



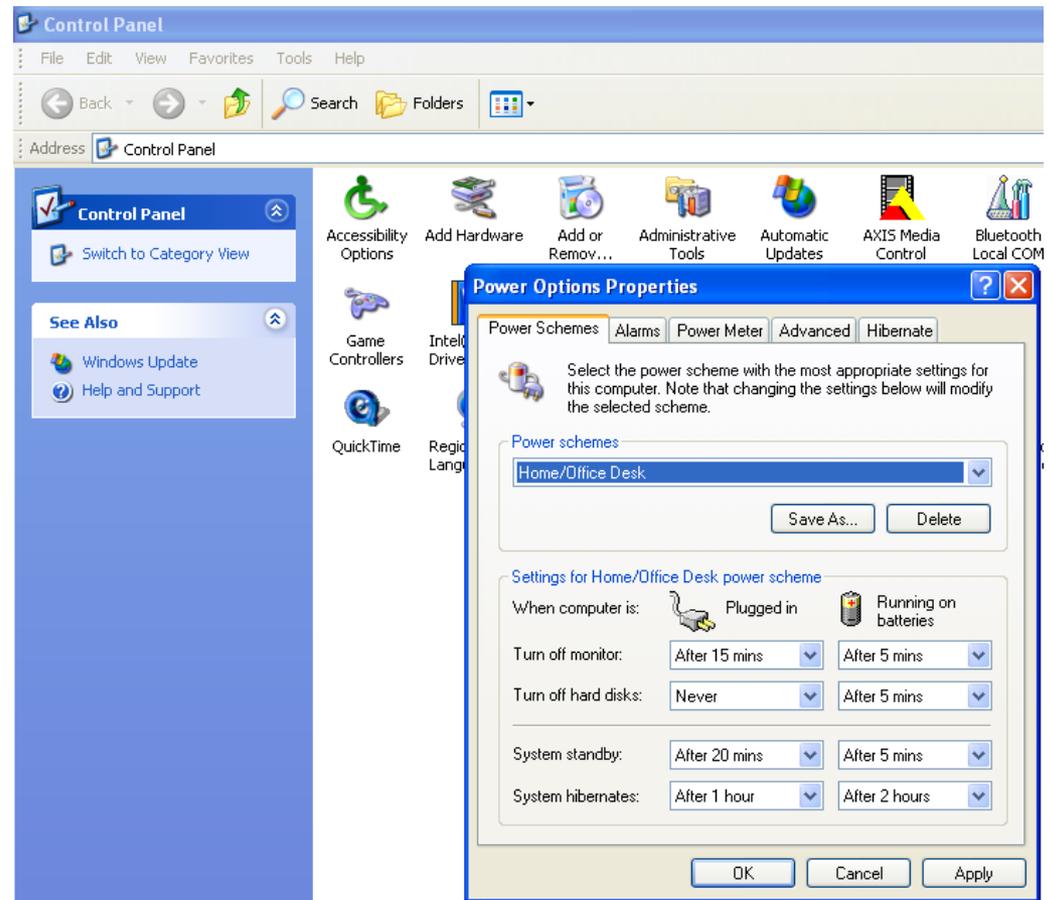
## Benefits

- Steve Ryan, ENERGY STAR Low Carbon IT Campaign Program Manager



# What is Power Management?

- System standby and hibernate place the **computer** (CPU, hard drive, etc.) into sleep mode after a pre-set period of inactivity
- Mouse or keyboard input can quickly wake computer
- Built into Windows, Mac OS X, some varieties of Linux
- Settings simply need to be activated



# Why Power Management?

- Use less electricity
  - Compelling ROI, because half of energy used to power PCs is wasted
- Reducing cooling loads
  - Typical office bldg with internal heat load and moderately efficient system saves an additional 15%
  - In southern climates savings can be 30% or more
- Reduce peak load demand charges
  - Some utilities charge up to \$200 per kW per year, many charge \$150/year
  - Roughly every 150 PCs or monitors power managed saves 1 kW of peak demand
- Executive Order 13423
  - Requires federal agencies to activate ENERGY STAR “sleep” features on computers and monitors
- Environmental stewardship
  - Prevent air pollution
  - Lower your carbon footprint



