

Recycling Online

Booting up e-cycling – Part 1

by Roger Guttentag



Once upon a time, the only electronic device I owned was an early model HP calculator which I treasured greatly because it saved me from the drudgery of learning how to use a slide rule (a mechanical analog computer that few people under 40 will recognize). Of course, you all know where this is going. I pull the handle on my imaginary time machine and suddenly, as the years progress, my inventory of digital gadgets multiplies rabbit-like to the point where it becomes a challenge to keep track of those I still use from those that I no longer need. This situation is further compounded by the plethora of new products launched every year that either promise to be even better than what I own or demonstrate how they solve problems I didn't know I had.

The result was a rising flood of electronic product discards that, at first, we did not know the size of or how to manage it. However, this situation has changed to the extent that presently 25 states [see the story by John Britton and Levi Jones on page TK for details on those states] have either enacted or are considering legislation addressing end-of-life (EOL) issues for electronic products and the number of e-scrap recycling collection programs sponsored by local governments or private businesses have grown significantly over the last 10 years. Still, much remains to be done which is why I will be devoting this month's column and the next one to this topic. The principal focus for this month's review will be on Web resources that provide a good introduction to the current state of EP management within the U.S. with regard to problems, policies and programs.

Let's start with some pictures

Management of EOL electronics, like many other similarly broad and complex topics, requires a vast array of statistical data to describe what is happening and why. Plowing through tables of numbers is, at least for most of us, an exercise that can lead to a form of brain numbness. Fortunately, there is a growing reliance on the use of infographics, which is a method for visually transforming dense sets of descriptive statistics into easy to understand graphics, to make this information more accessible to mere mortals as well as more interesting to read. In the course of my research for this column, I came across infographics on the websites of Fast Company, Server Monkey and Well that all did a nice job of showing the current state of e-scrap management and included information such as disposal rates, where the discards go and what could be gained by increasing electronics recycling rates. Furthermore, they all provide Web references for their data sources.

Current legislation and programs

The U.S. Environmental Protection Agency's e-Cycle section of its Web site has a directory of links, located by selecting "Where You Live," to either the environment department home or e-scrap program page for each state. However, be aware that even though the Where You Live page says that it was last updated July 26, 2013, I still found a few dead or outdated links.

There are also three Web sources of information on current enacted or proposed state legislation that are recommended as research starting points:

Sustainable Electronics Initiative (University of Illinois) – The Law & Policy section has a detailed and up-to-date summary listing by state that can be downloaded from its site. Information on each state row is divided between legislation that addresses electronic products discards and e-scrap disposal bans with links to the legislative text and the dates for when each bill was passed and takes effect. The table also identifies which products are covered by each legisla-

tive action such as TVs, computers, printers and various types of mobile devices. There are other links to pages providing information on federal laws and regulations and legislative profiles adopted internationally such as in Canada, Asia and Europe.

Electronics TakeBack Coalition (ETBC) Legislative Toolbox – The ETBC provides a more comprehensive overview of state legislation covering e-scrap that has been adopted within the last 10 years (as of October 2011) by providing tabular summaries of the following:

- Comparison of 25 states with e-scrap legislation.
- Data on quantities collected.
- Who gets free e-scrap recycling services.
- What products are covered.
- Which products are banned from disposal

In addition, there is an analysis that discusses 10 lessons that have emerged from the experience of these states. Some, such as landfill bans boost recycling rates and consumers want to be able to take all their unwanted electronics to a single location, are obvious. Others, such as the possibility of legislative text inadvertently discouraging reuse, are not. In general, it is a useful guide to how future legislation should be crafted or amended.

National Center for Electronic Recycling (NCER) – The NCER site has a 2013 PowerPoint presentation that provides another descriptive summary of e-scrap state legislation within the U.S. One very useful segment of this presentation provides a discussion of five different program models that the states can be organized into. In addition, several slides show per capita collection data for states that have this information available.

Have device, will recycle

There are several websites that specifically focus on providing information to individuals, businesses and organizations that are looking to find an e-cycling program to meet their needs. All sites listed below are national in their search scope.

Telecommunication Industry of America E-Cycling Central – You can select a state from either a map or a pull down list. You are then taken to a list that can be sorted alphabetically by program name, program type, city or zip code. Each program name is a link to another page that provides additional contact information, services provided, devices accepted and any certifications that have been earned.

Consumer Electronics Association Greener Gadgets (CEAGG) – This site provides a program search based on the entry of a zip code. Search results are presented in a list with contact information along with links to additional information (if any) and travel directions based on Google Maps (make sure starting point A is based on your zip code). The complete search results are also presented in a single Google map box. According to CEAGG, only industry programs using certified third party recycling service providers are shown in the search results.

e-Stewards – This is a certification program that was developed and managed by the Basel Action Network, an organization that is dedicated to the adoption of responsible management practices for toxic materials, especially those from end-of-life electronic device discards. Companies achieve e-Stewards certification by passing annual audits by an accredited third party that verify their compliance with ISO 14001 environment management system principles, responsible recycling practices, compliance with the requirement mandated by international hazardous waste treaties and other critical standards set out by this program. The site also has a map showing locations of companies that are currently undergoing certification or have achieved full e-Stewards

Web Address Directory

Consumer Electronics Association – Greener Gadgets	www.greenergadgets.org
Electronics Recycling Coordinating Clearinghouse	http://ecycleclearinghouse.org
Electronics TakeBack Coalition – Legislative Toolkit	http://tinyurl.com/ETBC-Toolkit
E-Stewards	http://e-stewards.org
Fast Company – Visualizing the World’s E-Waste Problem (Infographic)	http://tinyurl.com/FC-E-waste
Institute of Scrap Recycling Industries – Electronics Recycling	http://tinyurl.com/ISRI-E-Scrap
National Center for Electronics Recycling	www.electronicrecycling.org
Server Monkey – The Growing E-Waste Epidemic (Infographic)	http://tinyurl.com/SM-E-waste
Sustainable Electronics Initiative – Law & Policy	http://tinyurl.com/SEI-Law
Telecommunication Industry Association – E-cycling Central	www.ecyclingcentral.com
U.S. EPA – eCycling	http://tinyurl.com/EPA-E-cycling
Well Home – Electronic Waste - Where Does It All End Up? (Infographic)	http://tinyurl.com/WH-E-waste

certification. Each listed company name is a link to that firm's website.

Next month

My survey on electronics recycling continues next month with an emphasis on programs that are seeking to evolve the current electronic product development and manufacturing system into one that is more environmentally sustainable and more supportive of reuse,

waste and toxics reduction and other environmentally preferable attributes in addition to recycling.

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