

US Senate Committee on Homeland Security and Governmental Affairs
Recycling Electronics: A Common Sense Solution for Enhancing Government Efficiency and Protecting
Our Environment
Wednesday, February 27, 2014
Statement for the Record
Submitted by:
Institute of Scrap Recycling Industries

The Institute of Scrap Recycling Industries (ISRI) appreciates the opportunity to file a statement for the record of the Feb. 27 hearing on *Recycling Electronics: A Common Sense Solution for Enhancing Government Efficiency and Protecting Our Environment*. ISRI represents more than 1,700 companies nationwide that process, broker and industrially consume scrap commodities, including metal, paper, plastics, glass, rubber, electronics and textiles. As the fastest growing segment of the recycling industry, ISRI represents upwards of 400 companies that handle used electronics products (UEPs) at more than 675 locations throughout the U.S. and around the world. ISRI supports safe, responsible recycling of UEPs, which is good for the environment and good for our economy in the US. ISRI is committed to working with government agencies, industry and non- profits across the US to spur increased electronics recycling.

The United States is the world's largest market for electronics, thus generating large quantities of used electronic products each year, estimated between 7-8 million tons. The recycling of UEPs is currently flourishing in the US, with tremendous growth over the last 10 years. Latest figures show this maturing segment of the industry provides a boost of approximately \$20.6 billion to the U.S. economy (up from less than \$1 billion in 2002) and employs more than 45,000 full time employees (up from 6,000 in 2002), recycling over 4.4 million tons (up from less than 1 million

These UEPs are collected from both consumers and businesses, evaluated for their value, and then classified as working electronic products and parts to be refurbished and resold, or as non-working goods to be recycled into scrap commodities either in the United States or abroad. Commodity metals, plastics, and glass are used as raw materials in manufacturing processes and circuit boards are sent to smelting facilities to recover gold and other precious metals.

The overwhelming majority of UEPs are recycled in the United States. The Dec. 2013 MIT/NCER study funded by the EPA found that more than 90% of used electronics collected domestically are recycled in the US. Similarly, a 2013 USITC report (*Used Electronic Products: An Examination of US Exports: Investigation No. 332-528, Feb. 2013*) (USITC report), found that 93% are being reused and recycled in the US. Of the 7% that are being exported, only a small amount is being sent overseas for disposal.

ISRI's comments focus on three opportunities to spur the US electronics recycling market: (1) *Increase collection of UEPs from households;* (2) *Design new electronics products for recycling;* (3) *Maximize the role of the federal government.*

(1) Increase Collection of UEPs from Households

Increasing the amount of household recycling and preventing UEPs from being disposed of in landfills provides the largest opportunity to increase recycling of UEPs and increase jobs in this industry. One of the biggest challenges and opportunities is raising consumer awareness about how to responsibly recycle their UEPs.

Currently, the US market is driven by UEPs collected from businesses and commercial interests. This stream of high quality, uniform equipment comprises about 75% (3.3 million tons) of the UEPs being recycled. In the alternative, the Environmental Protection Agency estimates that only 25% (1.1 million tons) of UEPs from households and residences are being recycled. This is despite the fact that the consumer market is the largest market for new electronic products. Based on these numbers, ISRI estimates that there is another 3 million tons or more of household UEPs still moving to landfills or remaining in our closets, basements, and garages.

Educate the Consumer about Recycling

A 2013 Harris Interactive Poll found that consumers lacked knowledge about recycling of used electronics. The Harris survey found nearly 70% of American adults have recycled at least one type of small electronics product in the past. Such products include: ink or toner cartridges, cell phones, desktop monitors, laptops, printers, computers, keyboards, and a mouse. Yet, that still leaves nearly 75 million Americans (31%) who have never recycled UEPs, primarily because they did not have the right information. This figure includes 39% of younger adults ages 18-34 who have never recycled any small electronics. Among the reasons given for not recycling (respondents had the option of choosing multiple reasons)

- 26% did not know where to recycle electronics;
- 16% did not know how to recycle them securely;
- 14% did not know their device(s) could be recycled;
- 12% thought it was too much trouble to recycle; and
- 6% thought the device(s) were supposed to be disposed of in the trash.

The survey also found that despite the lack of information regarding electronics recycling, 97% of American adults would recycle their small electronics. Armed with such information, ISRI has embarked on several collaborative initiatives to increase consumer awareness on how to responsibly and safely recycle UEPs.

