

# Computer Power Settings Toolkit

This toolkit will help you to update the power settings on the computers in your department to improve energy efficiency.

## Background Information

The Lower Mainland Health Authorities use approximately 290,000,000 kWh of electricity annually. This is enough electricity to power about **26,364 homes for a year**. While BC currently benefits from clean hydro power to meet electricity needs, demand is expected to outstrip our current capacity by 40% in the next two decades. How can BC close this gap? Significant energy savings can be achieved by being smart with how we use energy.

Your computer must be left on after-hours; however you can turn off the monitor. A computer monitor uses about 40 watts of power when on, about 10 watts in sleep mode and almost none when off. Sleep mode and turning the monitor off is not the same thing. While electronics and appliances do use less power in standby than when they are on, they are still drawing power, in some cases 10-15 watts. Several studies have found that between 5-10% of total electricity usage is from appliances and electronics in standby/sleep mode.

One monitor using a few watts may not seem like much, but when multiply that by the thousands of monitors and countless other pieces of electronic equipment belonging to each Health Authority, the numbers add up. Also, screen savers are not energy savers; complex screen savers can actually increase energy use. Turning your monitor off will not affect the programs you are working on.

## The Big Picture

This toolkit is part of a broader initiative to reduce the Lower Mainland Health Authorities' energy use, and to foster a workplace culture where everyone works together to help reduce the energy demand of electronic equipment.



# Steps

**NOTE: Some employees do not have access to change their computer's power management settings. If you encounter this barrier, please contact Service Desk.**

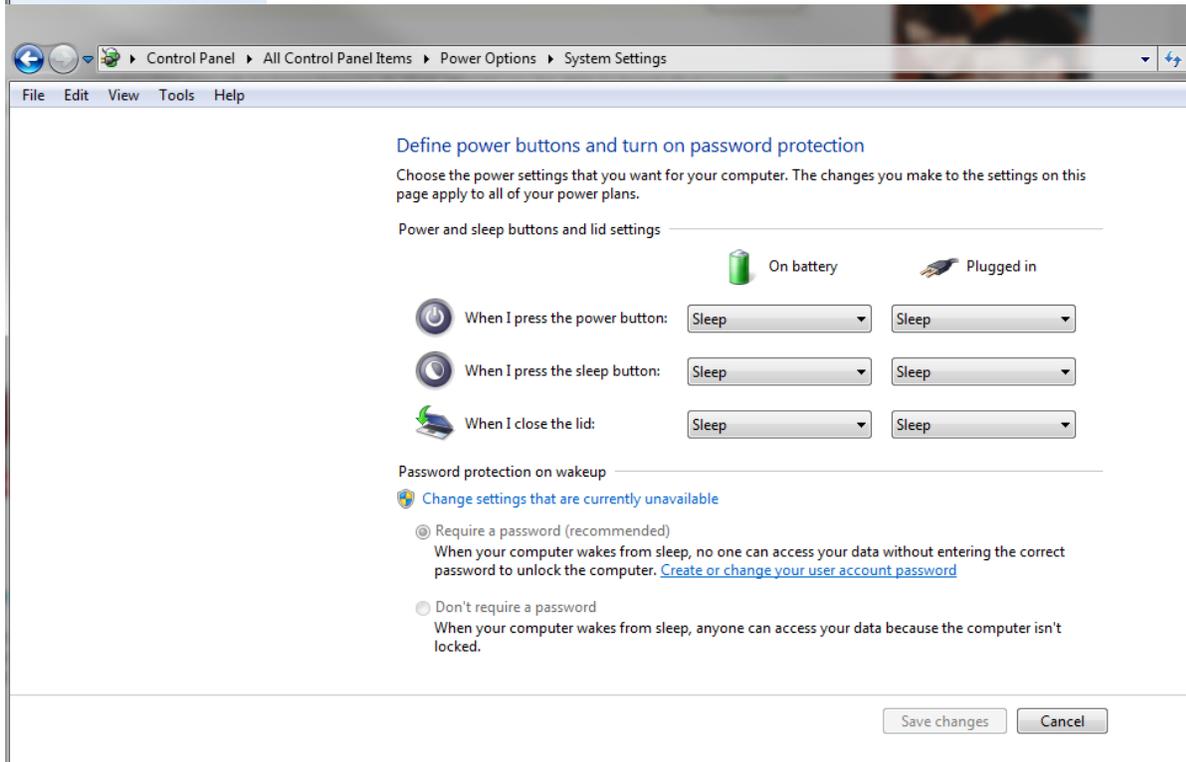
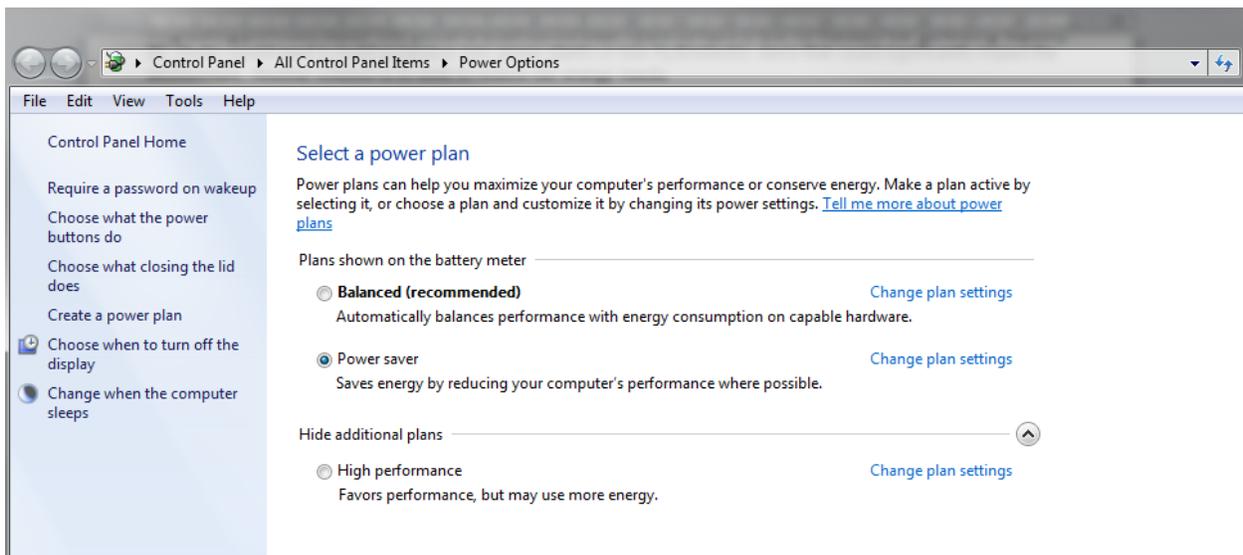
## Step 1 – Change your own power settings/review the instructions

