



KPMG ANALYSIS

Energy Consciousness Reaching Consumer Device Firms

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By Dave Pelland, Managing Editor, Digital Insider

As rising energy costs mean consumers pay more attention to the electricity needs of electronics, device manufacturers and retailers are improving energy efficiency while promoting information about the products.

"We want to start providing what we call 'energy transparency' to the consumer," said Allen Henrie, manager of strategic business in the home entertainment department of Wal-Mart Stores, at the International Consumer Electronics Show in Las Vegas.

Henrie said the retailer hopes to promote annual operating cost estimates for TV models, much in the way retailers offer similar comparison data for appliances.

"We're hoping to put a number behind what these efforts are about," Henrie said. "If you make energy transparency visible to the customer, it helps them make a better choice and encourages the industry to work toward more efficient power supplies."

Rising energy prices in most of the United States and increased sales of electronic products has led to increased attention to electricity costs. The Consumer Electronics Association (CEA) estimates wholesale electronics sales reached \$161 billion in 2007, an 8.2 percent increase over 2006.

According to the U.S. Energy Information Administration, the nationwide average cost of a kilowatt hour of electricity increased 29 percent between 2000 and 2007, from 8.2 to 10.6 cents. Some regions experienced sharper increases, with average costs rising nearly 36 percent in the Pacific region and 48 percent in New England.

"The green aspect is out there and people are paying attention to it," says Greg Fournier, backup product line manager for APC.

For product manufacturers, designing products to be more energy-efficient can mean economic benefits. Using chips that consume less energy, for instance, means the unit operates at a lower temperature and requires less energy for cooling.

In addition, energy-efficient design may help firms reduce the amount of raw materials going into a product.

"Two years ago, the price of copper started going through the roof, and we decided to redesign an [uninterruptible power supply] with a smaller transformer to use less copper," Fournier says.

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Big TVs Under Fire

Flat-panel televisions receive perhaps the most attention for energy use, which green advocates have likened to gas-guzzling cars such as sport-utility vehicles.

Depending on the brightness of the set and the type of programming, plasma and LCD flat-sets typically use one-and-a-half to three times the power of a CRT TV, and generally cost about \$4.50 to \$10 a month to operate.

Mark J. Sharp, group manager of Panasonic's corporate environmental department, said the increased cost to operate a flat-panel TV isn't surprising because of its larger screen size and high image quality.

"A new [flat-panel television] that's replacing an older, CRT-type set is at least three times larger in square inches than the set it replaces and also, in many cases, has four to six times greater resolution," Sharp said. "Quite honestly, you have to expect greater energy use."

Jon Fairhurst, manager of technology planning for Sharp Labs of America, said the International Electrotechnical Commission (IEC) industry group is promoting the sale and use of TVs with lower brightness settings. For instance, the IEC wants manufacturers to install light sensors that adjust a screen's brightness to match the lighting within a room.

Fairhurst said TV sets are often shipped to retailers with the brightness turned up because when comparing models in a store, consumers tend to choose the model with the brightest image.

Manufacturers are also trying to help reduce power consumption. For instance, APC has introduced an uninterruptible power supply (UPS) unit that allows consumers to plug in PCs and related devices such as printers, speakers, scanners or external hard drives. When the PC is turned off or placed into sleep mode, the UPS senses the reduced power draw and turns off connected peripherals.

APC's Fournier estimates that most home desktop computers are used about three hours a day. While the PC is not being used, its peripherals can draw about 40 watts of electricity an hour.

The industry and retailers are also working to standardize how manufacturers measure energy use, and to provide energy-related data to consumers.

Standards Needed

"It's difficult to find energy-use information on a model basis in our industry," said Douglas Johnson, senior director, technology policy and international affairs for CEA. "We're aware of that, and we've been taking steps to provide standardized energy-use disclosures on products and categories."

The U.S. Environmental Protection Agency announced Feb. 5 that a revised Energy Star designation for televisions, which will go into effect Nov. 1, will require televisions to be 30 percent more energy efficient than comparable models to earn an Energy Star label.

"The recognition is there among manufacturers about the need to design more efficient products," said Panasonic's Sharp. "With the impetus we have from programs like Energy Star where there is a [high] bar set, it gives us a tangible goal that we can strive to meet."

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