ITI Comments

ENERGY STAR-Qualified External Power Supplies

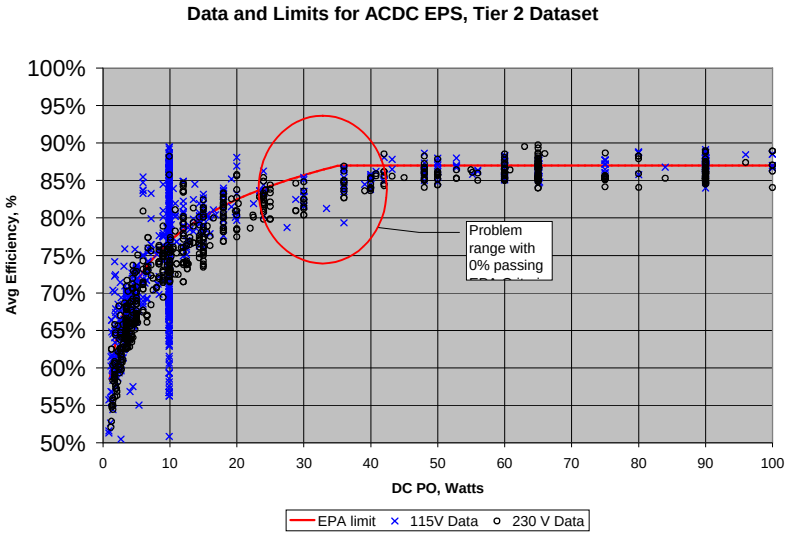
First Draft: Revised Tier 2 Specification

The Information Technology Industry Council, ITI, offers the following comments and recommendations relative to Tier 2 of the ENERGY STAR Specification for External Power Supplies (EPS). We welcome an opportunity for further discussion, and indeed recommend that the U.S. Environmental Protection Agency (EPA) develop and distribute via the ENERGY STAR web site a summary of comments, along with the agency's response. Further, ITI welcomes comments or inquiries on this document. Please direct them to Mr. Ken Salaets at 202-626-5752 or ksalaets@itic.org.

Our comments follow:

1. The average efficiency limiting formula (Table 1) has several areas where very few (0-5%) of the products in the database meet the new criteria. This passing rate is substantially below the EPA set point of 25% of the products available on the market. ITI recommends that the EPA create criteria that pass at least the minimum 25% of designated available products across the wattage range.

   a. 25-42 W – no models meet the criteria



   b. > 100W – only 3% of products meet criteria (see the table below). EPA data indicates only three percent of all EPS in the 100W and higher output power range will meet the new rules. This is an extremely low passing rate. Although this range of EPS makes up less than 10% of all the EPS in the EPA listing, it will have a large impact on important products that rely on those higher power supplies (e.g., mobile PCs). The EPA needs to revaluate the requirements for that range of EPS to bring it up substantially closer to the 25% passing rate.

2. The passing rate of 230V EPS is 1/2 to 1/3 of the passing rate of the 115V EPS of the same Wattage range

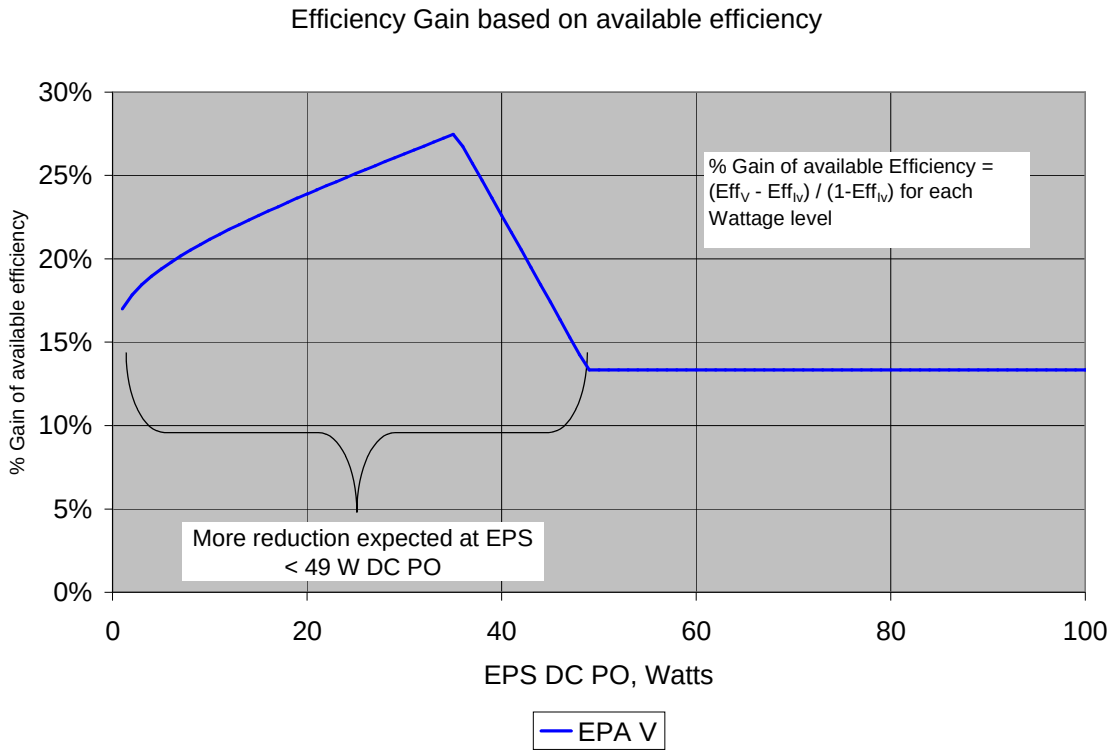
   a. Since 230V and 115V EPS do not operate in the same markets, this would create a very low ENERGY STAR presence in the 230V markets. We think this passing rate is too low to adequately encourage a market transformation to the new specification in 230V. With 45% of units being 230V EPS, a poor market transformation would have a significant negative impact on the ENERGY STAR programs in Europe and Asia.

