



Program Design Considerations

Mike Walker, President of Beacon Consultants
Network Inc.

Mark Bramfitt, Principal Program Manager at Pacific
Gas and Electric Company



Computer power consumption can vary widely

Use LESS Energy

- Notebook
- Integrated video/graphics card
- Applications requiring light processor activity
- LCD monitor
- No screen-saver
- ENERGY STAR qualified
- Turned off at night

Use MORE Energy

- Desktop
- High-end video/graphics card
- Applications requiring heavy processor activity
- CRT monitor
- Screen-saver
- Not ENERGY STAR
- Left on at night



CPM Savings Opportunity:
<100 kWh/yr.....vs.....>1000 kWh/yr



Most Utility Programs Assume Savings of at least 200 kWh/year

- Based on a 2002 Northwest Energy Efficiency Alliance study of Verdiem's *Surveyor*
- Conservative: programs say observed savings are typically higher
 - Computers use more power now than in 2002
 - PCs are more likely to be left on 24/7 now
 - Annual savings > 1000 kWh are not all that rare
- Some programs ask for reports to document savings achieved



Successful Strategies for Addressing Persistence

- Deny end-user permission to change default sleep settings
- Configure sleep settings to revert back to defaults each time user logs in
- Require compliance reports or spot checks 2-3 years after implementation



Why offer incentives if the ROI is so good?

- Nonprofit & gov't orgs don't have the cash
 - Modest up-front investment is still too great
- Split incentives in large corporations
 - Facilities dept benefits from lower energy costs, BUT...
 - IT dept pays (staff time, solution administration, software)

Result = Inaction



Free Ridership Appears to be a Minor Problem

- Organizations persuaded to act based on ROI alone have probably already done so
 - CPM solutions have been readily available for many years
- Free-ridership problem may be adequately mitigated by not awarding rebates retroactively

