

How to Collect Fluorescent Lamps: Recommendations and Considerations for Starting a Retail Collection Project

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The Product Stewardship Institute (PSI) and Women's Voices for the Earth (WVE) implemented a pilot retail collection project for mercury products, including compact fluorescent lamps (CFLs), 4-ft. linear fluorescent lamps, and mercury thermostats from May - December 2008.

This successful project has demonstrated that retailers can enjoy direct benefits, in the form of positive public relations and increased store traffic, by offering lamps recycling as a service to their customers. PSI and WVE have developed this factsheet for retailers or others who may want to establish their own mercury product recycling programs and reap similar benefits. It includes information on why recycling fluorescent lamps is important, different types of collection programs, regulatory and funding considerations, and how to get started.

Importance of Retail Collection Programs

Fluorescent lamps contain a small amount of mercury. Because mercury is a potent neurotoxin, recycling of these lamps is encouraged by the Environmental Protection Agency and required in some states and counties. Returning used lamps to a local retailer is a convenient way for consumers to recycle and keeps mercury out of our landfills and incinerators.

Over 290 million CFLs were sold in 2007 in the United States. As more people are using CFLs in order to save energy and cut costs, more retailers around the country are providing CFL recycling for their customers. Retailers recognize that CFL recycling 1) is the responsible thing to do; 2) is a good public relations venture that capitalizes on the current "green wave"; and 3) increases store traffic and brings new customers into the store.

Types of Collection Programs

There are two types of systems for collection: reverse distribution and direct shipping. Retailers should choose the collection program that works best for them. A primary consideration is the number of stores that will likely be involved in recycling in a given geographic area.

Reverse Distribution

In a reverse distribution system, lamps are collected by retailers, consolidated at a distribution warehouse, and then transferred to a recycling facility (see list of recycling facilities, below).

Pros: If enough stores collecting lamps use the same distribution center, reverse distribution will likely be the most cost-effective option because the recycler will receive a large quantity of consolidated materials at one time. Also, transportation costs may be reduced if the truck delivering goods to the retailer has space on the return to "back haul" the collected lamps to the distribution center, eliminating the need for an extra trip.

Cons: If only a small number of stores are involved, reverse distribution is not efficient since it requires coordination among retailers, haulers, distribution centers, and recyclers. Retailers must arrange for pick-up, haulers must anticipate when back hauling will make transportation economical, and distribution centers must have room to store and consolidate spent lamps. Distribution centers must also arrange for transporting lamps to the recycler, package lamps appropriately, and ship lamps on pallets compliant with Department of Transportation regulations.

Cost estimate: Please contact a local recycler (see below) for cost information. Costs and system specifics (such as how bulbs are packaged) vary widely.

Direct Shipping

In a direct shipping system, retailers collect fluorescent lamps using collection bins provided by a recycling facility or contractor. When a bin reaches capacity, the retailer ships the bin using a pre-paid shipping label provided by the recycling contractor. More than one collection bin is useful so that at least one bin is available for bulb collection while the other(s) are being shipped to the recycler.

Pros: For individual stores, this option is likely to be more cost effective than reverse distribution and requires fewer logistical efforts.

Cons: For a group of stores sharing a distribution center this option is more expensive because mail-back programs usually cost more per lamp compared to bulk recycling using the reverse distribution method.

Cost estimate: Costs vary depending on the direct shipping service used. The cost ranges shown here are from national service providers; other prices may be negotiated.

- CFLs: \$60.00 for a container holding roughly 90 CFLs to \$139.00 for a container holding roughly 250 CFLs. Costs range from \$60 (90 CFLs) to \$139 (250 CFLs) for CFL collection bins. Costs include shipping and handling. The larger CFL containers may also be used for round, U-shaped, or 2-ft. linear fluorescent tubes, though this reduces the total number of lamps the box can hold.
- Linear Fluorescents: \$60.00 for a box holding 30 4-ft. linear tubes to upwards of \$100.00 for a box holding 70+ 4-ft. linear tubes. Costs include shipping and handling.

