



INFORMATION TECHNOLOGY SERVICES

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## **Division of Administration (DOA)**

### **Desktop Support**

#### **Computer Power Conservation Settings for XP & Vista Operating Systems**

##### ***XP Power Options Overview***

Using Power Options in Control Panel, you can reduce the power consumption of any number of your computer devices or of your entire system. You do this by choosing a power scheme, which is a collection of settings that manages the power usage by your computer. You can create your own power schemes or use the ones provided with Windows.

You can also adjust the individual settings in a power scheme. For example, depending on your hardware, you can:

- Turn off your monitor and hard disks automatically to save power.
- Put the computer on standby when it is idle.
- Put your computer in hibernation.

##### ***Managing Your Monitor***

Power management of your display screen is something that almost everyone is used to these days. It's a good idea to shut off your display when you're not using it, even when you're running

a laptop computer. Although laptop displays don't use as much power, it's still a relatively big power consumer.

## ***Reducing Power Consumption by Your Hard Drive***

The two biggest users of power on your laptop are the display and the hard drive. Windows XP lets you tell your hard drive to stop spinning when you're not actively using it, allowing you to save energy.

## ***Putting Your Computer on Standby or Hibernate***

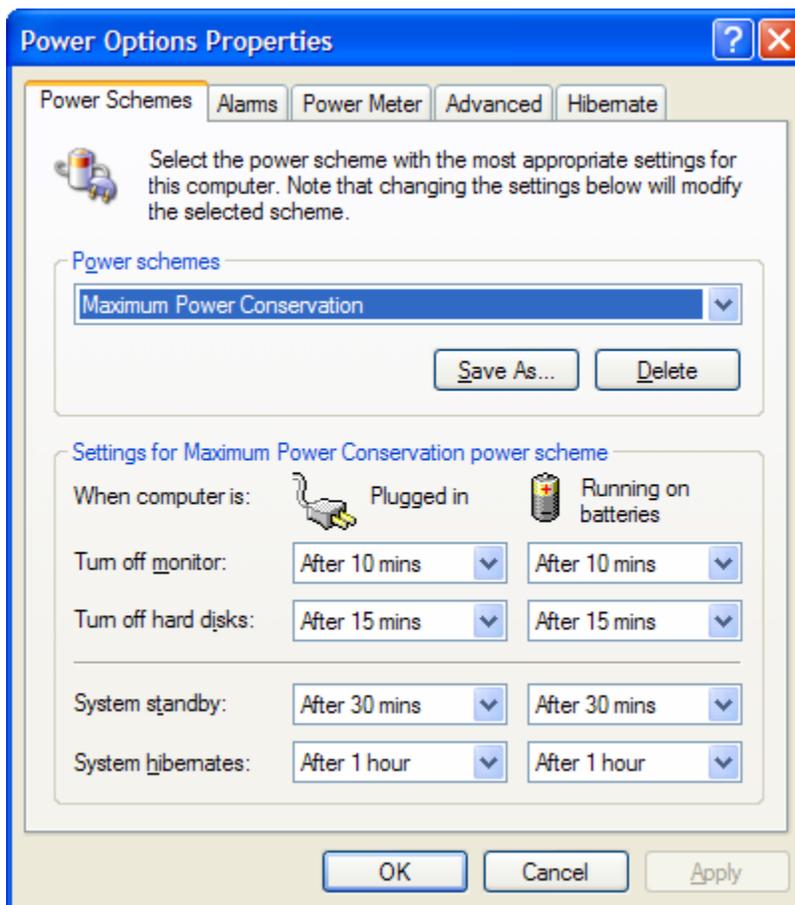
While on standby, your entire computer switches to a low-power state where devices, such as the monitor and hard disks, turn off and your computer uses less power. When you want to use the computer again, it comes out of standby quickly, and your desktop is restored exactly as you left it. Standby is not appropriate for long term use—on many laptops, overnight is probably pushing it on standby. And it has one important limitation—everything is in memory, not yet saved to the hard drive. **Because Standby does not save your desktop state to disk, a power failure while on Standby can cause you to lose unsaved information. Therefore, this feature is not being recommended for general use by the DOA Desktop Support Team, and comes with a “use at your own risk” warning.**

The Hibernate feature saves everything in memory on disk, turns off your monitor and hard disk, and then turns off your computer. When you restart your computer, your desktop is restored exactly as you left it. It takes longer to bring your computer out of hibernation than out of standby. **Hibernate** mode writes an image of what you're currently working on to a special file on your hard drive, and then shuts your computer almost completely off. It takes a bit longer than Standby, since it needs to write to your hard drive. Hibernate also takes a bit longer to resume, since you must go through essentially the normal boot process, although in Windows XP your computer wakes faster from Hibernate than in previous versions of Windows. The advantage is that you can leave your laptop in Hibernate mode for days without any ill effect. When you start it back up, you'll see everything exactly as you left it. **Using the Hibernate feature is not recommended for those people and/or departments that have data backups scheduled at night as the backups will fail if the PC is in Hibernate mode. It is, however, being recommended for use**

by laptops on battery power to help prevent the battery from running down completely and causing data loss at system shutdown.

