 watts. It's one thing to consume a few hundred watts while you or your family is being entertained. It's quite another when you're sleeping and so is your TV, chewing up 76 watts all night long.

NOVEC, a not-for-profit distributor of energy in Virginia, posts this chart showing the average watts used by screens of the same size, just different technology.

Average Television Power Consumption Rate

Plasma: 328 watts

Rear-projection: 208 watts

LCD: 193 watts

CRT: 146 watts

Bad enough when your own monthly bill takes a hike, but as more and more people buy larger and larger screens, the impact will be felt. According the National Research Defense Council as told to The Christian Science Monitor, by 2009, when half of all new TV sales are expected to be extended- or high-definition digital sets with big screens, TV energy use will reach about 70 billion kilowatt-hours per year nationwide—about 50 percent higher than at present.

If you have any tips to share for greening your TV watching, jump right in.