

# A Greener Office- Office Technology

Source: The Green Office ([www.thegreenoffice.com](http://www.thegreenoffice.com))

Electronics use impacts the environment in three general areas: (1) the creation of waste materials, (2) toxic and pollutant production processes, and (3) energy and resource consumption.

The speedy advancement of technology leads to quick obsolescence and a high turnover rate for products that increase waste stream volume. In 2000, electronics accounted for 3.86 billion pounds of municipal waste. That number accounts for a mere 1-2% of the total, but it is important to consider the types of waste and contaminants created by electronics. The list includes toxic heavy metals and harmful organic compounds, such as lead, cadmium, PCBs, lead oxide, barium, mercury, brominated flame-retardants, various acids, and antimony highly potent and damaging materials for which impact research is only beginning to accumulate.

In addition to the raw materials used, manufacturing certain electronics, such as computer equipment, constitutes a particularly intensive use of energy and resources. For example: To produce a single semiconductor, research indicates that 800 kWhs of electricity are consumed, the same amount used by the average household in 2 months. Also consumed are several thousand gallons of water, roughly as much as used by a US citizen in one month.

The issue most visible to the everyday consumer is the amount of electricity used during operation of electronic products. In recent years, manufacturers have focused on creating more energy-efficient products, and the US EPA, through its Energy Star program, has made a large effort to certify the electricity consumption levels of various products. Office buildings currently consume 25% of the total commercial building electricity used in the US, the highest of all building types.

## Buying Guide

The introduction of the US EPA Energy Star program has raised visibility and awareness for the energy-efficiency of electronics and appliances. Energy Star began in 1992 and has grown to encompass 35 product categories. An Energy Star certified office computer, for example, is 52% more efficient than a standard computer. Purchasing electronics/appliances with the Energy Star certification will ensure more efficient energy use.

A host of other options also exist for green procurement and operation of office electronics. Some products use solar power as their main energy supply. Solar-powered calculators, for example, offer a more sustainable option compared to traditional battery-powered models. Certain electronics and appliances also incorporate recycled materials. Buying these products reduces the amount of materials making their way to the waste stream.



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Here are a few key concepts to keep in mind when purchasing electronics products:

- Look for the Energy Star certification when buying electronics to ensure lower energy consumption.
- Buy alternatively powered electronics. Look for products that are powered by alternative energy sources such as solar.
- Purchase electronics that contain recycled material.

## Best Practices

The following suggestions will help your office increase its environmental performance in the realm of electronics purchasing and use:

- Shop for Warranties: Look for devices with good warranties to encourage product repair instead of replacement.
- Lease Photocopiers: Instead of buying a photocopier, consider leasing. It puts the onus on the manufacturer to promote long-lasting performance.
- Service agreements or extended warranties helps increase the life of a product.
- Make sure that your photocopier has a duplex function and can accept remanufactured ink & toner cartridges.
- Recycle old electronics!
- Buy Up: Help increase the useful life of your product by safeguarding against obsolescence.
- Power Saver: Always make sure that your office computers and photocopiers have the power saver mode turned on. It even helps reduce air conditioning costs.
- Buy Up-gradable: Look for products that can be upgraded, reducing disposal rates.
- Ink and Toner: Make sure that your printer has a remanufactured or recycled cartridge.
- Digital cameras: Consider getting your office a digital camera to reduce resources that go into film.
- Laptops: Use laptops instead of desk tops if this is a viable option for your office they use less energy.
- Re-Condition Batteries: For laptops especially, recondition batteries to reduce waste.

