An Extended Earth Day Message

For almost forty years, Americans have celebrated April 22nd as Earth Day! It's the one day out of the year where we are inundated with messages of appreciation for the rich and diverse planet we inhabit. While a worthy celebration, I'm worried Earth Day is losing its green luster.

Here's the dilemma – it is just ***one day*** filled with a ***sea of messages*** (primarily on behalf of large companies) rather than actions. It's become the best example of a corporate Hallmark holiday I can think of. And while I'm as excited as the rest of you by the sustainability transformation in our midst, I worry that Earth Day is beginning to compartmentalize our progress and marginalize the extraordinary amount of work still to be done.

Perhaps the fact that Earth Day motivates me to write this message demonstrates that its pros outweigh its cons. Nonetheless, let's hold each other accountable for the daily commitments necessary to transform ourselves towards sustainability. Let's not wait for Earth Day to celebrate our successes. And let's not allow one beautiful day in April overshadow the other 364 days in the year that Mother Earth deserves our respect.

To a generation of Earth Days!

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How we cut our electricity bill by 42.7% - Step #2 Killing Energy Vampires

We define vampire power, also termed standby power, as the electricity consumed by electrical products when they are not providing any benefit to the user (i.e. a television that's turned off, a computer in standby mode, a microwave not cooking, etc…). A study by a well respected national energy lab concluded that between 5 and 26% of a home's overall electricity use is attributable to standby losses. The co-author of that study, Alan Meier, concludes **the average American home has 40 such devices constantly drawing power.**

Unfortunately, it's not easy to calculate your exact standby power usage. You can certainly track your whole home's energy usage with the **PowerCost Monitor** or **The Energy Detective**, but that will only tell you your baseline electricity usage, not the isolated amount of electricity caused by the pesky energy vampires. More appropriately, you can use a **Kill-A-Watt** to see the electricity usage of any device at all times. It is not most accurate with small amounts of electricity being drawn, but it'll at least give you an indication.

Vampire Power Killer App #1 – The Computer Workstation
That printer, monitor, scanner, and speaker system connected to your computer are constantly using electricity unnecessarily. The computer workstation is likely the largest collection of energy vampires in your home or office:

Solution #1 – Manually Shut Off a Power Strip Every Time
Connect all devices to one surge protector and when you are done using the computer, shut the entire strip off. Or better yet, unplug the whole thing from the wall. This is potentially the most effective vampire killer, though it requires you to remember to do so (and reach the wall outlet) every time.

Solution #2 - Install a Smart Power Strip that will automate the shutoff process for your vampire power culprits. The Smart Strip will sense when your computer is on or off (or even on or in standby). As soon as the computer is shut down or into standby mode, the smart strip will disconnect the other peripherals from the electric grid - without you having to remember a thing! It also makes it very easy to keep certain plugs on at all times like a wireless network. This is the vampire killer I use for our home office.

Solution #3 - Install the Isole Power Strip from Watt Stopper
Much like a Smart Strip, the Isole will disconnect an assortment of plugs from the electric system when it does not detect physical activity. It's essentially a motion-based power strip. This is the vampire killer we use in our offices.

Vampire Power Killer App #2 – The Entertainment Center
Solution #1 - Manually Shut Off a Power Strip Every Time
Same concept as Solution #1 above.

Solution #2 - Install a Smart Power Strip that will automate the shutoff process for your vampire power culprits. The Smart Strip will sense when your television or audio receiver is on or off. As soon as the main device is shut down, the smart strip will disconnect the other electronics from the electric grid - without you having to remember a thing! It also makes it very easy to keep certain plugs on at all times like a Tivo or DVR. We use these throughout our home**.**

Vampire Power Killer App #3 – The Microwave
Solution #1 - Manually Unplug it Every Time

Solution #2 - Install a Bye Bye Standby that turns any outlet into a remote controlled outlet. Now you do not have to worry about reaching behind the microwave to kill its standby power.

Vampire Power Killer App #4 – The Gadget Chargers
Solution #1 - Manually Unplug It Every Time

Solution #2 - Schedule the Recharge

By hooking up your iPod and cell phone chargers to a digital timer you can schedule them to charge for only 2 hours in the early morning, enough to fully charge yet cutting the wasted energy during the other 22 hours of the day.

Recapitulation: How we cut our electricity bill by 42.7% - Step #1 Commit to Ending Energy Waste

Way back in November 2008 we started a multi-part series focused on proven methods to reduce your electricity usage. It's all based on our employee's quest to reduce our collective energy footprint. Just to refresh your memory we've re-printed most of Part I:

So when we moved into our home five years ago we immediately switched all lighting to CFLs, we installed programmable thermostats, we chose Energy Star appliances, etc... Well, even after starting with an energy-efficient home - **we still cut our electric bill by 42.7%** year over year.

For the 12 months ending 6/1/2007 we used 11,547 kWh of electricity. For the 12 months beginning 6/1/2007 we used 6,617 kWh. During that time, we grew our family and still used the AC. Over the next several newsletters, we'll highlight the key changes our family implemented to create these energy improvements. It's surprisingly easy for you to implement these too**.**

Step #1 - Make the Commitment to Stop Wasting Electricity
Oddly enough, the highest impact change was also the most cost effective to implement. We got together as a family and decided we were going to manage our overall energy use better. We started tracking our bills and monitoring our energy behavior. We installed a PowerCost Monitor that displays the cost and overall amount of energy being consumed at all times throughout the home. Every time we go to bed and leave for work in the morning, we make sure the home energy use is less than 0.4 kW - our night time and unoccupied energy load. You'd be amazed how many times we've realized that something in the home was unintentionally left on.

We also started using a Kill A Watt to begin tracking how much energy individual electronics and appliances were using at different times. Good luck with your energy improvements.

Considering a new TV?

Did you know that the average plasma TV uses more energy per year than a refrigerator, which is the biggest energy user in most US households. Flat screen TV's are available in 720 to 1080 pixels, which are the little dots of light that make up your image. Resolution only matters with a plasma TV, because each pixel is illuminated separately - therefore, a 1080 plasma TV will use more electricity than a 720 pixel plasma TV. Higher resolution in an LCD or rear-projection TV won't affect their energy use because all of the pixels on the screen are illuminated by one light source.

No matter which TV you choose, it's important to remember size matters! If you swap your old 26 inch television for a monstrous 52 inch plasma TV, you are not going to save energy.

Your most efficient option is an LCD TV less than 42 inches. CNET.com rated 128 flat-screen TVs by their energy use in October. Check it out.

If you choose an LCD, you'll want to have the screen calibrated to a medium level of backlighting- instead of the torch-bright backlighting the manufacturer sets it to so the screen will look nice when displayed in stores. Check your manual to see if the set has a "home" setting you can select, or call an electronics professional to calibrate your TV. It will save energy and keep your TV from burning out quickly.

Also, remember that TVs leak power even when turned off. Plug your TV into an energy saving Smart Strip Surge Protector to stop those leaks.