

Date 8-23-05

I want to thank ICF and the EPA for the opportunity to comment on the Draft Battery Charging Systems Specification. I think it has been good that the EPA and the Cadmus group have been so willing to listen to us manufacturers and improve the standard with industry input. The document looks very good regarding the test method and general information. I only have three issues, which I feel need to be addressed.

1) The definition for cord/cordless devices needs to be modified to include Appliances, which are powered by DC wall plug transformer. As it states right now it could be misinterpreted that all cord/cordless units have an AC power cord. I would propose to change the definition as follows:

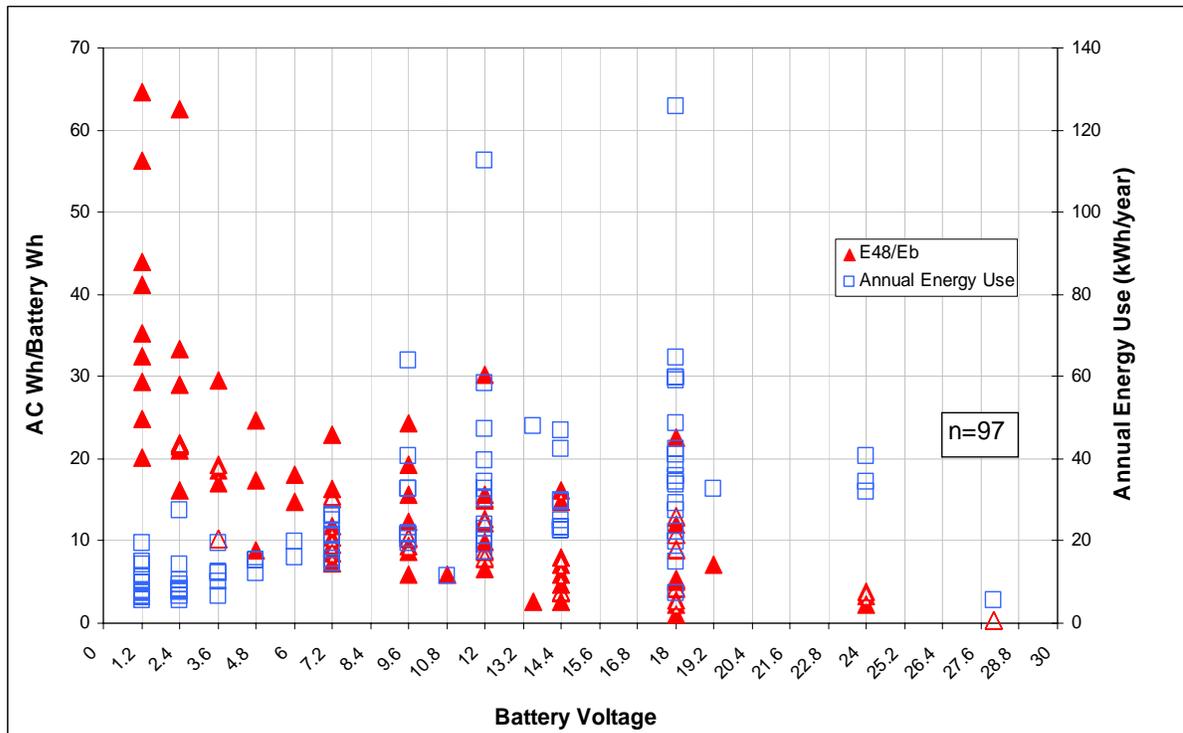
Cord/Cordless: Product or appliance is designed so it can run on battery power only and the charging circuitry and/or charging transformer has enough capacity so the product or appliance can also run with a discharged battery.

2) All the definitions should reside in one document or the definitions should be **exactly** the same wording.

3) I still do not agree with having a specification for products under 1.5 volts. The amount of energy saved is not going to be worth the initial investment. If we look at your chart below and we could make the worst product in the 1.2 volt category 50% better we could go from 19 KWh per year to 9.5 KWh per year. If we take a rate of \$.08 per KWh you would save **\$0.76** per year.

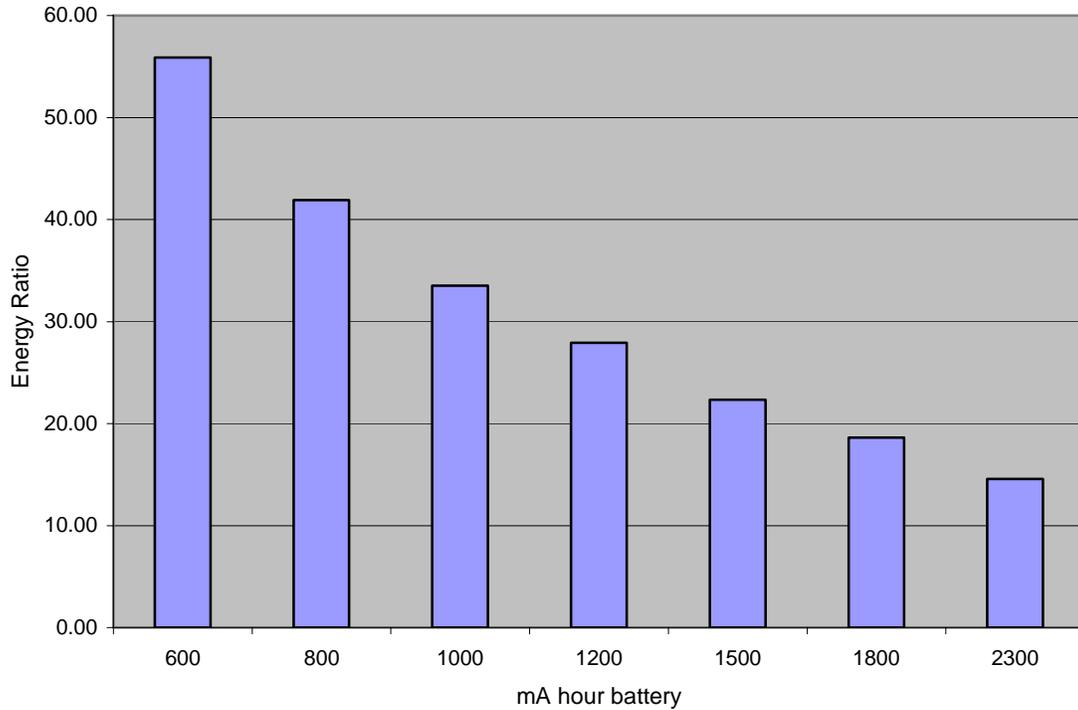
According to your "Guiding Principles for Energy Star Specification Development" the first two statements: "Significant energy savings potential" and "Purchasers will recover their investment within a reasonable time period" will not be fulfilled in the 1.2 volt category due to the increase in unit price vs. the amount to be saved. This is due to the inefficient diodes when using a linear transformer or power needed to run electronics when using a switching supply.

48-Hour Energy Use Normalized by Battery Energy and Projected Annual kWh Consumption Graphed on Battery Voltage



In addition, there is more of a challenge with a one-cell application because the ER formula uses the battery capacity in the denominator, which drastically affects the energy ratio. I have attached a chart below, which shows the effect the battery capacity can have on the energy ratio without changing the charging system. This is another reason why units under 1.5 volts should be excluded.

Energy Ratio vs Battery Size with Same Charger



Thanks again for the opportunity to comment on this draft standard.

Sincerely
Rick Habben
Safety Compliance Engineer