# Typical Savings for Org. with 1,000 PCs

- \$40,000\* in electricity, or \$120,000 over 3 years
  - Enough electricity to light 240 homes
- Avoid 350 tons of greenhouse gas emissions
  - Equivalent to removing 60 cars from the road
- Online calculator can quickly and easily quantify your savings
  - [www.energystar.gov/powermanagement](http://www.energystar.gov/powermanagement)



\*Assumes ENERGY STAR qualified computers; night-time turn off rate of 36%; MPM is already activated but CPM is not activated



# CPM Offers a Compelling ROI

- Labor costs: ~ \$5 per seat
  - Identifying appropriate solutions
  - Testing & troubleshooting exceptions
  - Ensuring that sleeping computers do not interfere with administrative software updates
- Software costs: ~ \$0-15 per seat
  - Many solutions are free
  - Commercial solutions range from roughly \$3-15 per PC
- Vs. benefits of ~ \$40 annually per seat (\$120-\$160 per seat over the typical service life of a PC)

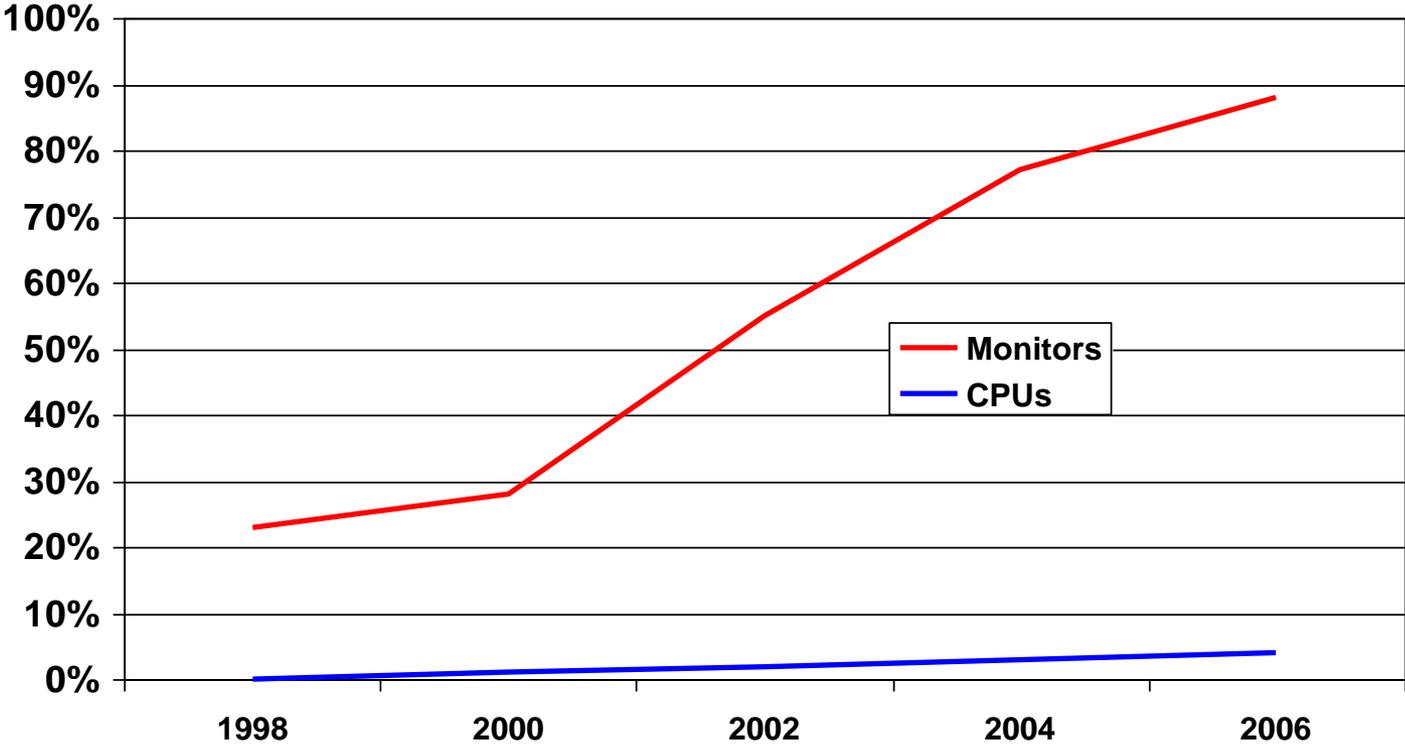
Assumptions: 1000 seats; labor costs = 2 weeks of work for one network administrator @ \$2,500 per week