Earth911/ISRI Education Effort

ISRI and Earth911, a subsidiary of Quest Resource Holding Corporation, formed a partnership designed to educate the public about the importance of recycling and living a lower-waste lifestyle. The strategic partnership brings together the knowledge of ISRI's industry experts and Earth911's ability to reach and engage an audience of more than nine million readers interested in reducing waste and learning more about recycling. The partnership will have several key components, including ISRI provided content for

Earth911's website, monthly newsletters, and a series of educational infographics. Additionally, the two organizations will conduct quarterly polling to gather data on the public's view of recycling. ISRI members will also be featured in the Earth911 Recycling Guide to help consumers find nearby recyclers.

ISRI is working with Earth911 on a new public awareness initiative called Project Reboot. Project Reboot is designed to increase and encourage the safe and secure recycling of household electronics. The campaign aims to bring together businesses, corporations, and civic groups to educate the public on the need to responsibly recycle electronics. Year-long education efforts will not only focus on the need to recycle electronics, but also on the importance of doing so responsibly. Emphasis will be placed on recycling electronics through a certified recycler who operates at the highest level of environmental, health, and worker safety standards, and guarantees secure destruction of all personal data. In addition, there is an [electronics recycling pledge](#), social media components (including an interactive [Facebook page](#)), print materials to promote safe recycling habits, recycle and reuse tips, and more.

JASON Project

ISRI is currently working with The Jason Project to develop school curriculum to help teachers and students understand both the importance of recycling and the recycling industry. The campaign includes branded, standards-based, K-12 curricular experiences; interactive Web-based experiences to enhance student engagement; classroom posters featuring ISRI's key educational messages; a leveraged national distribution network; strategies for school visits to ISRI facilities; age-appropriate lessons for grades K-4, 5-8, and 9-12; for each grade band, a two to four page classroom lesson based on life cycle for each commodity; and much, much more.

Keep America Beautiful/ISRI PSA

Last year, ISRI partnered with Keep America Beautiful (KAB) in support of an Ad Council administered public service advertising campaign titled "I Want to Be Recycled," whose goal is to restart the conversation about recycling. In a society where each American produces 4.4 pounds of trash each day, this campaign aims to raise awareness and ultimately provide the motivation to change the occasional recycler into an everyday recycler.

ISRI believes that, combined with other collection programs such as the USPS Blue Earth Federal Recycling Program, these initiatives will help to raise consumer awareness about the value of recycling UEPs in a responsible and safe manner.

(2) Design New Electronics Products for Recycling

When manufacturers design their products for recycling, they provide valuable renewable resources for the manufacture of new products and prevent landfill dumping. Begun more than 25 years ago, ISRI's Design for Recycling® (DfR) initiative encourages manufacturers to think about the ultimate destiny of their products during the design-stage of a product's development. ISRI advocates for the design and manufacture of goods that at the end of their useful life can be recycled safely and efficiently.

There are several market based programs, consistent with ISRI's DfR policy, that have demonstrated success in improving the design of UEPs: US EPA's Environmentally Preferable Purchasing (EPP) Program, the Electronic Product Environmental Assessment Tool (EPEAT®), which was developed under an EPA grant, and the EPA's Design for the Environment (DfE) Program.

There are a number of existing design challenges. For example, original equipment manufacturers (OEMs) use of mercury. The new technology in flat screen monitors utilizes a system of lamps containing mercury powder. These mercury lamps are very time consuming to remove or replace, which makes this new technology difficult to recycle. Similarly, some of the cell phone batteries with small traces of mercury take up to five minutes to remove. And laptops contain tiny mercury lamps that are very difficult to locate and remove. In the end, it takes a lot of extra time to recycle in the proper manner. This drives up the labor costs, which makes recycling these products less profitable. The EPP, EPEAT®, DfE, and DfR® will help to avoid these additional costs and improve recycling efficiency.

Collectively, these programs encourage, and have already spurred, the design, manufacture, procurement, and use of greener electronics, as well as the recycling of used and end-of-life electronics. ISRI welcomes the opportunity to further work collaboratively with other stakeholders to develop a market-based approach to greening the life-cycle of electronics.

(3) Maximize the Role of the Federal Government

ISRI supports President Obama's National Strategy for Electronics Stewardship (National Strategy), which details the federal government's plan to improve the management of electronics products throughout its lifecycle. ISRI applauds the National Strategy and encourages the federal government to continue to actively implement its recommendations. There are a number of goals within the National Strategy that ISRI feels could positively impact this market.