***Note: Turning off peripherals such as printers, scanners & speakers when not in use can save a significant amount of energy.***

***Maximum Power Conservation Settings for XP.*** See warnings in red above concerning usage of Standby & Hibernate Modes.

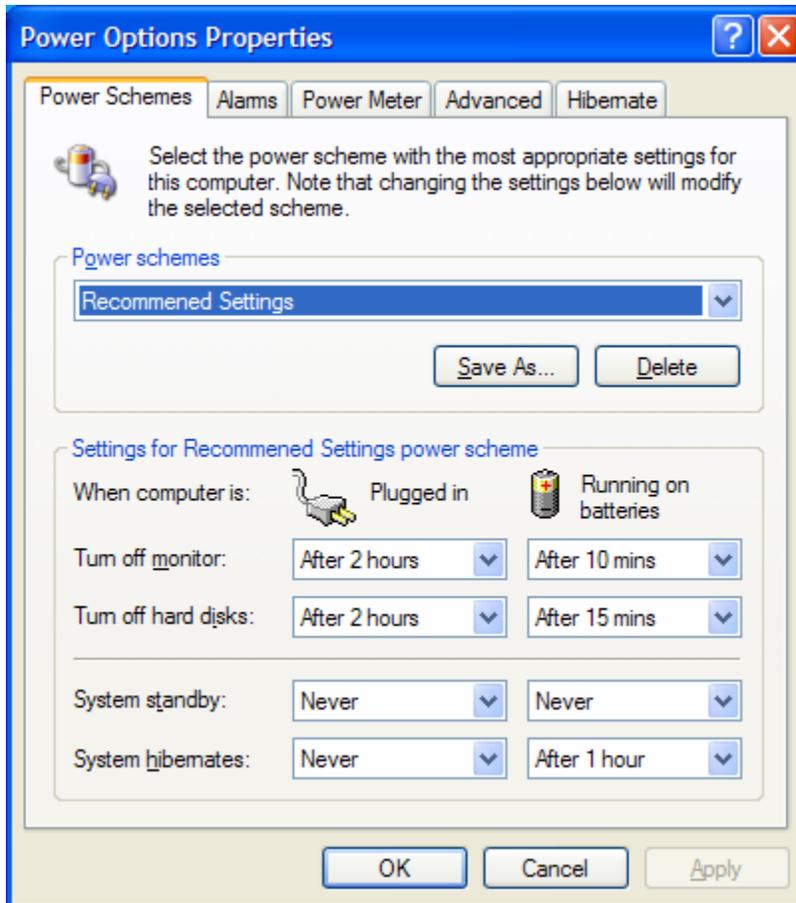


### ***Recommended General Power Settings for XP***

Using Power Options in Control Panel, you can adjust any power management option that your computer's unique hardware configuration supports. Because these options may vary widely

from computer to computer, the options described may differ from what you see. Power Options automatically detects what is available on your computer and shows you only the options that you can control. To configure your power settings:

1. Click **Start**, click **Settings, Control Panel**, and then click **Power Options**.
2. Or, if you see the little battery indicator on your task bar, right-click it and then click **Adjust Power Properties**. The Power Options Properties dialog box opens, as shown below.



In the Power Options dialog box, you set options for a power scheme. Windows XP comes with several preconfigured profiles. I've shown the **Test** profile for my laptop here, but you can easily create custom profiles that fine tune the properties for your particular circumstances. You can create a new power scheme by clicking the time settings you want, clicking **Save As**, and typing a name.

## ***Enabling Hibernation Mode***

Finally, if your machine doesn't have Hibernate enabled, it's easy to enable it. If your computer is set up by the manufacturer to support Hibernate: Open the Power Options Properties dialog box and click the **Hibernate** tab to open the page shown below.



