What’s Happening With Consumer Electronics?

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Energy Star Partner Meeting
Who is E Source?

- Membership-based energy research, advising, and consulting services
- How to manage, sell, and use energy effectively
- Unbiased research and analysis
  - Fuel neutral
  - Product neutral
  - Vendor neutral
- Serving entire energy market, including service providers and top-tier energy managers
Increasing Energy Use from Consumer Electronics

Data from the Energy Information Administration
What’s Happening with TVs?

- Average screen size + number of TVs per home are increasing
- Increasing Energy Star requirements
- FTC now requires EnergyGuide efficiency labels for all TVs

![Image of a TV](image-url)  
*Courtesy: Everaldo Coelho*
Power Draw of TV Technologies (models from 2008-2010)
Set-Top Boxes

- A recent NRDC report found that a typical household set-top box configuration consumes 446 kWh annually – more than a new Energy Star refrigerator!

- Different configurations/specifications could reduce energy consumption
Video Game Consoles

Some consoles can potentially consume three times the energy of a typical refrigerator or four times that of a TV!

![Bar chart showing annual consumption of 2006 Sony PlayStation 3 (always on), Typical Refrigerator, and Typical TV.]

Data from DOE and NRDC
Power Draw Down Since Peak in 2007

FIGURE 1: The evolution of video game power draw
Although the active-mode power draw of video game consoles has increased greatly over time, consoles manufactured since 2007 draw considerably less power in active mode than their predecessors did.

<table>
<thead>
<tr>
<th>Console Year Released</th>
<th>Active Mode Power Draw (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft</td>
<td></td>
</tr>
<tr>
<td>Xbox 360 (2010)</td>
<td>88</td>
</tr>
<tr>
<td>Xbox 360 (2007)</td>
<td>119</td>
</tr>
<tr>
<td>Xbox (2001)</td>
<td>64</td>
</tr>
<tr>
<td>Nintendo</td>
<td></td>
</tr>
<tr>
<td>Wii (2010)</td>
<td>14</td>
</tr>
<tr>
<td>Wii (2006)</td>
<td>16</td>
</tr>
<tr>
<td>GameCube (2000)</td>
<td>23</td>
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<tr>
<td>Nintendo 64 (2006)</td>
<td>7</td>
</tr>
<tr>
<td>Super Nintendo (1991)</td>
<td>7</td>
</tr>
<tr>
<td>Sony</td>
<td></td>
</tr>
<tr>
<td>PlayStation 3 (2010)</td>
<td>85</td>
</tr>
<tr>
<td>PlayStation 3 (2007)</td>
<td>150</td>
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<tr>
<td>PlayStation 2 (2000)</td>
<td>24</td>
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<tr>
<td>PlayStation (1994)</td>
<td>8</td>
</tr>
</tbody>
</table>

Note: W = watt. © E Source
What’s Energy Star Been Up To?

- Improved TV efficiency specifications
  - Sleep → Active mode power draw regulated

- Currently developing new specification for uninterruptible power supplies

- New specifications for set-top boxes

- Revised criteria for electronic displays

Courtesy: U.S. EPA
For More Information

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