Tom O'Connor cut his electric bill 80 percent, and says you can too

by Robert E. Thomas

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***As long as you have a patient spouse, don't care what the neighbors think, consider building codes 'guidelines,' can solder and enjoy a good 'hack'.**

Tom O'Connor

Tom O'Connor knows it's easy for homeowners to cut their electricity bills in half, if they set their minds to it.

O'Connor has more than one reason to know what he's talking about. He graduated from the University of Missouri with electrical engineering and business degrees, and he's a member of the both the city Water and Light Advisory Board and the Environment and Energy Commission.

Moreover, O'Connor has proven the goal can be reached, and then some.

O'Connor, 42, admits to being "efficiency crazed." He devised what he calls his energy budget and records electric usage on a spreadsheet, measuring everything that pulls a current, down to the tiny pump that feeds a small fishpond in his back yard.

O'Connor's "solar clothes dryer." A typical indoor clothes dryer uses twice as much electricity as all the lights in the house combined.

In the last six years, he has meticulously cut the electricity bill at his house in the Old Southwest neighborhood by about 80 percent. While the average homeowner pays about $80 to $90 a month for electricity, the monthly bill for his 2,000 square-foot home is less than $20, he said.

"Start by taking an inventory of your existing electrical usage," he advises. "Look at how your home uses electricity on its own, your appliances and devices, and how you personally use electricity. Having an awareness of it all is a huge step."

Lighting the natural way. O'Connor installed a solar tube and a skylight to harness the sun's rays to light his home, reducing the need for electric lighting.

O'Connor has it down to what you could call a science. He can tell you to a single kilowatt what is consumed by his cell phone chargers, computers, fax machine or cable modem and other devices. He uses power strips for turning these on and off with a remote control to reduce constant consumption.

"I like to tinker," he says. "It's kind of fun."

Step No. 2: Get to know your electric bill. "Few people know how much electricity they are using," he said. "The national average is 936 kWh a month." If you can't measure it, you can't improve it, he added, quoting Lord Kelvin (a physicist and inventor who developed the Kelvin scale of absolute temperature measurement). The average house uses 1,300 watts all the time, he said.

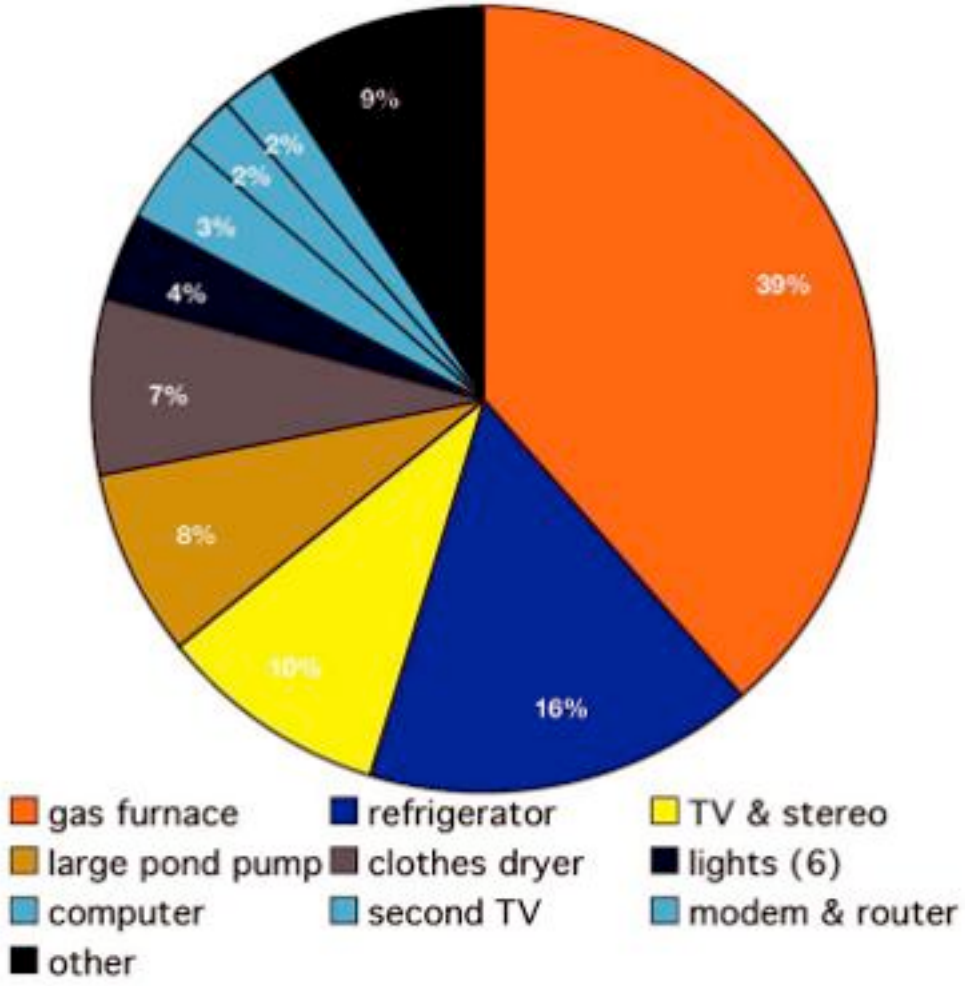
With his "Kill A Watt" meter, O'Connor knows just how much electricity his toaster, and any of his appliances, are using at any given time.

Old appliances like air conditioners, refrigerator, electric furnaces and water heaters are what he calls "big old, hungry appliances."

Eight loads in a washing machine a month uses about the same electricity as a clock radio. Four loads in the dryer uses as much as all the lights in the house combined, he said.

People set water heaters on scalding at 150 degrees and then have to use cold water to dilute it. They can save money by setting the heaters at 110 degrees, which is the temperature of water typically used in taking showers.

"Who wants to get scalded in the shower?" he asks.



O'Connor has measured the electrical usage of every appliance in his home, from his refrigerator to his computer.

He uses house fans and dehumidifiers to take the place of air conditioning. He often checks his meter and records readings on sticky notes on his refrigerator to track daily usage.

Small "Kill A Watt" brand meters that plug into electrical outlets are commercially available for about $30. Plug any appliance into the device to get instantaneous readings on how much electrical energy each appliance is consuming.

His large flat-screen television takes 270 watts. That means a three-hour football game approaches using a kilowatt-hour, which costs seven to 12 cents, he said.

More O'Connor advice: Look for help from government programs that provide incentives for reducing energy consumption, such as low-interest loans or direct rebates on appliances.

Trees and bushes shade Tom O'Connor's house, while a garden and rain barrel add finesse to his eco-friendly house.

Meanwhile, O'Connor will be busy trying to reduce his electric bill even more. Zero, he said, would be great.