

**Testimony of Thomas K. Fidler, Deputy Secretary
Department of Environmental Protection
Before the
Senate Environmental Resources and Energy Committee
June 18, 2008
Harrisburg, PA**

Good morning, Chairman White and members of the committee. My name is Thomas Fidler, and I am deputy secretary for waste, air and radiation management in the Department of Environmental Protection. On behalf of Secretary Kathleen McGinty, I would like to thank you for the opportunity to appear before you today to present information on the commonwealth's integrated approach to the proper management, recycling and reuse of unwanted electronic equipment.

First, I would like to compliment the committee for its interest in electronics recycling. Nationally, electronic waste recycling has garnered significant interest with 13 states now having legislation directing that electronic waste be recycled. The department is very pleased that this legislative body has joined in that national discussion regarding the recycling and proper management of these materials.

Electronic waste is difficult to manage from several perspectives. Many electronic devices are bulky and difficult to handle and often contain metals such as mercury and lead—materials best managed in a way to keep them out of our landfills and our environment. Also, as opposed to plastic, paper, aluminum and other commonly recycled materials that are currently enjoying all-time highs in values per ton, e-waste items generally have a negative value due to their bulk, as well as the transportation, management and disassembly costs. Finally, as opposed to other recycled commodities, the required infrastructure and resources to ensure that unwanted electronic equipment will be recycled and reused is still growing and has not yet matured fully. Developing these essential components is essential to ensuring that that e-waste recycling entities operating in the commonwealth and creating jobs here can succeed. .

For each new product that comes along, one or more becomes outdated or obsolete. Consequently, across America citizens are storing or discarding older electronic products faster than ever. A study by the U.S. Environmental Protection Agency reported that in 1998, about 20 million computers nationwide became obsolete in one year. In the same report it was estimated that in 2005, about 130,000 computers were discarded in a single day. According to Consumer Electronics Association (CEA) estimates, an estimated 304 million electronics including computers, TVs, VCRs, cell phones and monitors—were removed from US households in 2005, with about two-thirds of these products still in working order. EPA reports that in 2005, used or unwanted electronics amounted to approximately 1.9 million to 2.2 million tons. Of that, about 1.5 million to 1.9 million tons were primarily discarded in landfills, and only 345,000 to 379,000 tons were recycled. A municipal waste composition study completed by DEP in 2003 shows that, statewide, electronics comprise 1.5% of the waste stream, equaling about 138,000 tons. The department anticipates that there will be a continued increase in electronic waste, especially televisions as a result of the transition from analog to digital television broadcasts and increased sales of flat-screen televisions and computer monitors.

As mentioned in my opening, household electronics recycling differs from the recycling of more traditional materials such as aluminum cans and newspaper in that the volume of e-waste we see in today's waste stream is far less. Consequently, this limits the economic opportunities we can realize in Pennsylvania. Even considering the profitable refurbishing and resale of computers, the value of the materials – mostly leaded glass, hybrid plastics and metals – separated from the equipment in the current marketplace does not cover the cost of transportation, or the labor involved in physically disassembling the equipment. Hence, most electronic recyclers charge fees to accept materials. This charge, including transportation, ranges between 10 and 30 cents per pound.

DEP has been assisting communities throughout the commonwealth with electronics recycling in a number of ways. Funding is available to local governments through our Household Hazardous Waste program where up to 50% of the cost of electronics recycling collections is reimbursed. Funds obtained through EPA under the federal Resource Conservation and Recovery Act are also used to support local programs. These funding sources have allowed us to expand the number of collections available to residents in Pennsylvania.

Here is some of what has been accomplished:

- Almost 7.5 million pounds of unwanted electronic equipment has been recycled.
- At least 46 communities throughout the commonwealth have held electronics recycling events with many more planned for this year and next.
- 14 counties have established ongoing e-cycling programs.
- Most scheduled collections have accepted all electronics, including those often overlooked such as VCRs, tape decks, DVD players and televisions. Nationally, many collections accept only computers and peripherals.

Mutually beneficial partnerships have been forged with federal, state and local governments, as well as the electronics industry and electronics recyclers. Some of our successful partnerships include:

- Partnering with EPA Region 3 and the Region 3 states to establish the nationally acclaimed "E-cycling" project.
- Funding provided from 14 electronics manufacturers has offset the cost of recycling.
- With the help of Eco International, a Pennsylvania recycling company, we have partnered with Panasonic, Sony, Sharp, JVC and Lexmark. These companies pay for the costs of recycling their products. We continue to encourage other companies to join in this effort.
- Working with municipalities to conduct multi-municipal cooperative collections. To date, 16 counties in Pennsylvania have participated in multi-municipal collections.

The National Electronics Product Stewardship Initiative has involved many state governments, original equipment manufacturers, local governments, EPA, non-governmental organizations and environmental groups in a dialogue to create a national funding mechanism for recycling electronics. Although stakeholders were unable to agree on a single national system, many of the electronics recycling programs we see operating today both inside and outside of

Pennsylvania grew out of this dialogue. We continue to work with the Product Stewardship Institute as they explore the development of federal legislation.