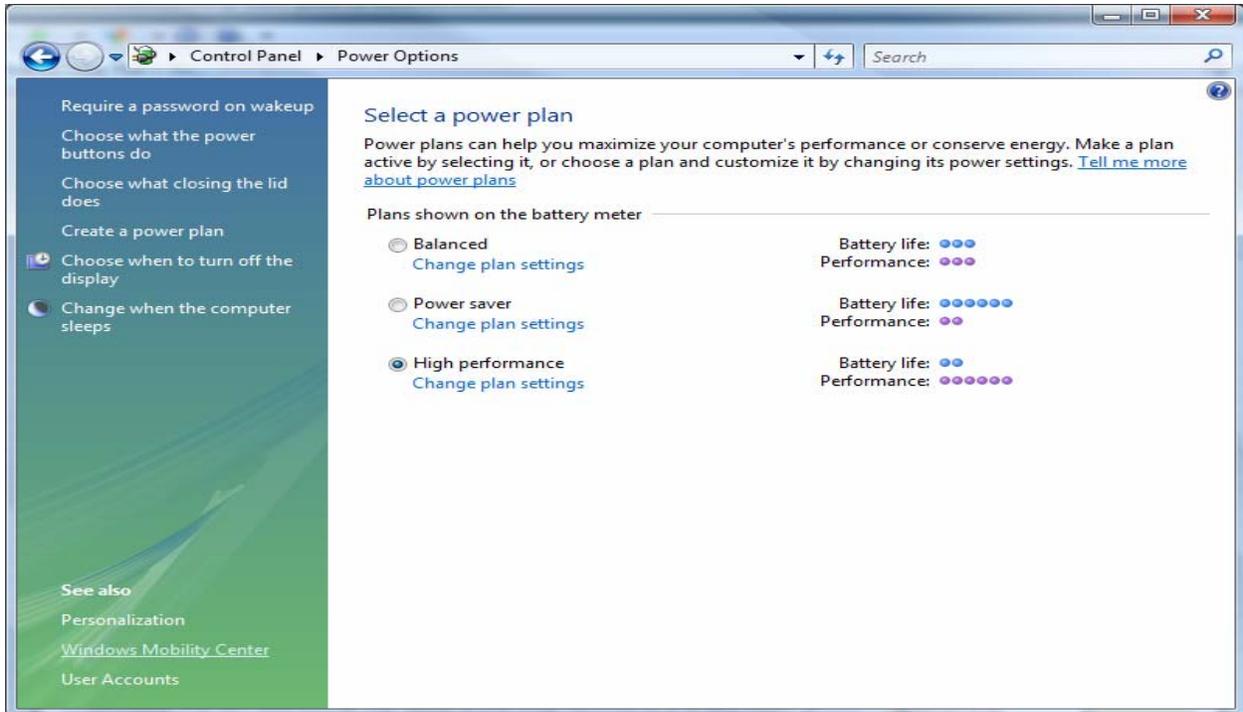
Just click the **Enable Hibernation** check box and you're all set. You will, however, need enough free disk space to hold all of your memory in a single file. This means, if your laptop has 512 MB of RAM, you'll need roughly 512 MB of free disk space on **drive C**.