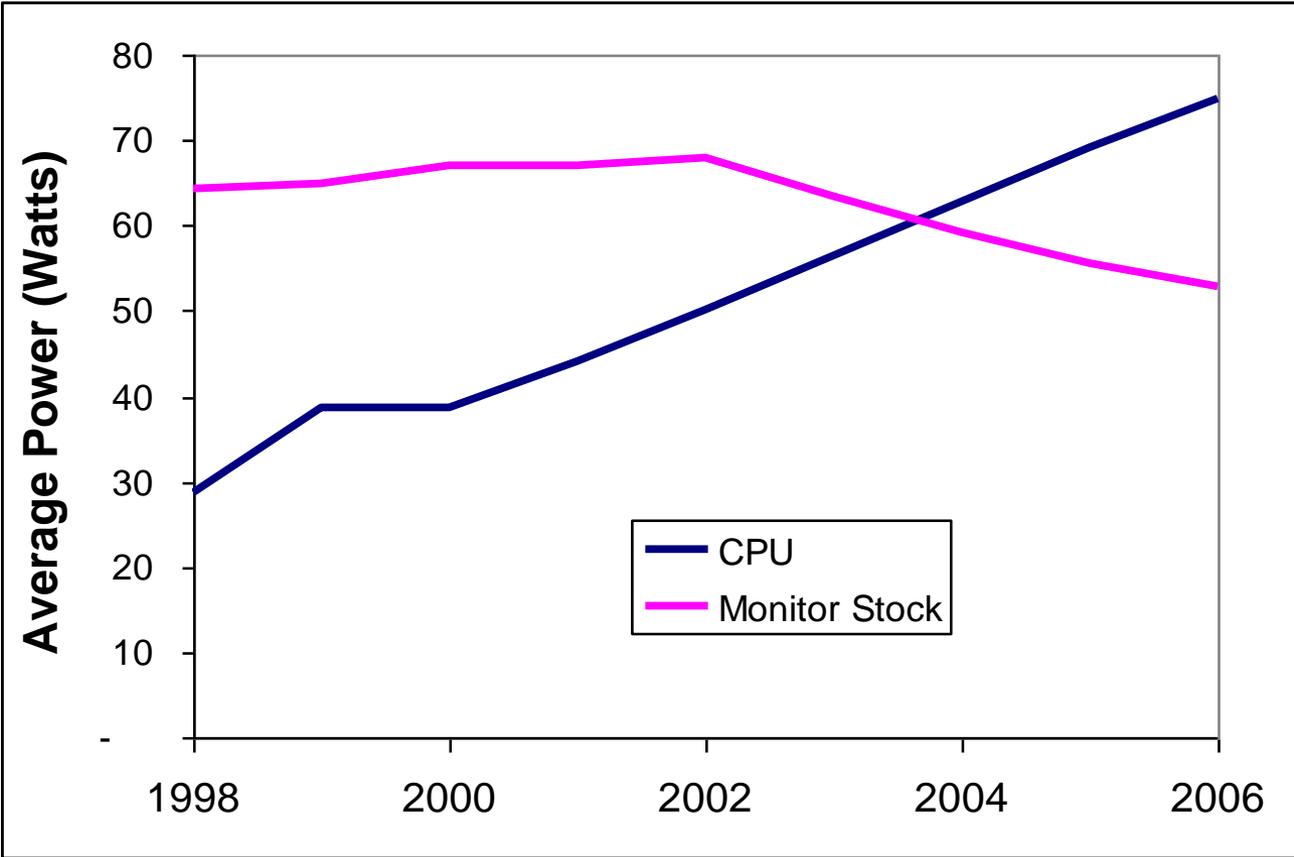
# Putting it into Context...



