

Cell Phone and Battery Recycling Laws in Europe and the US

Introduction

Several laws passed in the European Union (EU) and the US regulate the take-back of used cell phones and batteries so that they may be reused or recycled rather than discarded in ordinary waste streams. These measures are designed to reduce the amount of waste generated, prevent the dispersal of hazardous materials into our ecosystems, and conserve the earth's limited resources by encouraging more sustainable approaches to manufacturing. This fact sheet highlights policy considerations that should be kept in mind when forming take-back legislation. A companion fact sheet, "An Ounce of Prevention: Environmental Gains from Battery and Cell Phone Recycling," explains the reasons for regulating the collection and recycling of these products and the associated environmental gains.

Effective Policy Provisions for Cell Phone and Battery Take-Back Legislation^a

| Provision | EU Laws | | | US State Laws | | | US Local Laws | |
|---|----------------|----------------------|----------------|---------------|----------------|-------------|-----------------------------|------------|
| | WEEE Directive | EU Battery Directive | RoHS Directive | CA AB 1125 | CA AB 2901 | NY S-8182-A | Westchester County (NY) 702 | NYC Law 97 |
| Ban on disposing to the ordinary waste stream because of the hazardous materials contained in these products, includes penalties for violations | ✓ ^b | ✓ ^b | | ✓ | ✓ ^c | | ✓ | ✓ |
| No-cost consumer returns to encourage greater participation | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ |
| Retailer or producer take-back of products that have been or are being sold | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ |
| Performance standards set for collection and recycling | ✓ | ✓ | | | | | | |
| Reporting requirements for collection amounts | ✓ | ✓ | | ✓ | ✓ | | | ✓ |
| Consumer education about new laws and take-back programs from retailers or manufacturers required | ✓ ^d | ✓ ^d | | ✓ | ✓ | ✓ | | ✓ |
| Sales ban and other penalties for retailers or producers that do not comply with the law | | ✓ ^b | | ✓ | ✓ | | | ✓ |
| Use of best available techniques to protect worker health and the environment; encouraged participation in treatment operations with certified environmental management systems | ✓ | ✓ | | | | | | |
| Design improvements encouraged to phase out the use of hazardous materials and to enhance the reuse and recycling of products | ✓ ^e | ✓ ^e | ✓ ^f | ✓ | ✓ | | | |
| Additional rule-making allowed | | | | | | | ✓ | ✓ |
| Severability clause if one section is found to be invalid | | | | | ✓ | ✓ | | |

^a Abbreviations: WEEE = Waste Electrical and Electronic Equipment, EU = European Union, CA = California, AB = assembly bill, NYC = New York City, NY = New York, RoHS = Restriction on Hazardous Substances.

^b Penalties may be set by member states.

^c Disposal ban established in separate rule.

^d Education requirements may be set by member states.

^e The Directives urge manufacturers to make design improvements.

^f The Directive mandates the phase-out of designated materials.

European Union

Waste Electrical and Electronic Equipment (WEEE) Directive. The Waste Electrical and Electronic Equipment (WEEE) Directive entered into force February 13, 2003, and it required EU member states to develop individual legislation based on its terms by August 13, 2004.¹ The WEEE Directive applies the principle of extended producer responsibility (EPR), a policy approach that seeks to make manufacturers fiscally responsible for managing products that have reached the end of their useful life. For electronics, EPR policies generally require manufacturers to fund the collection, recycling, or safe disposal of discarded electronic products, commonly referred to as “electronic waste” or “e-waste.”

The Directive includes cell phones in one of the ten categories of electronic equipment that it covers. As such, cell phones must be:

1. Collected separately from regular waste or taken back by distributors when a new phone is purchased
2. Handled and processed according to minimum environmental standards whether kept inside or shipped outside EU boundaries
3. Collected and recycled in compliance with minimum targeted rates

In addition, producers, rather than consumers, must finance their “collection, treatment, recovery and environmentally sound disposal” (Articles 8(1) and 9(1)). This requirement of financial responsibility and explicit wording in Articles 4 and 6 encourage producers to develop product designs that improve the ease of reuse and recycling and enhance environmental and worker safety.