Types of Fluorescent Lamps Collected

Consumers use many types of fluorescent lamps, including CFLs, linear tubes, round, and U-shaped lamps. Linear tubes contain more mercury than CFLs and thus their collection provides a greater environmental benefit. Retailers can choose which types of lamps to collect.

Regulatory Considerations

Under the Federal Universal Waste Rule, retailers are allowed to collect and store mercury-containing products from their customers. Small quantity handlers of universal waste are exempted from most regulatory requirements if they collect no more than 11,000 lbs. Retailers should make sure to select a recycling facility that recycles waste in accordance with federal and state regulations and to follow federal transportation requirements for shipping. For more information on the regulations in your area, contact your state's environmental protection department.

Targeting the Residential Sector

Some retailers choose to limit the number of lamps that a customer can bring in at one time in order to avoid receiving unmanageable numbers of lamps at a time from small businesses. This depends on your consumer base and the level of service you want to provide. Another option is to make clear in your publicity that this service is intended for residential customers only, if that is your target audience.

Funding Collection Programs

There are several options for funding collection programs:

- Retailers cover the full cost of collection and offer the service free-of-charge to their customers.
- Retailers charge their customers a small fee for recycling to cover or defray costs associated with the collection effort.
- Retailers negotiate agreement for cost sharing with supplies and/or manufacturers.
- An outside funding source is used, such as a utility or energy efficiency group provides funding for the program as part of their promotion of fluorescent lamps. Retailers interested in creating a partnership with utilities should call their state or local utility provider.

Getting Started

To find a nearby recycler, or a list of companies offering mail back and/or reverse distribution collection services, visit www.almr.org or www.lamprecycling.org. Prices may vary, so it is wise to do some cost comparisons before selecting a recycler. The following companies offer lamp recycling services:

AERC Recycling Solutions
<http://www.recyclekits.com>

Next Level for Recycling (NLR)
<http://www.nlr-green.com/>

Veolia Environmental Services
www.veoliaes.com

Waste Management Lamp Tracker
<http://www.wmlamptracker.com>

Breakage

Improper handling of fluorescent lamps may result in lamp breakage and the release of mercury. Below are some recommendations on ways to reduce the risk of lamp breakage. It is important to remember that retail locations selling lamps already have many of these products on site, both in use and on the shelves.

- All employees should be aware of collection guidelines provided by the recycler. In order to assist customers, employees need to understand program mechanics and the types of lamps that are accepted. The best way to make employees aware of a lamps recycling programs is through the same communication channels that the store uses routinely to inform employees about new products and services, such as staff meetings, signage in employees-only areas (such as a break room, for example), and the employee manual.
- Keep collection bin(s) in a storage or back room. If collection bins are placed on the store floor where customers have access, breakage may be increased. Only trained store employees should place lamps in bins.
- Post the EPA's guidelines for cleaning up broken bulbs. Make sure employees are aware of the guidelines and where they are posted. For a copy of the guidelines, visit <http://www.epa.gov/mercury/spills/index.htm>.

Employee Education

Educate your employees about this program as you would for any other skills or information they need to learn. Communicate information frequently to sales associates about the benefits of the program (environmental benefits, number of lamps recycled, positive feedback from news media and government agencies).

Include information on what to do in the event of lamp breakage near the collection bin and in your employee manual.

Advertising Collection Programs

You can make your customers aware of this service the same way you let them know about a new or discounted product! Information about the recycling opportunity can be included in newspaper ads or inserts, store signage, and radio or television commercials. Consider placing an ad in a local paper as part of the sales promotions for CFLs, or partnering with a local utility who is promoting efficient lighting in their bill inserts or other materials. Always include information on what types of lamps you collect, and whether or not there is any limit to the number that a customer can bring in at one time.

You can have your store listed as a collection site on Earth911.com by contacting that company directly through their website. Email them at clientrelations@earth911.com if you have any questions.