



How the EPEAT Ecolabel Helps You Meet Zero Waste Goals

The EPEAT ecolabel empowers purchasers to meet their organizational sustainability goals through their purchasing decisions. Products available through EPEAT include computers, monitors, copiers, mobile phones, televisions, and servers. EPEAT is just one of several sustainable purchasing resources freely available from the Global Electronics Council (GEC).

Why is Waste a Sustainability Concern?

The goal of zero waste is a move to a circular economy where we no longer send anything to a landfill. It emphasizes reducing the amount we buy, repairing and reusing for as long as we can, ensuring appropriate recycling, and demanding that manufacturers design products where materials can be recaptured and reintroduced into the supply chain. The goal of zero waste is especially crucial for electronics.

Electronics represent the fastest growing waste stream in the world¹ and currently generates more than 48 million tons of e-waste annually. When these products end up in unmanaged landfills, they leach toxins into the soil and water, posing health risks to humans, animals, and plants. Many discarded IT products end up in developing countries, where they pose health

¹ World Economic Forum. (2019). [A New Circular Vision for Electronics](#)



exposure risks to those working in the informal scrap sector and the communities adjacent to the unmanaged landfills where they are ultimately dumped. Workers who are in the “informal scrap sector” disassemble electronics without access to protective gear and risk direct exposure to toxic substances such as mercury, cadmium, lead, and flame retardants, either through skin contact or inhalation of toxic fumes.

Although it is legal to export discarded electronics to developing countries if they can be reused or refurbished, much of the electronics sent to developing countries is e-waste. The Basel Convention is an international treaty designed to reduce the movements of hazardous waste between nations, and specifically to prevent the transfer of hazardous waste, such as e-waste, from developed to less developed countries (LDCs). The United States is the only developed country that hasn't ratified the Basel Convention.

Battery disposal, especially lithium and lithium-ion batteries, must be handled carefully, and no lithium batteries should be thrown in the trash. Lithium is highly reactive and high temperatures, too high charging voltage, a short circuit, or even too much of a heavy strain can cause an exothermic reaction, i.e. a chemical reaction that results in the battery catching fire rapidly. This is why airlines do not allow spare lithium-ion batteries in [checked baggage](#).

Electronic products are also a source of packaging waste – the packaging used in transporting large numbers of components or finished products from the manufacturer to assembly facilities to stores, as well as the packaging, and associated marketing materials, that end up in the hands of the consumer.

While electronics contain toxic materials, many also contain valuable elements like gold, silver and copper. Based on e-waste disposal rates, Americans alone throw out phones worth \$60 million in gold and silver every year.² The trend towards Circularity for electronic products seeks to keep products in use for as long as possible, by emphasizing repairability and reuse, and the importance of recyclability, where core materials are more easily recaptured for input back into the supply chain.

²² <https://www.nytimes.com/2018/07/05/magazine/e-waste-offers-an-economic-opportunity-as-well-as-toxicity.html> <https://www.nytimes.com/2018/07/05/magazine/e-waste-offers-an-economic-opportunity-as-well-as-toxicity.html>



How EPEAT Registered Products Help You Meet Zero Waste Goals

The EPEAT ecolabel has both required and optional criteria. The required criteria ensure that the product is credibly sustainable, and a product must meet every required EPEAT criterion to be considered an "EPEAT Registered" product. Optional criteria are additional criteria that a manufacturer can choose to have their product meet. By choosing to go beyond the required criteria, manufacturers show their commitment to addressing additional environmental and social issues. The more purchasers prefer products with optional criteria that address principles of circularity, the faster we'll eliminate the waste generated by the production, use, and disposal of IT products.

Products from different EPEAT categories may address waste differently because each product category has product-specific criteria.

EPEAT Required Criteria Help You Meet Zero Waste Goals

Required EPEAT criteria minimize the amount of e-waste generated by the use and disposal of electronic products, highlight reuse and repairability, address packaging waste, and encourage Circularity.

Through the inclusion of criteria requiring recycled content in the product and its packaging, restriction of expanded polystyrene packaging, and the allowance of the use of recycled office paper in imaging equipment, EPEAT criteria ensure products and accessories are created using fewer virgin materials. EPEAT includes criteria for the repairability and upgradeability of products by ensuring the availability of spare parts, service support/information, removal/replacement of batteries, and processes for early failure. Once a product has been created, purchased, and is in use, waste is reduced when electronics last longer.

At the end of life, EPEAT criteria require the registered products, packaging, and associated consumables to be recyclable. Purchasers benefit from required provisions for product and battery take-back services, and from product packaging that is separable and designed to be recycled. Recycling facilities can recover and reuse materials in EPEAT-registered products because they are easy to disassemble, and plastic parts are marked, meaning contamination can be avoided and materials can be recovered without risk to recycling workers.



Using Optional EPEAT Criteria to Help You Meet Zero Waste Goals

When IT manufacturers choose to meet optional EPEAT criteria that address waste to landfills, purchasers have access to products that are created from circular material streams, which include features that extend the product life, that are highly reusable and recyclable, and with efficient packaging.

Examples of optional EPEAT criteria that help meet zero waste goals include:

- Offering bulk packaging option
 - Longer life rechargeable batteries
 - Opt-out program to reduce surplus parts
 - Functionality testing software tools
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Finding the EPEAT Registered Products That Help You Meet Zero Waste Goals

To find products designed to support zero waste goals, purchasers can search the EPEAT Registry at epeat.net. Optional criteria can be found at the bottom of the FILTERS box by clicking on "VIEW ADVANCED SEARCH OPTIONS." Search results will include products that meet all of the selected optional criteria.

Quantifying Your Positive Impact

The Global Electronics Council provides an EPEAT Benefits Calculator that can quantify specific environmental and cost savings associated with the purchase of EPEAT registered products including energy savings, greenhouse gas emission reductions, non-hazardous solid waste reductions, avoided toxic substances, smog formation potential savings, acidification potential savings, water consumption savings, eutrophication potential savings, and energy cost savings. Additionally, the calculator measures non-hazardous solid waste reductions, material conservation, and non-hazardous solid waste disposal cost savings, which are a direct benefit of both required and optional waste criteria.



GEC developed the EPEAT Benefits Calculator with the support of the Eastern Research Group (ERG). ERG previously developed and maintained the US EPA Electronics Environmental Benefits Calculator. GEC empaneled an external technical review panel comprised of representatives from government, academia, research institutes, industry, and organizations purchasing IT products to review the data, assumptions, and analysis underlying the benefits calculator.

Need assistance connecting your organization's sustainability priorities to EPEAT criteria?

Contact PurchaserResources@globalelectronicscouncil.org
