

How much does it cost you to  
run your computers?

(a quick overview)

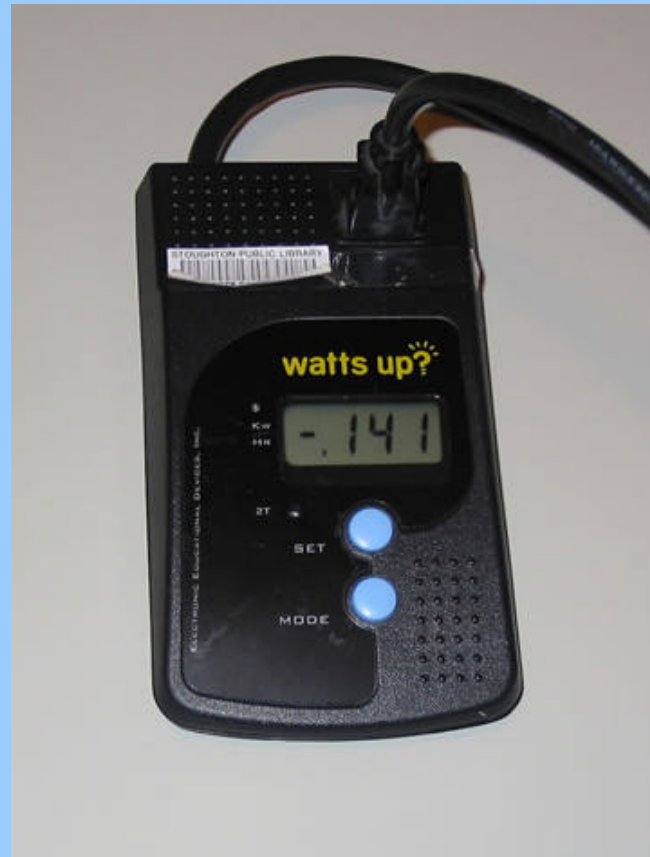
# Does shutting down your computer wear it out?

- Probably not (if your computer is less than 8-10 years old)

How much electricity does your  
equipment use?

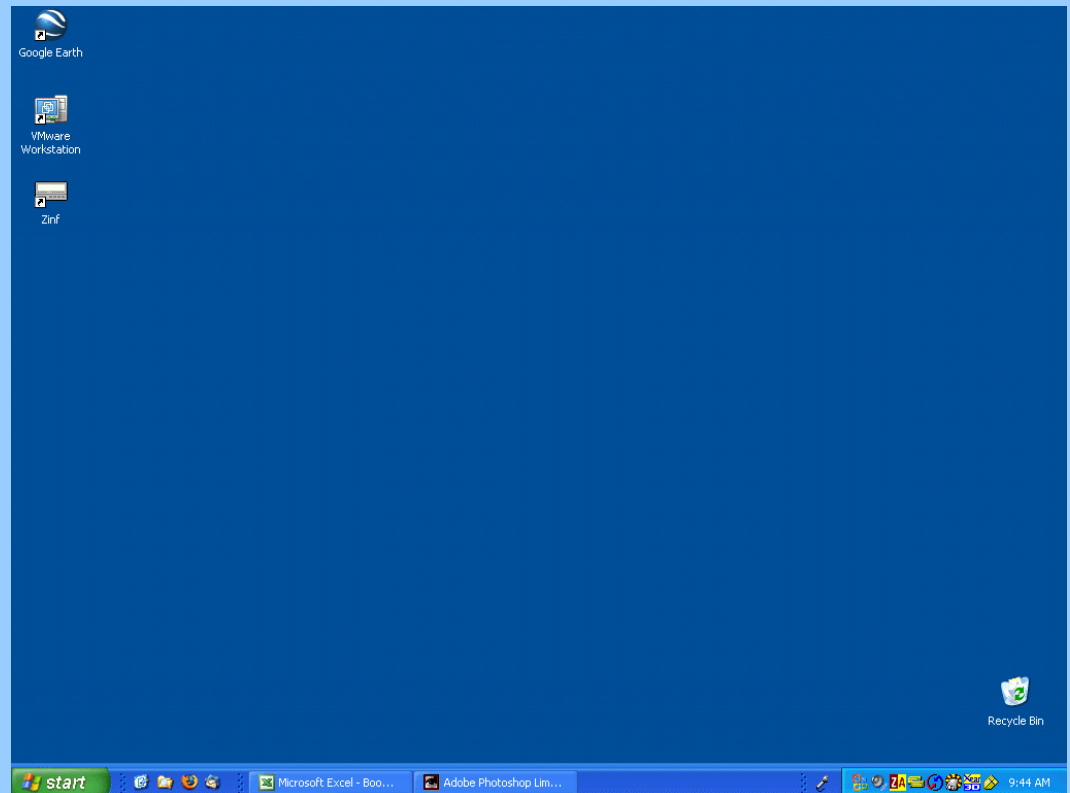
# Portable Energy meters from the Madison Public Library

