



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
 WASHINGTON, D.C. 20460

OFFICE OF  
 AIR AND RADIATION

January 3<sup>rd</sup>, 2013

Dear Computer Manufacturer or Other Interested Stakeholder:

In Draft 3 of the ENERGY STAR Specification for Computers, EPA included two separate category systems. One, for Desktops, was based on the Ecma category system while the other, for Notebooks, was based on an ITI proposal submitted to EPA in early 2011. EPA analysis indicated that the ITI proposal was very effective for Notebooks while choosing either the Ecma or the ITI proposal for Desktops made no difference. Stakeholders indicated that the Ecma system would be more desirable for Desktops, so EPA published Draft 3 with ITI categories for Notebooks and Ecma for Desktops.

However, during the December webinar for Draft 3 some stakeholders expressed an interest in eliminating the use of the Ecma category system for Desktops and adopting the alternative category proposal submitted by ITI. This would create a single, consistent category system for both Notebook and Desktop products. During the call, EPA agreed to generate product efficiency levels for Desktops according to the ITI category proposal to provide a basis of comparison between the two category systems and to assist stakeholders in formulating their feedback.

The ITI category proposal for Desktops and appropriate TEC levels are presented below, as are the Ecma equivalents from Draft 3 for comparison. EPA encourages stakeholders to include comments on the ITI category system and proposed levels in their submitted feedback.

**ITI Categories for Desktops (New Analysis):**

**Table 1: Categorization of Desktop and Integrated Desktop Computers**

Category	DT 0	DT I1	DT I2	DT I3	DT D1	DT D2
Performance Score, $P^i$	$P \leq 3$	$3 < P \leq 6$	$6 < P \leq 7$	$P > 7$	$3 < P \leq 9$	$P > 9$
Base Memory	None	None		None		
Base Graphics <sup>ii</sup>	Any Graphics	Integrated Graphics			Discrete Graphics	
Graphics Adders <sup>ii</sup>	dGfx $\leq$ G7	N/A			dGfx $\leq$ G7	

**Table 2: Base TEC Allowances for Desktop and Integrated Desktop Computers**

Product Category	TEC <sub>BASE</sub> (kWh)
DT 0	69
DT I1	112
DT I2	120
DT I3	135
DT D1	118
DT D2	137

i  $P = [\text{\# of CPU cores}] * [\text{CPU clock speed (GHz)}]$ .

ii Graphics capability is categorized based on frame buffer bandwidth, as shown in Table 10.

**Ecma Categories for Desktops (Reprinted from Draft 3):**

**Table 3: Categorization of Desktop and Integrated Desktop Computers**

Category	DT 0	DT 1	DT 2	DT 3
CPU Cores	Any	Cores $\leq 2$	Cores $\geq 3$	Cores $\geq 3$
Channels of Memory	Channels = 1	Channels = 2	Channels $\geq 2$	Channels $\geq 2$
Base Memory	1 GB	2 GB	2 GB	4 GB
Base Graphics <sup>ii</sup>	Integrated Graphics	Integrated Graphics	Integrated Graphics	dGfx = G5
Graphics Adders <sup>ii</sup>	dGfx $\leq G7$	dGfx $\leq G7$	dGfx $\leq G7$	G5 < dGfx $\leq G7$

**Table 4: Base TEC Allowances for Desktop and Integrated Desktop Computers**

Product Category	TEC <sub>BASE</sub> (kWh)
DT 0	65
DT 1	115
DT 2	130
DT 3	205

Please note that category DT I3 has been added to the ITI proposal for Desktops for the same reason NB I3 was added for Notebooks—to account for high-end integrated graphics systems.

Additionally, EPA has corrected a small typo in the Draft 3 Notebook category boundaries. The boundary between NB I2 and NB I3 has been shifted to 8, where in Draft 3 it was mistakenly set to 9, as shown below. The attached document contains several pages excerpted from Draft 3 and revised to reflect all of these modifications.

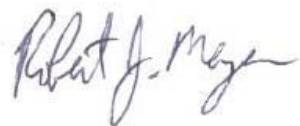
**Table 5: Categorization of Notebook Computers (Updated from Draft 3)**

Category	NB 0	NB I1	NB I2	NB I3	NB D1	NB D2
Performance Score, $P$	$P \leq 2$	$2 < P \leq 5.2$	$5.2 < P \leq 8$	$P > 8$	$2 < P \leq 9$	$P > 9$
Base Memory	None	None			None	
Base Graphics <sup>ii</sup>	Any Graphics	Integrated Graphics			Discrete Graphics	
Graphics Adders <sup>ii</sup>	dGfx $\leq G7$	N/A			dGfx $\leq G7$	

**EPA will extend the comment period to January 18<sup>th</sup>, 2013** to allow additional time to evaluate the attached document.

Thank you for your continued support of the ENERGY STAR program. Stakeholder participation is critical to developing a meaningful specification and to the overall success of ENERGY STAR. Please direct any specific questions on the specification to RJ Meyers, EPA, at [Meyers.Robert@epa.gov](mailto:Meyers.Robert@epa.gov), or 202-343-9923; or John Clinger, ICF International, at [John.Clinger@icfi.com](mailto:John.Clinger@icfi.com), or 202-572-9432. For questions on the test method, please contact Bryan Berringer, DOE, at [Bryan.Berringer@ee.doe.gov](mailto:Bryan.Berringer@ee.doe.gov), or 202-586-0371.

Sincerely,

A handwritten signature in black ink that reads "Robert J. Meyers". The signature is written in a cursive style with a large, prominent initial 'R'.

Robert Meyers  
Product Manager, ENERGY STAR Computers