Electronics are regulated in Pennsylvania as a non-hazardous waste under our residual waste program. This affords the most flexibility to encourage recycling of the equipment, allows for minimized reporting and waste handling requirements for our businesses and ensures environmental safety for our residents. A general permit has been developed to ensure recycling of electronics in Pennsylvania follows accepted standards. So far, 10 companies have obtained the general permit to de-manufacture electronics, four more permit applications have been received by the department and are under consideration, and three more companies are preparing applications.

The department will continue to actively support the recycling of unwanted electronics in the commonwealth. We will continue to fund counties and other organizations that wish to provide electronics recycling to their residents, and will seek to expand our Household Hazardous Waste grant program in which up to 50% of the costs of recycling electronics are reimbursed. Priority is given to counties that have a high level of interest in establishing permanent collection sites. Permanent collection sites are more economical for electronics recycling companies to service; provide a more dependable inflow of materials; and most importantly provide the public with a continuous opportunity to recycle e-waste at their convenience rather than during periodic collection events. With permanent operating facilities, recyclers are usually able to offer a lower set price for accepting materials. Integrating a permanent collection site into an existing recycling facility provides a low-cost alternative for public recycling facilities to offer ongoing electronics recycling programs to their residents.

I have spoken of the programs in place at the department to encourage electronics recycling, and the success of our efforts to further e-cycling in the commonwealth. Through our investment in these programs, and especially through educational efforts regarding the importance of electronics recycling, a stewardship ethic has been instilled in electronics consumers in the commonwealth. Regardless of the past successes of the department programs, in order to continue to meet the demand of managing the future growth in electronics discards, it is time to establish a more comprehensive approach through legislation. We welcome the opportunity to participate in that effort.

The department believes that legislation should include two primary features: a ban on land filling e-waste and a mandate requiring manufacture and retailer participation in recycling programs.

First, a landfill ban can be instrumental in not only prohibiting the disposal of electronics in landfills, but also in establishing a more reliable and consistent flow of materials to support the developing electronics recycling market. To date, 10 other states have instituted landfill bans on electronic materials. A necessary precursor to such legislation, of course, is the development of the recycling infrastructure necessary to manage the commodity flows that a ban would evoke. Ten companies in Pennsylvania are operating under permits to de-manufacture electronics. A landfill ban on electronics would boost business to these companies, as well as spur the establishment of new companies that recycle electronics. The time is now right in Pennsylvania to begin phasing in over a period of time a ban of electronics from landfills.

Second, in order to prevent these potentially hazardous materials from being land-filled or illegally dumped once the landfill ban is imposed, legislation would need to be developed that establishes the necessary infrastructure through a program supported by electronics producers and vendors.

To summarize current state legislation, out of the 13 states with e-cycling legislation, 12 states have instituted producer responsibility legislation for manufacturers of electronic equipment, whereas California has implemented an advance recovery fee (ARF) on the sale of new electronic items. An ARF is a fee paid by consumers at the time of purchase of an electronic item such as a television, computer or computer monitor and is used by the state to fund an electronics recycling program. This year alone New Jersey, Oklahoma, Virginia, and West Virginia have all passed laws requiring the recycling of various electronic devices. Furthermore, a number of manufacturers and retailers have initiated take-back programs independent of state legislation, including Staples, Best Buy, Sony, Apple and Dell, among others.

The trend across the nation, in both proposed and enacted legislation, is to require manufacturers to be responsible for implementing and managing e-cycling programs. This is sometimes called EPR, or an extended producer responsibility, which assigns the manufacturer financial responsibility for their products when they become obsolete. There is no doubt that, as in the advance recovery fee model used in California, the consumer may ultimately pay for the recycling in the upfront purchase price of an electronic device; however, the extended producer responsibility model does provide a market incentive for manufacturers to design and assemble products that minimize or eliminate the use of toxic materials in products and produce products that are cheaper and easier to recycle.

In further defining how e-cycling would be instituted in the commonwealth, the department is specifically interested in a shared responsibility model where manufacturers and retailers take ownership of e-cycling and financially support the development of new and retention of existing recycling infrastructure involving either a third-party organization, or a program where retailers serve as the drop-off point for electronics that they sell. Most importantly, the department recognizes that all parties—the manufacturer, retailer and the consumer—have a shared responsibility in addressing this important issue.

Lastly, I would like to mention a significant regulatory effort the department is undertaking. One very important component is the installation of phased commodity bans, which are currently under review by the Solid Waste Advisory Committee and many other groups, and which will prohibit certain recyclable materials from disposal at landfills. The bans would be accomplished in a phased manner that would provide a limited, but adequate time for implementation based upon the respective material. The proposed banned materials currently include all the recyclables already contained in Act 101 and additional bans on white goods, land clearing and grubbing waste, wood pallets, cathode ray tubes, waste oil and used oil filters, shredded tires, unpainted wood, yard waste, mercury-containing devices and bulbs, oil-based paints, source-separated food waste, mattresses and box springs and rigid plastics.

One of the overarching goals for the department is to strive for all Pennsylvanians to have convenient and reasonable access to proper waste disposal and recycling. The achievement

of this goal coupled with the proposed commodity bans on land filling will result in consistent feedstock of materials to existing businesses while fostering sustainability, promoting economic growth and creating new jobs in the commonwealth.

Secretary McGinty and I thank you for inviting the department to address the committee and share information on the commonwealth's electronic recycling efforts. I will be glad to answer any questions you may have.