- Search for “energy meter” on Linkcat.



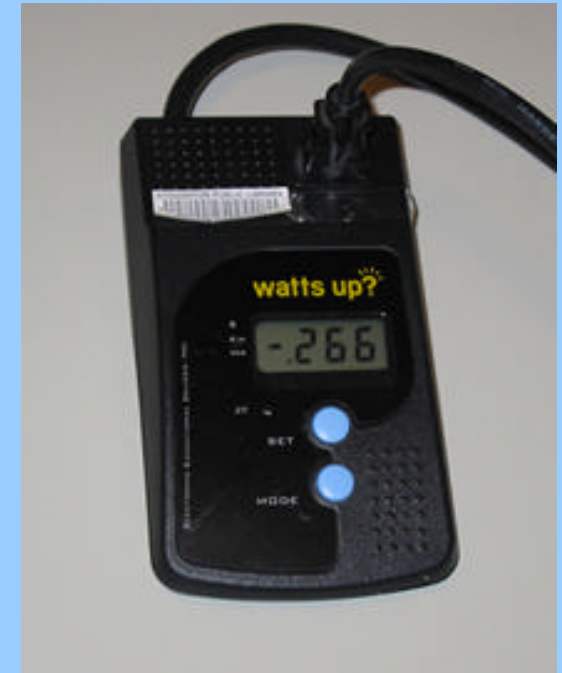
# Sample Computer system

- Athlon XP 1700+
- CDROM and DVD Burner
- 640MB of RAM
- 2 hard drives
- 17" HP monitor