Build Incentives for Design of Greener Electronics

As the largest procurer of new electronics products, the federal government can use its purchasing power to reward manufacturers that have designed their products for recycling. As mentioned above, the EPP, EPEAT®, and DfE Programs have already demonstrated their effectiveness in addressing such impediments. The federal government should use and leverage these existing programs to further encourage the design, manufacture, procurement, and use of greener electronics standards.

Ensure a Competitive Market

A competitive market is vital to the health of this maturing industry. As the federal government becomes the largest market holder of UEPs, it is vital to ensure a competitive and open-market process that allows electronics recycling companies to compete for such contracts. While ISRI is encouraged by the National Strategy's commitment to make convenient, and cost effective collection of UEPs from the federal government and from agency employees, as seen in the US Postal Services Blue Earth Federal Recycling Program, we need to make sure that the flows of such collected UEPs are redistributed in a competitively bid market.

Utilize Certified Electronics Recyclers

The National Strategy requires the federal government to only use companies that have been certified to independent third party certifications, such as R2:2013 and the Recycling Industry Operating Standard (RIOS)[™] or their equivalents. The R2/RIOS[™] certification is solely for electronics recyclers to demonstrate to customers that electronics are being recycled with the highest standards for data privacy, environmental controls, employee health and safety and corporate responsibility. These programs have changed the landscape of the industry and most feel that being certified is now a cost of doing business as an electronics recycler. As an example of this tremendous progress, the R2 program alone has grown from just one (1) facility being certified in 2009 to now 519 facilities in 14 countries. ISRI strongly supports this effort and is committed to promoting the benefits of such certifications not only here at home but abroad.

Generate Better Market Data

The federal government is in a unique position to quantify the amount of UEPs generated by the federal government and its employees. As mentioned above, there are a number of recent studies that begin to define the value and volume of UEPs that are being collected and recycled in the United States (USITC). ISRI remains committed to furthering these goals. However, as we pursue these goals, we need to make sure that individual privacy rights and confidential business information is considered for recyclers before requiring any additional tracking requirements.

In the alternative, ISRI supports efforts to develop new custom Harmonized Tariff System definitions to identify and separately track sub-categories of UEPs that are likely not being tracked:

- Functional, used/second-hand electronics equipment being exported for direct resell;
- Repairable electronics equipment being exported for repair, refurbishment or remanufacturing; and,
- Non-repairable electronics equipment being exported for manual and mechanical recycling

Enforce Existing Laws

In order to reward companies that are committed to playing by the rules, there must be a penalty for violating the law. Before policymakers contemplate the need for new laws, we need to commit resources and dollars to enforce existing laws.

Perhaps the most significant enforcement opportunity is to enforce the federal Cathode Ray Tube (CRT) rule. Predominately because of lead contained in the CRT's found in older televisions and monitors, there is a negative costs to recycle these UEPs. Therefore, as the US market has become hyper-competitive in securing greater volumes of UEPs, agreeing to take CRTs for a cheaper or no costs option, some companies have begun to stockpile CRTs in warehouses across the US and, at times, abandon them. Abandoning unprocessed CRTs is not only irresponsible, it is illegal. ISRI supports efforts by the federal government to ensure that the CRT rule is properly enforced to address this growing problem.

There is also an opportunity for the federal government to work with the existing certification programs, such as R2 Solutions for R2:2013, ISRI Services Corporation for RIOS™ et al, to ensure that any company knowingly stockpiling CRT glass or sending CRT glass to be stockpiled will have their certification suspended or revoked and, as a consequence, become non-eligible to bid for government contracts.

In addition to the CRT rule, electronics recyclers must adhere to the Resource Conservation and Recovery Act (RCRA), the Clean Air Act, the Clean Water Act, the Comprehensive Environmental Recovery, Compensation, & Liability Act (“CERCLA” or “Superfund”), and occupational health and safety requirements within OSHA. In addition, electronics recyclers must adhere to state requirements, as well as US export laws and regulations and the import requirements of foreign countries.

Conclusion

ISRI thanks the Homeland Security and Governmental Affairs Committee for the opportunity to submit comments for the record. The US electronics recycling industry has come a long way in the past ten years, but there is still much work to be done. ISRI and its members stand ready and willing to work with any and all stakeholders to further spur this market. It is our commitment and goal to continually improve this segment of the recycling industry, not only here at home but abroad, until it, too, can sustain itself in the global recycling economy.