



ENERGY STAR® Version 6.0 - Notes on Draft 2 Dataset: Desktops and Notebooks

Dataset – Clarifications

As was the case for Draft 1, EPA excluded data points from evaluation that were identified with likely errors that could not be corrected with industry input. With reference to the dataset, this resulted in only systems (rows) analyzed that met the following criteria:

- Column C [Product Type (Desktop, Integrated Desktop, Notebook)] – One of the following:
 - “Desktop”
 - “Integrated Desktop” or
 - “Notebook”
- Column G [Category (Revised)] – One of the following:
 - DT0, DT1, DT2, or DT3
 - NB0, NB1, NB2, NB3, or NB4

Assumptions

The following is a list of assumptions used in analysis of the dataset. **Version 5 data** refers to data acquired through administration of the Version 5 ENERGY STAR qualification process (under which, notably, Short Idle data was not collected). **Dataset Development data** refers to data provided by stakeholders in EPA’s Version 6 dataset development process.

Consistent with Draft 1

<p>Short Idle (Version 5 data ONLY)</p> <p><i>The Version 5 computers specification does not require the testing of models in short idle mode. Thus, the power use in this mode was estimated through information gathered from the model data that was submitted from stakeholder during the data collection process.</i></p>	<ul style="list-style-type: none"> • <u>Desktops (integrated)</u>: [Short Idle] = 1.8 * [Measured Long Idle] • <u>Desktops (standard)</u>: [Short Idle] = [Long Idle] • <u>Notebooks (all)</u>: [Short Idle] = 1.5 * [Measured Long Idle]
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<p>Graphics Adders</p> <p><i>All adders were generated using (a) the TEC mode weightings proposed in Draft 1 and (b) DC power data for Desktop GPUs as provided by stakeholders and from EPA’s research.</i></p> <p><i>From this data, the following assumptions were utilized to generate the TEC adders proposed in Drafts 1 and 2.</i></p>	<ul style="list-style-type: none"> • <u>DC to AC conversion</u>: losses of 18% (based on PSU efficiency criteria) – i.e., (AC Equivalent Power) = $(1+.18) * (\text{DC Power})$ • <u>GPU DC Long Idle Power</u> = 66% * measured Desktop GPU DC Short Idle Power • <u>Equivalent Notebook GPU Short Idle DC Power</u> = 38% * measured Desktop GPU DC Short Idle Power • <u>Power in Sleep</u> = <u>Power in Off</u> = 0 watts
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Introduced for Draft 2

<p>Display Adder (Integrated Desktops)</p>	<ul style="list-style-type: none"> • Dataset Development data <ul style="list-style-type: none"> ○ Adder is calculated as referenced in the Draft (see Table 9) • Version 5 data <ul style="list-style-type: none"> ○ Because Short Idle was a calculation rather than a measurement, and inconsistent screen size data is available for this data, this field in the dataset only offsets the assumption made in generating a Short Idle value from Long Idle. See the first row of the previous table for the assumptions cancelled by this approach.
<p>Enhanced-performance Integrated Displays</p>	<ul style="list-style-type: none"> • See Draft for proposal.