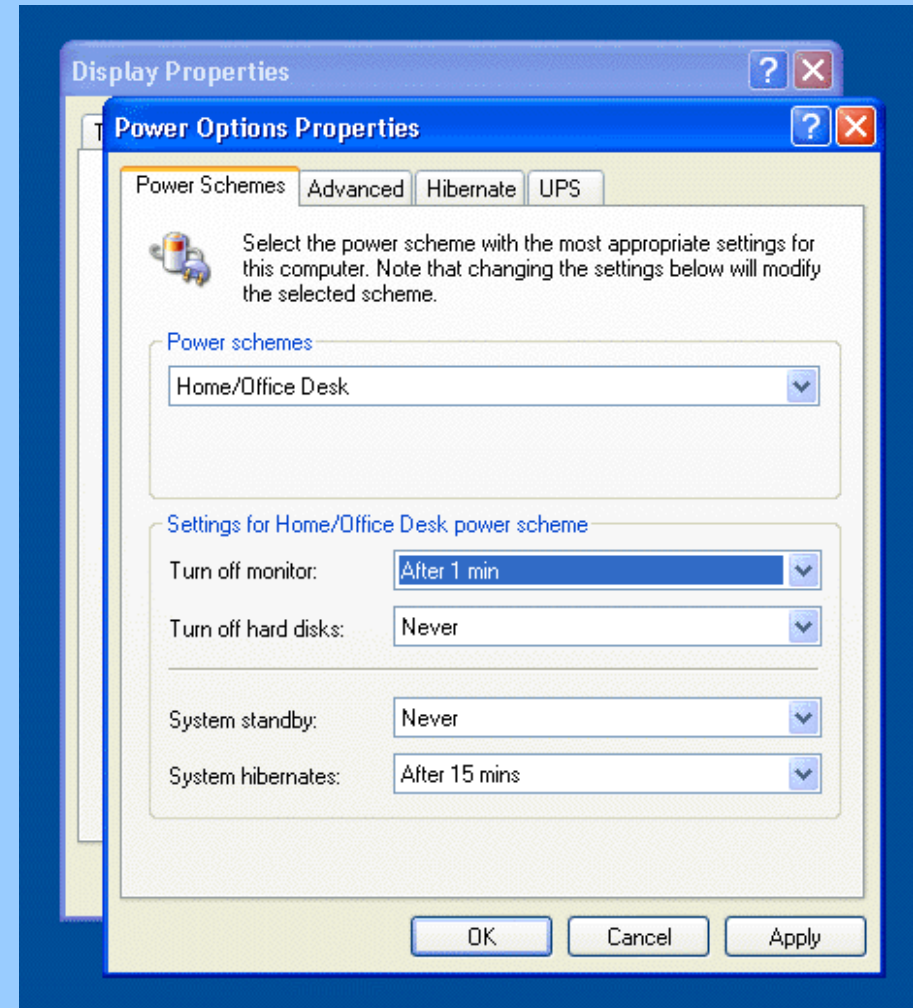
# System Power Use

- PC and Monitor: 266 watts
- PC only: 141 watts
- Monitor (white background):  
122 watts
- (note: meter results vary 5-  
10+ watts)



# Window power management features

- Turn off monitor
- Turn off hard disks
- System standby
- System hibernates



# Power saving cost chart

Computer system	Watts	24 kW hours	Cost per Day (\$0.117)	cost per Year (24/7)	Annual cost per hour
PC and monitor	266	6.384	\$0.75	\$197.94	\$11.36
PM: Hard Drive off	265	6.36	\$0.74	\$197.19	\$11.32
PM: Monitor off	152	3.648	\$0.43	\$113.11	\$6.49
PC only (Monitor off at Power switch)	141	3.384	\$0.40	\$104.92	\$6.02
PM: System Standby	89	2.136	\$0.25	\$66.23	\$3.80
PM: Hibernate	5	0.12	\$0.01	\$3.72	\$0.21

# Display background



Dark Blue



Bliss



Default Blue

# Monitor power savings chart

Monitor	Watts	24 kW hours	Cost per Day (\$0.117)	cost per Year (24/7)	Annual cost per hour
White background	122	2.928	\$0.34	\$90.78	\$5.21
XP Default background (Bliss)	104	2.496	\$0.29	\$77.39	\$4.44
Windows Default Blue	99	2.376	\$0.28	\$73.67	\$4.23
dark blue or black	96	2.304	\$0.27	\$71.44	\$4.10
Screensavers (black background)	96	2.304	\$0.27	\$71.44	\$4.10
Monitor off (Windows)	7	0.168	\$0.02	\$5.21	\$0.30
Monitor off (Power switch)	0	0	\$0.00	\$0.00	\$0.00

# Recommendations:

- Try your own power use tests
- Create a power management policy for your organization and educate your staff to use it.
- Make sure that workstations are using power management.
- Turn off monitors and computers when not in use.

# For more information:

- **Harvard Green Campus Initiative FAQ**  
(<http://www.greencampus.harvard.edu/cerp/faq.php>)
- **Energy Star: Power Management Frequently Asked Questions**  
([http://www.energystar.gov/index.cfm?c=power\\_mgt.pr\\_pm\\_faq&layout=print](http://www.energystar.gov/index.cfm?c=power_mgt.pr_pm_faq&layout=print))
- **Energy Use and Power Management in New Personal Computers and Monitors** (<http://enduse.lbl.gov/info/48581-abstract.html>)
- **User Guide to Power Management in PCs and Monitors** (<http://eetd.lbl.gov/EA/Reports/39466/>)
- **Saving Power on idle PCs**  
([http://seqvax.caltech.edu/saving\\_power.html#rawbox](http://seqvax.caltech.edu/saving_power.html#rawbox))