Restriction on Hazardous Substances (RoHS) Directive. Related to the WEEE Directive, the Restriction on Hazardous Substances (RoHS) Directive, in effect as of July 1, 2006, sets maximum concentration values by weight of each homogeneous material for lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, and polybrominated diphenyl ethers contained in the listed electrical and electronic equipment.^{2,a}

Battery Directive. The EU Battery Directive on the collection and recycling of batteries entered into force on September 26, 2006, and member states must transpose this Directive into national law by September 26, 2008.³ It covers the collection and recycling of all automotive and industrial batteries as well as increasing proportions of portable household batteries—25 percent by 2012 and 45 percent by 2016. The Directive sets recycling efficiencies that range from 50 to 75 percent by weight, depending on battery type, with a goal of the “highest degree that is technically feasible without excessive costs.”^b Producers must finance the management of discarded batteries and publicize recycling requirements and collection plans. Producers include makers of equipment that contain batteries, such as appliances or automobiles, and battery manufacturers. The Directive also mandates design improvements to reduce mercury, lead, and cadmium content; to enhance the ease of removing batteries from devices; and to provide clear labeling that lists information about battery performance capacities and heavy metal content.

Environmentally sound recycling in the EU. The WEEE and Battery Directives require the use of best available recycling techniques to protect worker health and the environment. Member states are encouraged to use processing facilities that have certified environmental management systems in place.

United States

California. California has passed two laws on cell phone and battery take-back, and their regulatory details reflect the influence of the EU’s Directives. The Rechargeable Battery Recycling Act (AB1125) took effect in February 2006, and it covers small non-vehicular rechargeable batteries.⁴ The law bans rechargeable and single-use household batteries from solid waste disposal; however, *single-use household* batteries are not defined in the law, and take-

^a California has adopted this requirement for a limited number of products. As of January 1, 2007, the state prohibits the sale of TVs, computer monitors, and laptops not in compliance with the RoHS Directive. At the time of writing, California’s law does not cover other electronic devices such as cell phones.

^b “Recycling efficiency” is the percentage of a product that must be recycled.

back funding is not specified.^c Retailers are responsible for collecting and recycling all types and brands of *rechargeable* batteries that they carry. The obligation is limited to amounts equal to those previously sold to the consumer or equal to the number of new batteries sold to a given consumer at the time of take-back.^d Manufacturers and retailers may not charge consumers to cover the take-back.

In addition to collecting and recycling rechargeable batteries, retailers must provide consumers with information about programs for the no-cost return of products by posting signs in stores, including written materials associated with the advertising or sale of products, or directly telling consumers about programs. A notice of no-cost opportunities for returning batteries is also required for catalog, Internet, or other sales that do not occur inside a store. If manufacturers and retailers are not in compliance, they will not be permitted to sell their products in the state. However, the law contains two exemptions: (1) rechargeable batteries contained in or packaged with battery-operated devices at the time of initial sale and (2) retailers who primarily sell food or have annual gross sales of less than \$1 million.

Manufacturers are urged to reduce and phase out as much as feasibly possible hazardous materials contained in batteries. They may also comply with the act by using the collection and recycling system developed by the Rechargeable Battery Recycling Corporation (RBRC), a nonprofit organization set up in 1994 by battery manufacturers. RBRC provides a voluntary recycling program for consumers. The Department of Toxic Substances Control will issue annual reports on the handling and recycling of each type of battery by weight.