On Windows 7, click on the START button,

Then click SETTINGS, then click CONTROL PANEL.

Then double-click on the POWER OPTIONS icon, and choose *Power Saver Option* (see screen shot).

Optional: You could click on Change Plan Settings to further customize.



## **Step 2 – Engage coworkers to update their computer power settings**

Choose a manageable number of colleagues who you can help to change their computer power settings. Remember, you can always expand your efforts after you've engaged a few people. The following email template can help spread the word.

### **EMAIL Template**

Subject: Take this easy step to improve your computer's energy performance

[Insert Health Authority Name] have committed to being leaders in environmental sustainability. This includes a focus on getting smart about our energy use.

One simple change to the energy management settings on our computers can help us reach this goal. You only have to do it once to save energy year-round.

The default setting for most computers is always on, but we can change the settings to automatically turn off the monitor or put the computer in standby after a set period of time.

I'll be contacting you to find a time to help update your computer's energy management settings.

Let's work together to meet health authorities' energy reduction targets!

Thank you!

## **Step 3 – Support coworkers to make the change**

Visit each of your co-workers and lead them through updating the energy management settings on their computer. Remember to update common or shared computers as well.

If you receive an "Access is denied" warning when you try to update the energy management settings, please contact the Help Desk to update the settings for you.

## **Step 4 – Measure your savings**

Determine how many computers in your department have had their energy management settings updated. Use the "Equipment" Worksheet in the [Energy Savings Calculator](#) can help you calculate the energy savings associated with changing the power settings on computers in your workplace. Please forward this information to [olive.dempsey@fraserhealth.ca](mailto:olive.dempsey@fraserhealth.ca)

## **Step 5 – Share you Success**

Sharing your success with other Green + Leaders can be motivating and can help support others as they try new tactics and approaches. We also love telling success stories on the [GreenCare Community](#) site, so share your story with us.

# Fast Facts: Energy + Computers

## Health Authority

- ✓ Energy conservation can enhance human health by reducing GHG emissions, improving outdoor air quality and decreasing acid rain.
- ✓ Over 97% of our reported greenhouse gas (GHG) emissions come from health care buildings within the LMHOs, making health care one of the most energy intensive sectors.
- ✓ Our target is aligned with the Provincial mandate of reducing the public sector's carbon footprint 33% by 2020.
- ✓ While the LMHOs' overall energy consumption has increased since 2007 – due to facility expansions and increased health care services – our energy conservation measures have resulted in a **decrease in energy intensity** (*i.e.* amount of energy used per square foot): -9.3% Fraser Health, -0.7% PHC, -2.5% PHSA and -10.2% VCH.

## Computer Energy Use

- Typical computers use 92% less energy in sleep mode than while switched on.
- Turning a computer on and off does not effective the life of your equipment. Hard disks in PCs older than 10 years did not automatically park their heads when shut off, leading to disk damage from frequent on/off power cycling. Newer PCs are designed to handle over 40,000 on/off cycles, a number unlikely to be reached during a computer's typical life span.
- Laptops are more energy efficient than desktops, consuming up to 80% less electricity.
- Your monitor's screen saver uses as much energy as when the monitor is working (on average 40 watts).
- If your monitor was switched off for an additional hour each day, over the course of a year, you would save enough energy to power an entire household for 9 hours.

## Contacts

For help using this toolkit, please contact the Green + Leaders Program Lead,  
[sarah.currie@fraserhealth.ca](mailto:sarah.currie@fraserhealth.ca)

Visit <https://bcgreencare.ca/framework/energy-conservation> for more information on GreenCare's energy-related initiatives.