

# Clean Air Clean Power

## *Computers- High tech with low emissions*

Here's an easy way to reduce electricity use, hydro bills, smog and greenhouse gas emissions.

I was told – incorrectly - that computers should be left on constantly, with just the monitor turned off overnight. After some investigation in my office, I discovered that the older units - Pentium 2 and earlier - draw 300 Watts (W) with their CRT (TV-type) monitors on. That's like running three 100W light bulbs all day! Even with the monitor off, they draw 200W. The newer PCs can be set to go into a 70W standby mode after a period of inactivity. Even with the computer off, the speakers and other peripherals draw 20W.

Just as computers have increased in processing power, they have become more energy efficient. My newest units, which are Energy Star compliant and have efficient LCD flat screen monitors, only draw 100W with the monitor on. On standby, they draw 10-30W. Several of our computers are laptops, which use just 20W on average and 1-2W on standby.

What can you do to reduce power consumption?

1. Shut down your computer and monitor at night or when not in use.
2. Enable standby on your PC. In the Control Panel, go to Power Options. Change your settings to turn off the monitor and hard drive automatically after 5 minutes of inactivity, and go into System Standby mode after 15-30 minutes. When leaving your desk, you can go directly into Standby mode by clicking "Start", "Shutdown", then choose "Standby".
3. If you need a new computer, get an Energy Star rated unit and consider buying a flat LCD monitor or a laptop.
4. Turn off speakers, scanners and printers overnight. Everything should be plugged into a surge protector power bar, and you can simply turn that off.

I now shut my office computers down overnight. During the day, they go on standby after 30 minutes of idle time. As older workstations wear out, I will consider replacing them with laptops.

### **The Cost:**

Nothing, just a few minutes to shut down and reboot the next day.

### **The Payback:**

I have 8 office computers. By only having them on for 8 hours a business day, I save \$100/year per older computer and \$10/year for the newest ones. If I had older desktop PCs running 24 hours a day with monitors off overnight, hydro costs could add up to \$1100/year. The cost is higher in summer, when the air conditioning has to handle the extra heat from the computers. My current hydro cost for computers is about \$160 per year – an 85% saving by buying some newer units and shutting them all down overnight. When I retire the oldest computers and replace them with efficient ones, my bill will be \$70 per year.

### **The Environmental Bonus:**

If one out of 10 households and businesses in Caledon shut down an older desktop computer that is currently left on overnight, we would save enough power to run 200 households. Over a year we'd prevent 1,900 tonnes of carbon dioxide emissions and reduce sulphur dioxide, nitrogen oxide and mercury pollution.

If your computer is older, you can meet your share of Canada's Kyoto target by taking this single step. You can do this for your Caledon Countryside Alliance 'Step Up To Kyoto' pledge, as discussed in previous articles. Please see <http://www.woodrising.com/cca/stepup.htm> for more information.

If you would like to learn more about the Caledon Clean Air Clean Energy Program, you can reach us at [greenenergy@woodrising.com](mailto:greenenergy@woodrising.com), 519-927-0548.

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**Step Up to Kyoto. Future generations will thank you a tonne.**