The Cell Phone Recycling Act (AB2901) covers “wireless telephone devices for transmissions through cell radio telephone service” and the rechargeable batteries in them.⁵ Every retailer of cell phones has to take back used cell phones for reuse, recycling, or proper disposal. All retailers must provide consumer education on recycling opportunities and must take back phones sold to consumers living in California, whether in a store, over the Internet, or through a catalog. Manufacturers and retailers may not sell cell phones in California unless they comply with the law. Similarly, state contracts for cell phones are not open to bidders who lack certificates showing their compliance with AB2901. The bill also encourages manufacturers to reduce and phase out hazardous materials as well as to improve product design to extend the lifespan of cell phones and allow for easier repair and reuse. The law does not set specific collection targets, but the Department of Toxic Substances Control is responsible for producing annual reports on recycling rates.

New York. On September 13, 2006, New York passed legislation (S-8182-A) that requires cell phone service providers to accept used phones at no charge from customers.⁶ Beginning January 1, 2007, service providers must post a sign notifying customers that phones are accepted or that shipping is provided at no charge.^e The law also requires service providers to take reasonable steps to ensure that collected phones are recycled, reused, or disposed of in an environmentally sound manner.

In December 2005, New York City passed legislation (Local Law 97) on recycling rechargeable batteries, and it came into effect December 1, 2006.⁷ The law bans disposing of all rechargeable batteries weighing less than 25 lbs in municipal waste, and it applies to batteries sold in New York City on the Internet, by phone or mail order, or through in-store purchase. Retailers must take back up to ten batteries per day from any person or a number equal to what a consumer purchases, if greater than ten. The rechargeable batteries should be of a similar size and shape as the retailer offers. Manufacturers and retailers or marketers must bear the costs for collecting and recycling.^f In addition, retailers must post signs that identify the store as a collection site for batteries, and manufacturers are to provide New York City residents with consumer education about battery collection and recycling. Only retailers that primarily

^c Single-use batteries are taken to a household hazardous waste collection facility in California.

^d A “consumer” is defined as “a purchaser or owner of a rechargeable battery” and as “a business, corporation, limited partnership, nonprofit organization, or governmental entity, but does not include an entity involved in a wholesale transaction between a distributor and retailer.”

^e Some national programs already exist to fulfill the requirement to provide shipping at no charge; for example, service providers have postage-paid plastic bags that customers can mail straight to a recycler.

^f Retailers or marketers include distributors that create specific packaging for New York or import items sold there.

sell food are exempt. The law also sets fines for consumers who violate the disposal ban and for retailers and manufacturers that fail to comply with any of their mandated responsibilities.

Westchester County (New York) Local Law 702, which came into effect June 1, 2006, bans the disposal of all cell phones and their batteries in the regular county waste stream.⁸ Phones can be collected at a facility or by an entity that the Westchester County Department of Environmental Facilities (DEF) has certified, including businesses, schools, nonprofit organizations, private programs, and public sites that already accept household chemical waste. Along with the county's Department of Consumer Affairs, the DEF will educate residents and provide updated lists of certified collection facilities. The DEF will also monitor the program. Penalties only apply to citizens who violate the disposal ban and range from an initial warning to a possible \$250 fine for third and subsequent offenses.

Environmentally sound recycling in the US. At the time of writing, no cell phone or battery take-back laws in the US contain provisions that require processors to disclose the reuse and recycling practices that they follow to ensure worker and environmental safety. However, the US EPA's Plug-In to eCycling Guidelines for Material Management provide some basic guidelines for the proper handling of environmentally sensitive materials during recycling.⁹

Some recycling standards depend on businesses to monitoring themselves, while others are certifications based on onsite audits. Standards are available through trade associations such as the International Association of Electronics Recyclers (IAER), the Institute of Scrap Recycling Industries (ISRI), and CHWMEG.¹⁰ Other standards are Stewardship Canada's (EPSC's) Electronics Recycling Standard and the Basel Action Network (BAN) / Silicon Valley Toxics Coalition (SVTC) e-Stewards Certification, which will be available in 2007.¹¹

Sources

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