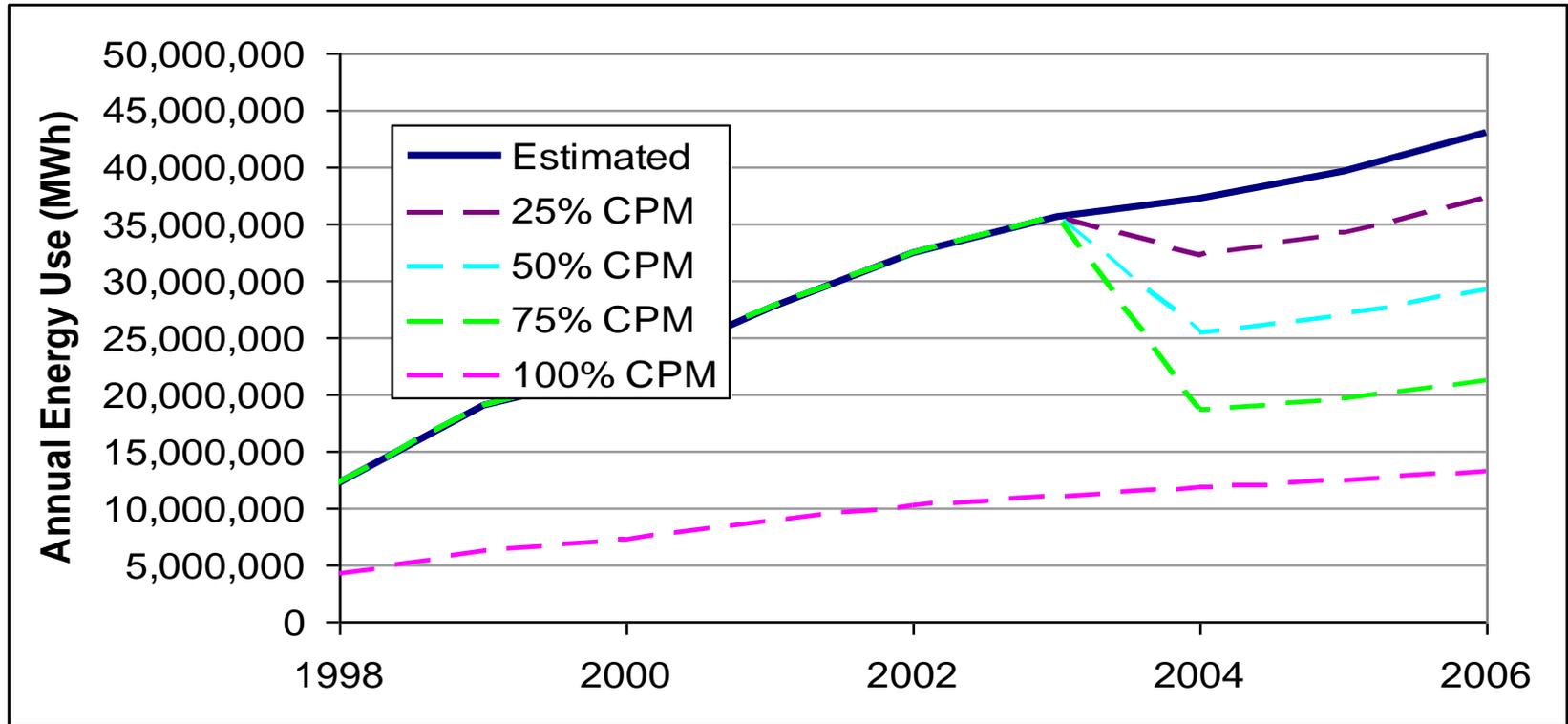
# Vast Majority of Computers Are Not Power-Managed



# Power Consumed by Computer Now Exceeds that of Monitor



# Potential Savings in the U.S. is Enormous



# What Just 50% Computer Power Management Would Accomplish



- Reduce 6 million tons of CO<sub>2</sub>
- Remove 1 million cars from the road

- Electricity to light 8 million homes