## ***Windows Vista – Power Options Section of the Control Panel***

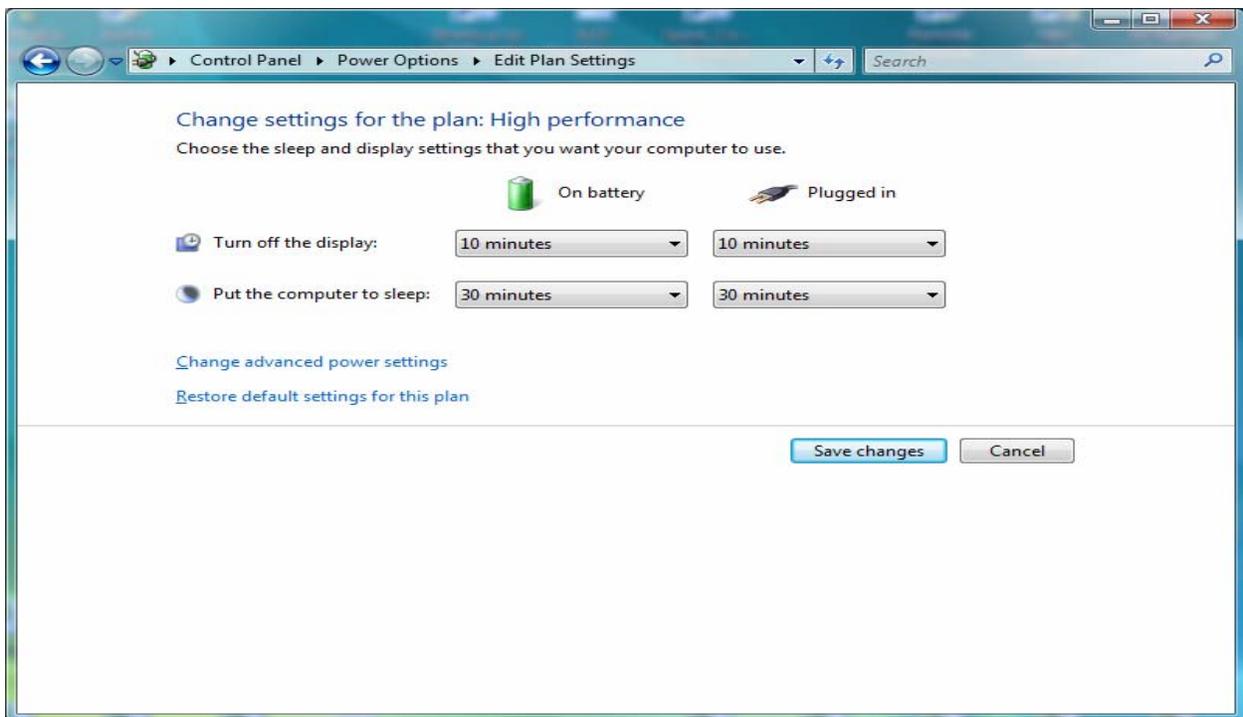
As with Windows XP, the place to manage the system's power-management functions in Vista is the control Panel, under Power Options. What you'll find, though, is that the original dialog boxes have been replaced with something completely different.

By default, Vista comes pre-packaged with three power management profiles. In XP they are called "power schemes". To select a power plan, simply click on the radio button next to its name; the changes take effect immediately.

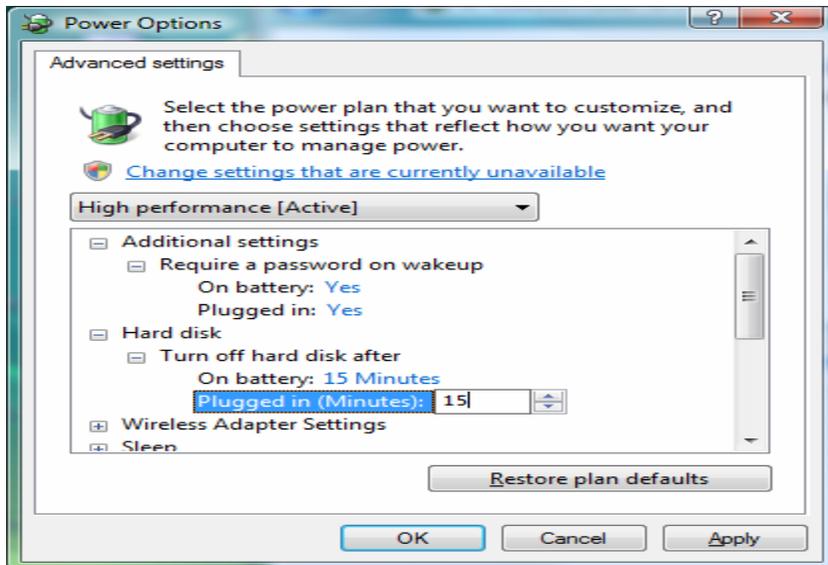
**Maximum Power Conservation Settings for Vista.** See warnings in red above concerning usage of Standby & Hibernate Modes. Choose Settings >> Control Panel >> Power Options



