



NRDC Comments on ENERGY STAR Computer Specification - May 20, 2005

NRDC appreciates the opportunity to submit these written comments on the EPA process underway to update its computer specification. We are very supportive of the approach taken by EPA to date and its decision to address active mode power use in its specification. NRDC looks forward to seeing the first draft of the spec from EPA this summer and is committed to working with all stakeholders throughout this process.

Specification Scope and Timing Issues

As NRDC has publicly stated in numerous public forums, we believe the ENERGY STAR specification for computers must address power usage when the computer is on and being used, and not just when the computer is in sleep mode or turned off. Our research shows that: a) most computers, particularly those in networked office environments, do not utilize the power management features and that many office computers are left on all night, and b) the majority of a computer's annual energy use (kWh/yr) occurs when the computer is in active mode.

In order to reduce the active mode power use in the near term, we are supportive of EPA's proposal of adding a minimum power supply efficiency requirement and adding a maximum allowable idle power mode level. These measures would constitute the foundation for a Tier 1 spec and represent a logical interim solution that can be instituted relatively quickly to achieve meaningful, near-term energy savings.

We also support EPA's longer term plan to institute a performance based "whole machine" specification that would utilize benchmarking software. While this type of specification is preferable to a prescriptive based one, we believe it will take a year or more to reach consensus between the various stakeholders to develop.

In conclusion, we support EPA's proposed two-phased approach. We encourage EPA to move quickly to finalize and implement Tier 1, while simultaneously working to develop the necessary tools to move to a performance based Tier 2 spec in the future.

Power Management Enabling

We completely agree with the industry stakeholders at the April meeting that one of the largest energy savings opportunities in the IT arena is to make sure that computer power management features are enabled and that computers go into a low-power sleep mode during periods of extended inactivity.

The current reality is that, despite being shipped with this capability, the vast majority of computers do not utilize the power management features. This problem is particularly challenging in networked office environments wherein the IT administrator often chooses to disable this feature for ALL the computers under his/her control. They do this to remove any barriers, real or perceived, that might prevent them from providing system updates, maintaining system security, etc.

We fully support the industry's desire to take a deeper look as to why computer owners and users are not taking advantage of the power management features, and to identify ways to greatly increase the percent of computers that are enabled in the future. To that end, we plan to attend the industry sponsored meeting in June to initiate this conversation. However, until viable solutions to the power management enabling problem are found and implemented, NRDC urges that the EPA continue to pursue its current approach toward achieving energy savings in computers which is independent of unpredictable factors like user behavior and will provide more reliable near-term energy savings.

We believe a dual track approach, as described below, is appropriate:

- Develop a revised specification for computers, as previously outlined by EPA that meaningfully reduces active mode power usage. This will provide computer owners and the EPA with energy and carbon savings that they can be confident will be achieved. To date, the energy savings attributed to ENERGY STAR computers are largely paper savings and have not been achieved due to the low enabling rates.
- Have interested stakeholders work to reduce barriers towards greater power management enabling rates and launch a promotional campaign to encourage increased enabling rates in the future.

Idle Mode

During the April meeting, NRDC and its consultant Ecos pointed out the benefits of adding an "idle mode" requirement to the ENERGY STAR spec. This is important as computers, when on and not in sleep mode, spend the vast majority of their time in idle mode.

To date, we have not heard compelling reasons why EPA should remove idle mode from its Tier 1 spec. While we recognize additional dialogue is needed to finalize the definition of idle mode and the test method used to measure it, we believe consensus could be reached relatively quickly on these matters.

To that end, we plan to develop a refined straw man idle definition and test method for the industry's consideration at the June 21st meeting. After modifying the test method as necessary, industry can then test their machines and provide the data to EPA for their analysis.

Based on the test data, EPA can then revise its calculations to better understand the national savings impact of idle mode and can revise, as necessary, the maximum allowable idle mode.

The idle mode requirement will also force require computer component makers and assemblers to pay attention to the energy consequences of their future designs. Without an idle mode requirement, it is quite likely that annual computer energy use will continue to grow, even with high adoption rates of the Tier 1 ENERGY STAR spec.

Game Consoles

Given the growing popularity of powerful game consoles like Microsoft's X-Box and Sony's PlayStation, we encourage EPA to evaluate various options to address this category's energy use. The next generation of machines increasingly resembles desktop computers in their capabilities, components, and power usage.

Respectfully Submitted By:

Noah Horowitz
Sr. Scientist
nhorowitz@nrdc.org