



# eCycling Advisory Committee

Overview of Compact Fluorescent  
Lamp (CFL) and TV Recycling  
Issues

# [ Issue Snapshot: CFLs ]

- The Commonwealth has established a policy of promoting the use of CFLs to reduce energy demand.
- The average CFL contains 4-5 milligrams of mercury.
- Mercury is a neurotoxin that can be ingested, inhaled, or absorbed through the skin.
- Households are permitted to dispose of CFLs in the trash.

# [ CFL Milestone ]

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- March 13, 2008
  - Dominion Virginia Power and The Home Depot Sell 1,000,000th Energy-Saving Light Bulb!!

# [ Mercury Content in CFLs ]

- The National Electrical Manufacturers Association states the average mercury content in CFLs has dropped at least 20 percent in the past year. Some manufacturers have even made further reductions, dropping mercury content to 1.4 – 2.5 milligrams per light bulb.

# [ CFL Recycling Rates ]

- No requirements exist for industry to track or report recycling rates.
- According to the Association of Lighting and Mercury Recyclers (ALMR), only about 24% of spent mercury-containing lamps are recycled in the United States.
- Of the remaining 76% a small fraction are managed as hazardous waste, but the majority find their way into the municipal solid waste stream.

# [ Federal Law: Background ]

- In July 1999, US EPA added fluorescent lamps to the Universal Waste Rule (UWR). EPA's universal waste regulations streamline hazardous waste management standards for federally designated "universal wastes," which also include batteries, pesticides, and mercury-containing equipment.
- Most states adopted the UWR (including VA)- which allows households to dispose of CFLs in their trash.

# Energy Independence and Security Act of 2007

- Requires all light bulbs use 30% less energy than today's incandescent bulbs by 2012 to 2014. The phase-out will start with 100-watt bulbs in January 2012 and end with 40-watt bulbs in January 2014. By 2020, a Tier 2 would become effective which requires all bulbs to be at least 70% more efficient.
- Technology neutral, therefore there is no mandate that CFL's are required. Additionally, the law contains several exemptions:
  - any kind of specialty light (ie. bulb in refrigerator)
  - reflector bulbs
  - 3-way bulbs
  - candelabras
  - globes
  - shatter resistant
  - vibration service
  - rough service
  - colored bulbs (i.e. "party bulbs")
  - bug lights
  - plant lights

# Snapshot of Recycling Options in the Commonwealth

- Mail-in programs (\$\$\$).
- Retail locations: IKEA and Home Depot.
- Select local waste disposal locations (permanent, monthly, biannual). Not all residents have access to local recycling options.

# [ What Other States are Doing ]

- Partnerships with retail locations (Maine)
- Local municipal recycling locations.
- Note: In the states of California, Minnesota, Ohio, Illinois, Indiana, Michigan, and Wisconsin, it is unlawful for anyone to dispose of fluorescent bulbs as universal waste.



# Issue Snapshot: Television Recycling

# Issue Snapshot: Televisions

- The EPA has sales figures back to 1980, and since then, 704.9 million CRT televisions have been sold in the U.S. An estimated 42.4 percent of those are still in use (298.8 million).
- In 2008, the EPA estimates that 23.9 million CRT TVs will be disposed of by Americans. Numbers for end-of-life TVs have been over 20 million per year since 2005, and are expected to go up to almost 25 million by 2010. Compare this to 10 years ago, when the numbers were closer to 12 million sets disposed of per year.

# The Main Issues: Lead and Volume

- **Prevent CRT Containing Devices From Becoming Hazardous Waste:** CRT's may contain several pounds of lead, which is a toxic substance. When CRTs are broken or destroyed, such as when placed in landfills or incinerators, they release lead into the environment thus making them a hazardous material. Recycling diverts the release of lead into the environment.
- **Save Valuable Landfill Space:** CRT containing devices such as computer monitors and televisions are bulky items. The disposal of these devices can drive up the rate at which landfills will reach their capacity.

# [ Television Recycling ]

- According to the EPA's estimates for 2006 to 2007 only 18 percent of TVs (by weight) were recycled. The rest went to landfills.
- Looming transition to digital signal only...will there be a flood of TVs heading to landfills?

# [ Two State Models ]

- **Producer Responsibility**  
This is sometimes called EPR or Extended Producer Responsibility, which means that the product manufacturers take responsibility for their products once they are ready for disposal. The manufacturers pay for collection and recycling of the products. All states with e-waste recycling laws except California have chosen this model.
- **ARF - Advanced Recycling Fee**  
The ARF model charges the consumer a recycling fee at retail, which goes into a statewide recycling fund, that the state uses to reimburse recycling costs. The manufacturers have no responsibility under this approach. Only California has adopted this model.

# [ Response by the States ]

- 11 States and the City of New York have TV recycling laws.
- All but one state (CA) have a producer responsibility model.

# [ 2008 Workplan ]

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- Identify issues for study and gather background materials and information.
- Determine if legislative action needs to be taken during the 2008 Session.
- Develop legislative proposals for consideration by JCOTS.