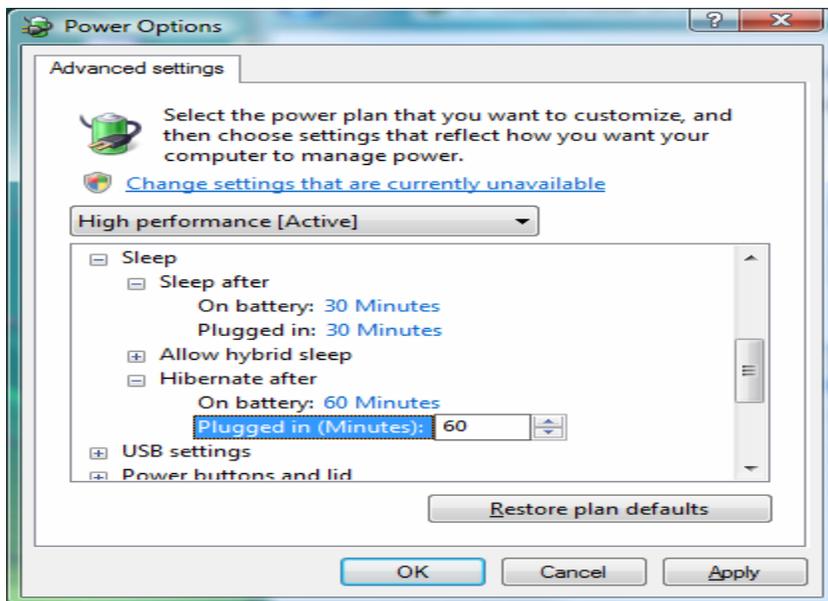
Choose High Performance >> Change Plan Settings **Note: "On Battery" category is only for laptop computers.**



Change configuration to match above – Click "Save Changes", then click "Change advanced power settings"

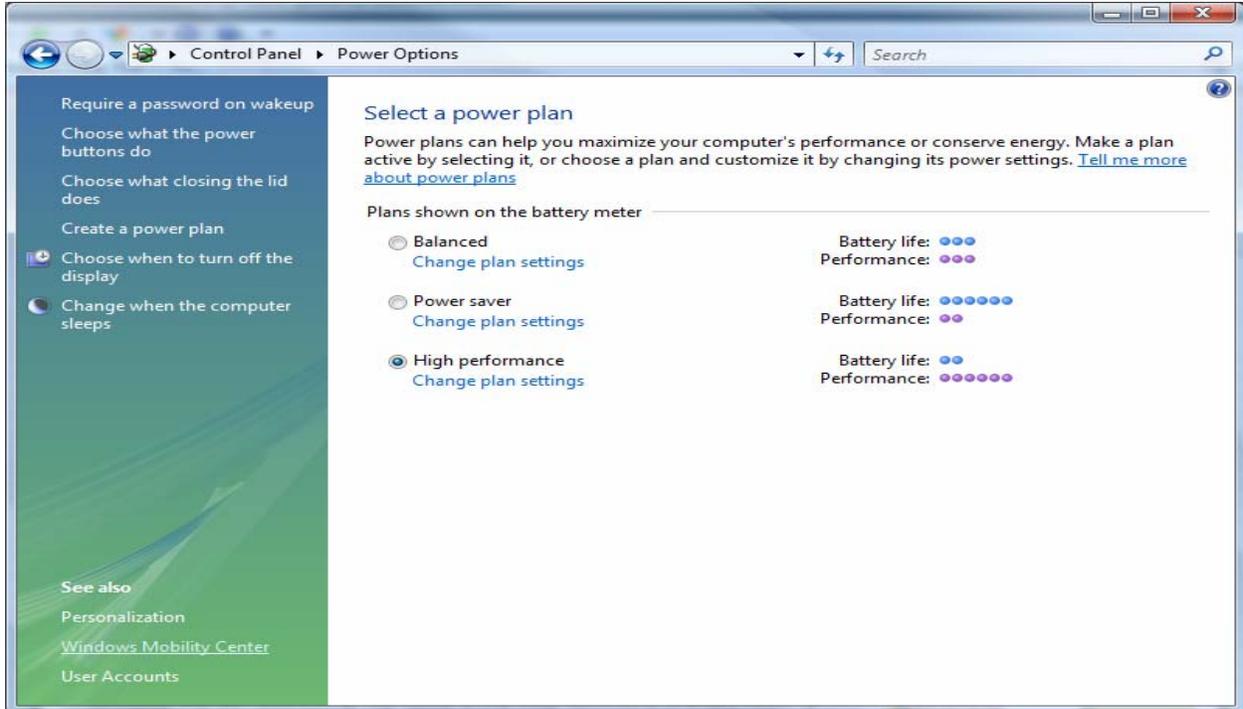


Make the above changes to the Hard Desk configuration, scroll down to the screen below:

