



Energy Consumption of Household Products

| Product | Avg. Energy Use per Unit (kWh/yr) | Avg. Energy Use per Household (kWh/yr) | Avg. Energy Cost per Household (\$/yr) |
|---------------------------|-----------------------------------|--|--|
| Refrigerator | 500 | 500 | \$45 |
| Dishwasher | 360 | 360 | \$32 |
| Microwave | 120 | 120 | \$11 |
| Television | 185 | 269 | \$24 |
| DVD | 34 | 34 | \$3 |
| Stereo (component system) | 150 | 150 | \$14 |
| Cordless telephone | 19 | 19 | \$2 |
| Lighting | 110 | 950 | \$86 |
| DTA (House bill) | 144 | 273 | \$25 |
| DTA (ACEEE proposal) | 57 | 86 | \$8 |

Sources and Assumptions:

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| Refrigerator | AHAM—2002 SWA energy use 520 kWh/yr; rounded down to account for increases in market share at new ENERGY STAR level. |
| Dishwasher | EPA reports 2004 ENERGY STAR market share approx. 90%; ENERGY STAR qualification at 387 kWh or less. Assume 360 kWh as average for popular full-size models and brands. |
| Microwave | DOE 1998 estimates average unit energy consumption 120 kWh/yr. |
| Television | EPA reports 2004 ENERGY STAR market share 22%; rounded up to 25%. EPA cites 75W active/5.9W standby for typical new TV and 70.1W/1W for ENERGY STAR. ACEEE assumes 25% of new TVs qualified for Tier I ENERGY STAR levels but do not meet current Tier II requirements (e.g., have average standby power of 2.5W). Assume 6 hour/day usage primary TV; 2 hours/day second TV. Household consumption assumes 2 TVs per household. |
| DVD | EPA reports 2004 ENERGY STAR market share 62%; rounded up to 65%. EPA cites 17.7W play/16.2W on/4.5W standby for typical new DVD and 14.1W/12.6W/0.9W for ENERGY STAR. Assume 1 hour/day play; 2 hour/day on; 21 hour/day standby. |
| Stereo | LBNL 1999 calculates average unit energy consumption 150 kWh/yr. |
| Cordless telephone | EPA reports 2004 ENERGY STAR market share 55%. LBNL 2001 cites 3.1W active/3.4W charging/2.3W standby for typical new phone. ENERGY STAR requires 1.0W standby (including when battery fully charged). Assume 1 hour/day active; 2 hour/day charging; 22 hour/day standby |
| Lighting | Per unit assumes one 75W incandescent bulb operated for 4 hours/day. Average annual household lighting use (indoor and outdoor) per RECS 2001. |
| DTA | Per unit energy consumption based on DTA used with primary TV. Assume 6 hour/day usage primary TV; 2 hours/day second TV. Assume 25% of users turn DTA off when TV not in use. House bill assumes 18W active/7.5W standby passive. ACEEE proposal assumes 12W active/2W standby passive with automatic power down after prolonged inactivity. Household consumption assumes 2 DTAs per household |