   b. In addition, for those units which are universal EPS (accepting 100-230V input voltage), the new limits are likely to create a scenario where EPS that pass at 115V will fail at 230V. This is due to the fact that typically universal powers supplies are more energy efficient in both no-load and active efficiency when at 115V versus 230V.

ENERGY STAR proposal									
	Total			**115 V**			**230 V**		
DC Power Out	**Samples**	**Passing**	**%**	**Samples**	**Passing**	**%**	**Samples**	**Passing**	**%**
1 to 4.9 W	440	96	22%	225	76	34%	215	20	9%
5 to 9.9 W	526	167	32%	417	151	36%	109	16	15%
10-19.9 W	244	63	26%	97	38	39%	147	25	17%
20 to 49.9 W	166	14	8%	67	9	13%	99	5	5%
50 to 99.9 W	267	72	27%	113	48	42%	154	24	16%
100+ W	121	3	2%	59	1	2%	62	2	3%
Total	1764	415	24%	978	323	33%	786	92	12%

PROPOSAL: Set the criteria based on the 230V data. The 115V markets will still received the same efficiency gains through universal power supplies and there will actually be some 230V models for the European Market

3. The average efficiency limiting curve does not demand equal improvements across the different wattage power supplies. As a function of available efficiency to improve on (100% - Level IV Efficiency Limit at each wattage level), the new criteria demands much more improvement at the low wattage levels than at the high wattage levels.



PROPOSAL: Lower the active efficiency levels for the 0-40W output power range EPS so the percent gain of available efficiency is more uniform across the entire wattage range.

4. **Harmonization:** ITI would like the EPA to harmonize with the California Energy Commission's (CEC) Tier 2 rules for now and then use their proposals for new rules to come out at a later date; say two or three years after they implement the CEC rules. Timing-wise it would look like this (based on EPA dates):

   - Using 3 years:
   - 7/1/2008: EPA uses CEC rules for EPS sold individually.
   - 4/1/2009: EPA uses CEC rules for newly updated Imaging rules.
   - 7/1/2011: EPA moves to "Tier 3" for EPS sold individually.
   - 4/1/2012: EPA uses their newly developed limits for imaging products.

   Harmonization of energy efficiency limits have many benefits and should be fostered whenever possible. Most EPS suppliers and manufacturers of ENERGY STAR qualified products have just completed design rollovers of their EPS to meet upcoming requirements in California and Australia. These upgrades will save substantial amounts of energy. We request the EPA recognize these major efforts and the very significant resources it would require to immediately redesign these EPS models to meet new and different ENERGY STAR limits for Tier 2.

PROPOSAL: Adopt the CEC Tier 2 limits for ENERGY STAR Tier 2 limits. Meanwhile, continue to work with industry and other stakeholders to establish future limits (e.g., "Tier 3"), with a target implementation date of three years after the Tier 2 limits are established.

ADDITIONAL ISSUES:

- **Power Factor Corrections*:*** While adding PFC to EPS may help the electrical grid, it requires more power at the device level. Estimates indicate PFC added to 115V EPS will use an additional 0.1W in no-load and reduce active efficiency 0.5 to 1%. We do not believe that EPA should be establishing requirements that *increase* power use at the device level, and recommend that this requirement be removed. However, if EPA feels compelled to retain PFC, then we request a written explanation outlining the rationale. Further, we request that EPA factor in the extra power use and adjust the proposed Tier 2 energy efficiency limits commensurately.

  In addition, if EPA pursues the PFC issue, a simpler and more direct way to address these losses would be to require EPS units comply with EN61000-3-2 rather than indirectly via a power factor standard. This approach would provide the added benefit of reducing the number of different tests that manufacturers would have to conduct, making the overall compliance process simpler and more cost-effective.

- **Incomplete Data:** The EPA data set does not appear to include non-ENERGY STAR-qualified EPS. EPA has committed to include such data in order to produce "break points" that accurately reflect the universe of available products.

- **Policy Alignment with Other Product Specifications:**

  Page 5 (lines 203-208) – The draft specification requires a manufacturer to qualify a switch mode EPS at 230V/50Hz even if it is only going to be sold in the U.S. This strays from the Imaging, Computer, and Display specifications, which allow manufacturers to qualify products based on the region in which the product will be sold.

  Page 6 (lines 216-223) – Again, the draft specification should be aligned with the Imaging, Computer, and Display specifications relative to referencing regions.

  Page 6 (lines 239-243) – Consistent with other office product memoranda, ITI requests that implementation of the new EPS levels be tied to the manufacture date rather than the built-on-date, as suggested in this draft. Changing to the latter would represent a major change from existing policy.