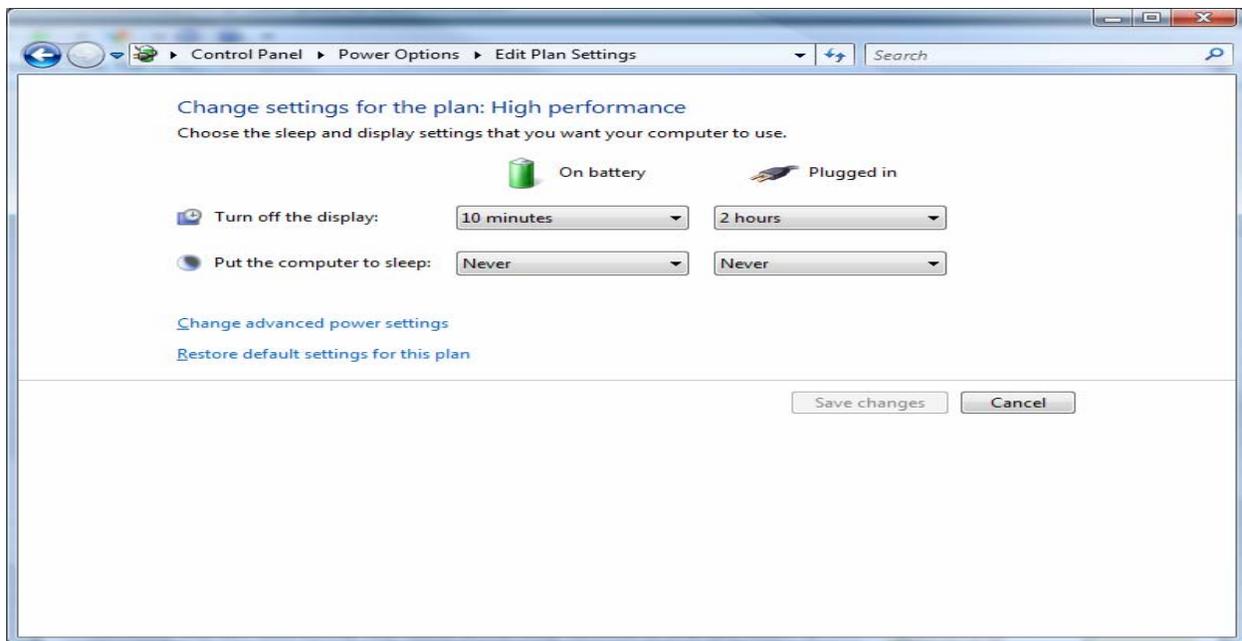


Make the above configuration changes to the Sleep configuration, click "Apply", then click "OK"

**Recommended General Power Settings for Vista.** Choose Settings >> Control Panel >> Power Options

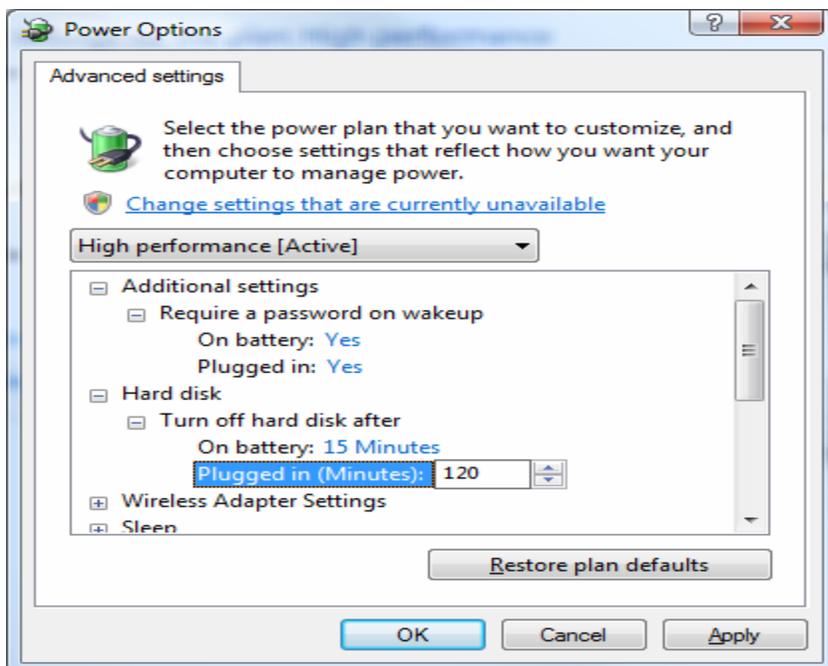


Choose High Performance >> Change Plan Settings **Note: "On Battery" category is only for laptop computers.**



Change settings to be the same as above, Choose Save Changes, and then Choose Change Advanced Power Settings

Make the following changes to the Hard disk configuration as follows then click Apply:



Make the following changes to the Sleep Configuration then click Apply:

