

# Recycling of Household Electronics Recommendation - September 2009

**Requested by:** Utah State Legislature in  
*Recycling of Electronic Waste Joint Resolution (S.J.R. 4)*

**For:** Natural Resource, Agriculture, and Environment Interim Committee

**Prepared by:** The Recycling Coalition of Utah's Electronic Scrap Committee  
(RCU E-scrap Committee)  
in conjunction with Utah Department of Environmental Quality (DEQ)

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This document addresses the issue of recycling household electronic items. It is written by the RCU E-scrap Steering Committee, a stakeholders group, in response to a request made by the Utah State Legislature in the *Recycling of Electronic Waste Joint Resolution (S.J.R. 4)*. The document includes a summary proposal, followed by detailed recommendation to develop legislation for a statewide electronics-recycling program, ideas, an outline on program design, and rationale explaining recommendation development.



## Summary Proposal

**Overarching Goal** - Reduce the levels of consumer electronic products reaching Utah's landfills while promoting the design of electronic products that can be more readily recycled at the end of their useful life.

### Proposed Methods to Achieve the Overarching Goal:

1. Utilize and modify ideas from the 19 States and New York City that have developed this type of Legislation to arrive at the best possible solution for the State of Utah.
2. All consumers defined as individuals and household businesses within the State of Utah will be able to deliver their e-scrap to convenient collection points located in every county within the State of Utah to be recycled free of charge.
3. E-scrap for this recycling program will consist of the following:

computers (CPUs) and laptops

computer associated peripherals (mouse, keyboard, any desktop device that prints, scans, copies, or faxes)

computer monitors and televisions

4. Costs for the program will be covered in large part by manufacturers whose products are sold in Utah. This will occur in following two ways:

a) *Registration Fees:* Each manufacturer will register with the State of Utah in order to sell their product(s) in Utah. Once registered, any retailer in Utah will be able to sell that manufacturers' product. Following at least one year of sales by the manufacturer, the manufacturer then pays an annual registration fee. This fee would cover the State's cost for administration of the program. Details of the fee schedule, timing, and funding will be addressed in the Legislation. It is important to note this fee would eliminate any fiscal note pertaining to this Legislation.

b) *Recycling Costs:* Manufacturers will pay the entire cost of transportation and recycling of e-scrap based on a market share approach for TV's and a market or return share approach for computer related equipment.

5. Businesses who would like to recycle e-scrap or manufacturers who would like to develop their own (parallel) system for recycling electronics in Utah will register and certify with the State. Costs associated with collection and transportation of the e-scrap would be market driven.
6. Each year, every registered manufacturer would be assessed an amount to recycle. This amount would be based on market share and would include the weight of the material sold for a given year. Each registered manufacturer would then be assessed a recycling commitment for the year based on weight for market share or brand for return share for the following year.
7. Certified recyclers, including manufacturers who certify as recyclers will go about collecting, transporting, and recycling e-scrap material. Recyclers will submit reports to the State showing the weight of the material recycled for TV's and the brand/weight (brand if return share, weight if market share) of material recycled for computer related equipment. The recycler could bill the manufacturer directly based on the weight assessed to each manufacturer. This assessed or predetermined weight will be based on a market share approach for TV's. For computer equipment, this would be either a similar approach using market share or a different approach using a return share. The State will reconcile the amounts of material being recycled and any adjustments for over or under billing would be made accordingly.
8. A manufacturer that pays for more than their share of recycled material in a given year would be given an offsetting credit based on the following year's assessed share of recycling. A manufacturer that under pays their share of assessed material to be recycled would receive either a bill by the State to be paid out to all registered recyclers or that manufacturer would be assessed an additional amount the following year for recycling. Consistent reconciliation should reduce major overages or under payments on behalf of manufacturers.

Manufacturers are encouraged to have parallel recycling programs, but will still need to register as a recycler and pay for their share of the e-scrap not recycled by their parallel program.

9. It is proposed that collection points or sites be set up in every county with additional sites in the more populated counties.
  - a) Costs of operating and maintaining the collection sites will be covered by the collecting entity, either a local county government, solid waste district, or health department. Local government will provide staff and resources to establish convenient collection points for the communities they serve, advertise the services and coordinate collection services by State certified recyclers. Local government entities would have the option to participate or not.
10. State sanctioned or certified recyclers must be approved by the State DEQ or a third party entity approved by DEQ.

## Program Details and Documentation:

**Background:** The RCU E-scrap Committee, a stakeholders group associated with electronics recycling (participant list, Addendum 1), began meeting in 2005 to evaluate options for managing the large increase in electronic items being discarded. Participants knew many of the discarded items contained toxic materials, and these items were ending up in landfills. Participants also knew many components of these discarded items actually had scrap value to industries when items were disassembled for parts. Due to the scrap value, the term *e-scrap* became the moniker of choice for these items rather than referring to them as electronic waste (e-waste) or garbage.

In 2008 the RCU E-scrap Committee collaborated with Utah State Senator Scott D. McCoy on the *Recycling of Electronic Waste Joint Resolution (S.J.R. 4)*,<sup>1</sup> passed in 2009. *S.J.R. 4* requested the RCU E-scrap Committee study issues and develop a recommendation for recycling household e-scrap. This was necessary since no laws governing household e-scrap recycling or addressing security of personal data stored in these items existed at the Utah or Federal level. Laws governing businesses e-scrap currently exist, so the requested recommendation would only apply to household items. *S.J.R. 4* requested a recommendation be presented to the Natural Resource, Agriculture, and Environment Interim Committee (Interim Committee) by October 31, 2009. In 2009 the RCU E-scrap Committee researched e-scrap issues and developed this recommendation.

## Recommendation Detail:

The RCU E-scrap Committee recommends an e-scrap recycling program, designed to provide recycling opportunities for all Utah households, be established. A Utah household includes consumers and home based businesses. The RCU E-scrap Committee believes the most effective way to provide this e-scrap recycling service would be through State legislation. Utah is in a unique position to choose the best model and best practices from e-scrap legislation already enacted in 19 States and New York City.

The *Producer Responsibility*, also known as the *Product Stewardship*<sup>2</sup> model, is recommended as the best choice for Utah. This is a shared, product-centered approach where manufacturers accept a portion of the responsibility in a product's end of life management. In this model, manufacturers may incorporate some recycling costs in the product price the same as any other business expenses. Retailers, consumers, waste managers, recyclers and local governments continue with their current responsibilities and duties to establish, provide, and manage drop off or collection programs at the local level. At the end of the product's useful life, manufacturers assist local communities with appropriate recycling costs. Since manufacturers participate in end of product life management, this model provides an incentive to consider resources, toxicity reduction, possible reuses, and recycling from design through production.

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<sup>1</sup> Sponsors: McCoy, Scott D. & Rebecca Chavez-Houck. 2009. *Recycling of Electronic Waste Joint Resolution (S.J.R. 4)*. <http://le.utah.gov/~2009/bills/sbillenr/sjr004.htm>

The RCU E-scrap Committee does not believe any single, existing legislation completely addresses all concerns specific to Utah issues. In consideration of a Utah program, the RCU E-scrap Committee drew from the best practices and procedures found in various other States' legislation with additional suggestions to bring about as much fairness as possible.

The following steps are recommended for legislation development.

August-September 2009: The RCU E-scrap Committee works with Utah's Legislative Research Council to draft sample legislation for the Natural Resources, Agriculture, and Environment Committee to consider. Both RCU and DEQ will continue to collaborate with stakeholders to develop specific details, requirements, and wording appropriate to Utah's needs. Additionally, a regional e-scrap recycling approach continues to be explored, and this includes consulting with the EPA's Region 8 Electronic Committee, the Coloradans working on a Colorado proposal, and Idahoans who expressed interest in Utah's plans.

September or October: The RCU E-scrap Committee provides a presentation including a draft of proposed legislation to the Interim Committee for their review and comments.

October-November: Proposed legislation is finalized after any remaining issues are addressed.

In January 2010, the developed legislation would be introduced in the 2010 session.

A basic outline of the recommended program for Utah is included as Addendum 2.

## **Rationale Supporting the Recommendations:**

Recommendation development included reviews of other States' existing and proposed laws, discussions and debates of Utah specific issues, attempts to evaluate and address all reasonable options, contacts with national organization representatives, discussions with product manufacturers, and attempts to incorporate concerns and views of all stakeholders.

The RCU E-scrap Committee realizes valid differences of opinions among the large group of stakeholders will always remain. However, the RCU E-scrap Committee feels differences of opinions should not preclude taking researched and well thought out action to improve the availability of e-scrap recycling in Utah. This action may serve both rural and urban areas, reduce expenses for Utah cities and counties, address personal data security issues, decrease the amount of toxic e-scrap items going to landfills, save valuable landfill space, and provide a framework to allow for proper management of e-scrap.

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<sup>2</sup> U.S. Environmental Protection Agency. September 25, 2008. *Wastes - Partnerships - Product Stewardship* <http://www.epa.gov/waste/partnerships/stewardship/basic.htm> and U.S. Environmental Protection Agency, Region 10: Pacific Northwest. July 29, 2009. *Product Stewardship* <http://yosemite.epa.gov/r10/OWCM.NSF/webpage/Product+Stewardship>

The answers provided for the following questions offer rationale behind the recommendation.

### **Why focus all this effort on e-scrap?**

Amounts of e-scrap are rapidly increasing, and this trend is expected to continue. A 2008 *Consumer Reports* study concluded nine in ten consumers own at least one computer; there were a median of three and one-half TVs per household; and eight in ten consumers owned a cell phone.<sup>3</sup> The Consumer Electronics Assoc. reported Americans own approximately 24 electronic products per household,<sup>4</sup> and most of these items have a short life span.

Discarded e-scrap is a fast growing waste stream in the U.S., and the quantity has more than doubled in the last ten years. Volumes are growing three times the rate of other wastes. In addition to items going to landfills, “approximately 235 million units had accumulated in storage as of 2007.”<sup>5</sup> This storage often occurs when people know items should not go in their garbage, but they do not know what to do with them. By 2010 over 3-billion electronics will be scrapped or an average of about 400-million units a year.<sup>6</sup> The recent conversion to a digital television signal will likely result in many more old TVs being stored or discarded.<sup>7</sup> Of e-scrap being discarded, estimates in 2007 indicate 82 percent or more of this going into landfills with only 18% currently being recycled.<sup>5</sup> Landfill space is becoming increasingly valuable to local communities, and the bulk of this e-scrap will reduce available space.<sup>8</sup>

### **How have other States addressed e-scrap recycling issues?**

Nationally, nineteen States and New York City have felt a need to enact mandatory electronics recycling laws, and these serve “slightly over half of the U.S. population.” Legislation is currently proposed or being discussed in at least ten additional States.<sup>9,10</sup> A version of *Product Stewardship* (or producer responsibility) is used in all but one State with current legislation, and it is the model proposed in the States currently working to develop legislation. Versions of the *Product Stewardship* model have been used in other countries since the early 1990s,<sup>11</sup> Electronic manufacturers are familiar with this model and are generally supportive of it.

<sup>3</sup> *Consumer Reports* – Greener Choices. March 2008. *E-waste statistics* [http://www.greenerchoices.org/electronicrecycling/el\\_ewaste.cfm](http://www.greenerchoices.org/electronicrecycling/el_ewaste.cfm)

<sup>4</sup> Consumer Electronics Association. April 2008. *Market Research Report: Trends in CE Reuse, Recycle and Removal*. Cited in: U.S. Environmental Protection Agency. *Wastes - Resource Conservation - Common Wastes & Materials – eCycling*” <http://www.epa.gov/epawaste/conservation/materials/ecycling/index.htm>

<sup>5</sup> U.S. Environmental Protection Agency. November 3, 2008. *Statistics on the Management of Used and End-of-Life Electronics*. <http://www.epa.gov/epawaste/conservation/materials/ecycling/manage.htm>

<sup>6</sup> International Association of Electronics Recyclers. 2006. *IAER ELECTRONICS RECYCLING INDUSTRY REPORT*® <http://www.iaer.org/communications/indreport.htm>

<sup>7</sup> Electronics Take Back Network. February 2009. *E-WASTE: The Exploding Global Electronic Waste Crisis - An Issue Briefing Book*. Page 1 [http://www.electronicstakeback.com/legislation/Ewaste\\_Briefing\\_Book.pdf](http://www.electronicstakeback.com/legislation/Ewaste_Briefing_Book.pdf)

<sup>8</sup> Dougherty, Joseph, M. *The Deseret News*. February 1, 2009. *Talking trash: How much life's left in the landfill?* <http://deseretnews.com/article/1,5143,705281907,00.html?pg=1>

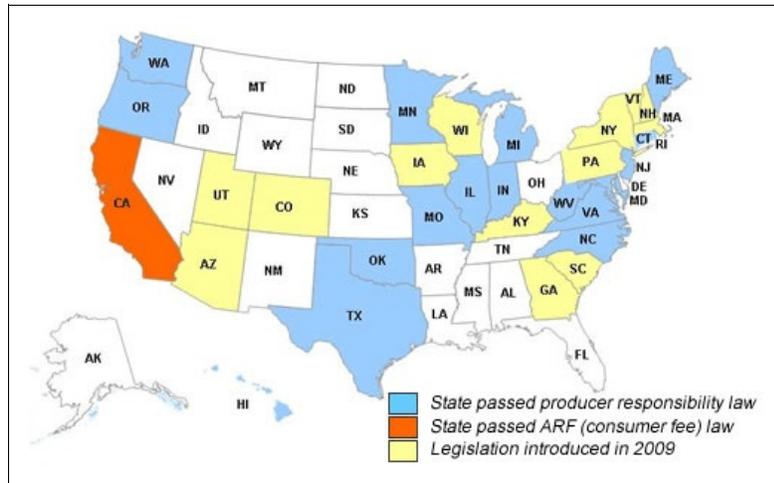
<sup>9</sup> Electronics Take Back Coalition. 2009. *State Legislation*. [http://www.electronicstakeback.com/legislation/state\\_legislation.htm](http://www.electronicstakeback.com/legislation/state_legislation.htm)

<sup>10</sup> National Center For Electronics Recycling. April 30, 2008. *Electronics Recycling Volumes Climb 7% in 2008, According to Newly Published Index*. pg. 2.

[http://www.electronicrecycling.org/public/UserDocuments/Press%20Release%20Per%20Capita%20Collection%20Index%204\\_30\\_09.pdf](http://www.electronicrecycling.org/public/UserDocuments/Press%20Release%20Per%20Capita%20Collection%20Index%204_30_09.pdf)

<sup>11</sup> Institute For Local Self-Reliance. Program Area: Waste To Wealth. Not Dated. *Extended Producer Responsibility (EPR)*. <http://www.ilsr.org/recycling/epr/index.html>

The only other model is the Advanced Recovery Fee (ARF) model used by California. The ARF model requires consumers pay a separate recycling fee of \$8-25.00 when purchasing video display devices, and this money goes to a State of California fund to cover end of life recycling costs.<sup>12</sup> California was the first State to pass e-scrap legislation, and *Producer Responsibility* became the more common standard since then.



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### Why is legislation necessary? Why can't voluntary e-scrap programs address the issue?

Some manufacturers and retailers have been proactive in offering recycling programs on their own or in conjunction with the EPA's "Plug-In To eCycling Program."<sup>13,14,15,16</sup> Participation in the EPA's "Plug-In To eCycling Program" is voluntary, and the intent of the program is only to "complement existing state or municipality-led collection and recycling efforts."<sup>13</sup> This may be a key factor in recommending an e-scrap recycling program for Utah.

Unfortunately, most voluntary programs do not service a State's entire area or handle all e-scrap generated. While beneficial, voluntary programs would be in addition to and not in place of participating in the State program.

Participation in recycling is maximized if consumers are not charged a fee for collection of the recyclable material at the end of its useful life. The RCU E-Scrap Committee recommends legislation which would give consumers convenient access to recycling programs with no recycling fees.

<sup>12</sup> California Integrated Waste Management Board. January 15, 2009. *Electronic Waste Recycling Fee*. <http://www.ciwmb.ca.gov/electronics/act2003/Retailer/Fee/>

<sup>13</sup> U.S. Environmental Protection Agency. July, 8 2009. *Wastes – Partnerships – Plug-In To eCycling*. <http://www.epa.gov/epawaste/partnerships/plugin/index.htm>.

<sup>14</sup> myGreenElectronics™ Consumer Electronics Association. 2009. *Take Back Programs*. <http://www.mygreenelectronics.org/RecycleCorpPrograms.aspx>

<sup>15</sup> ConsumerReports.org. April 2007. Electronics & computers. *Think green: recycle your old electronics*. [http://www.consumerreports.org/cro/electronics-computers/news-electronics-computers/how-to-recycle-your-tv-and-computer-206/index.htm?Extkey=SY95PI0&CMP=KNC-CROVMYSSP&HBX\\_OU=51&PK=yssp](http://www.consumerreports.org/cro/electronics-computers/news-electronics-computers/how-to-recycle-your-tv-and-computer-206/index.htm?Extkey=SY95PI0&CMP=KNC-CROVMYSSP&HBX_OU=51&PK=yssp)

<sup>16</sup> Electronics Take Back. Which Manufacturers Take Back Their Products? [http://www.electronicstakeback.com/corporate/who\\_takes\\_back.htm](http://www.electronicstakeback.com/corporate/who_takes_back.htm)

This recommendation would not prohibit privately operated, free market, voluntary or independent e-scrap recycling programs operated by recyclers, manufacturers, retailers, nonprofit groups, or others.

Proposed legislation would allow and encourage voluntary programs to help manage e-scrap volumes and complement the State's broader program.

Organizers would be responsible for all aspects of voluntary programs including choosing the e-scrap items they accept and determining any fees they may collect. Examples of voluntary programs include mail back or trade-in options, curbside pickup, hosting collection events at retail locations, partnerships with local organizations or support of local recycling events with cities and municipalities.

Manufacturers who participate in independent or parallel programs, either alone or in conjunction with other manufacturers, would be eligible to receive credit for these programs and would be able to satisfy all recycling obligations as outlined in the State program. However, manufacturers who choose to provide their own recycling program would register with the State as a certified recycler of e-scrap. This option would provide the manufacturer the ability to utilize the existing recycling infrastructure in Utah or operate their own parallel system for recycling their predetermined share of e-scrap each year.

The proposed legislation would not prohibit fees for pickup services for residents that would like to pay a business or individual to collect their e-scrap for them.

**Why should e-scrap be recycled rather than sent to landfills or incinerated?**

Many e-scrap items contain substances of concern.<sup>17</sup> If released in the environment, these substances may harm human health and the environment, and landfill managers are becoming more concerned with the volume going into landfills.

E-scrap contains valuable metals including gold, silver, platinum, palladium, rhodium, copper, tin, lead, brass and zinc that can be recovered, and the plastic and other materials may be made into new products.<sup>18</sup> Recycling e-scrap may use less energy and reduce overall pollution compared to manufacturing products from virgin materials.<sup>19</sup>

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<sup>17</sup> U.S. Environmental Protection Agency. Frequent Questions. What are the substances of concern?  
<http://www.epa.gov/epawaste/conservation/materials>

<sup>18</sup> US Geological Survey. Not dated. *Recycling of E-waste*.  
<http://pubs.usgs.gov/fs/2006/3097/fs2006-3097/>

<sup>19</sup> U.S. Environmental Protection Agency. Frequent Questions. Benefits of Reuse/Recycling.  
<http://www.epa.gov/epawaste/conservation/materials>



Figure 1 - Common Wastes & Materials – eCycling.

Figure 2 - Recoverable Metals.

Figure 3 - Common Wastes & Materials – eCycling. *How can we reuse and recycle e-waste?*

### **Why not just donate old electronic items for reuse?**

Reuse is a valid and preferred option for e-scrap, and proposed legislation would encourage this to continue. Unfortunately, the market for used electronics is restricted due to technological advances causing older items to rapidly lose value. Also, the vast numbers of “out-dated” e-scrap have already overwhelmed most second-hand stores, schools, other facilities that normally need donations, and even third-world countries.<sup>20, 21, 22</sup>

### **How did the RCU E-scrap Committee choose which electronic items would be included?**

Reviewing items included in other States’ laws were the main factors. Emphasis was placed on newer laws, and representatives of other States were contacted to see which items they would include if their laws were being rewritten today.

### **How would both rural and urban areas of Utah receive access to e-scrap recycling?**

Currently, due to funding, only a few urban areas of Utah have e-scrap drop off and recycling programs. These programs provide e-scrap collection at no cost to their residents through their solid waste districts.<sup>23</sup> There are some privately funded e-scrap collection events but these are few and far between, causing residents to store their electronics for long periods of time. Most areas of Utah do not have e-scrap recycling available, and the intent of the proposed program is to provide drop off locations and recycling availability to all Utah areas, including rural areas.

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<sup>20</sup> Pelley, Scott. Produced by Solly Granatstein. November 13, 2008. CBS News, 60 Minutes. *Following The Trail Of Toxic E-Waste - 60 Minutes Follows America's Toxic Electronic Waste As It Is Illegally Shipped To Become China's Dirty Secret.* <http://www.cbsnews.com/video/watch?id=4586903n>

<sup>21</sup> Klein, Peter. Produced by the University of British Columbia Graduate School of Journalism. FRONTLINE on PBS. June 23, 2009. *Ghana: Digital Dumping Ground.* [http://www.pbs.org/frontlineworld/stories/ghana804/video/video\\_index.html](http://www.pbs.org/frontlineworld/stories/ghana804/video/video_index.html)

<sup>22</sup> Basal Action Network. June 24, 2009. *Stop Dumping Techno-Trash on Developing Countries! Activists Urge Consumers, Manufacturers and Retailers to Use Only Ethical "e-Steward" Recyclers.* [http://www.ban.org/ban\\_news/2009/090624\\_stop\\_dumping\\_on\\_developing\\_countries.html](http://www.ban.org/ban_news/2009/090624_stop_dumping_on_developing_countries.html)

<sup>23</sup> Maffly, Brain. *Salt Lake Tribune.* 04/22/2009 *Recycling electronics: Landfill is not your only option.* [http://www.sltrib.com/ci\\_12184071?IADID=Search-www.sltrib.com-www.sltrib.com](http://www.sltrib.com/ci_12184071?IADID=Search-www.sltrib.com-www.sltrib.com)

It is recommended that incentives be established to create more opportunity for rural recycling of e-scrap. Other States like Minnesota, have implemented a higher proportional weight credit for rural e-

scrap material. So a rural pound of e-scrap is actually worth 1.5 to 2 pounds per pound collected to a manufacturer who collects from rural areas.

**What is the best way to address personal data security concerns?**

The RCU E-scrap Committee will suggest options on how to address this issue. Texas is one State that has left that up to the consumer. Proposed legislation could require certified recyclers follow a statewide standard and could define who is responsible for data deletion and destruction of computer hard-drives.

**What does the public in Utah think about e-scrap recycling?**

A statewide telephone survey, conducted in 2008 by Dan Jones & Associates, revealed a high degree of support for general recycling. When urban and rural areas were combined, 87 percent of respondents said recycling was either important or very important. When asked how their community is doing as far as recycling 64 percent of urban and 74 percent of rural respondents wanted more availability (less than two percent wanted less).<sup>24</sup>

**Impacts of Recommendation  
Including Estimated Costs and Personnel Requirements:**

The RCU E-scrap Committee expects the recommended e-scrap recycling program would have an overall positive impact for Utah in general and for most individual stakeholders, but aspects of the program may be viewed as having a negative impact to some stakeholders. Some positive and negative impacts the identified stakeholders may experience are noted below.

**State of Utah Government including DEQ:**

Positive – Benefits include providing citizens a statewide e-scrap recycling program thus keeping these items out of landfills, reducing illegal disposals, and decreasing the potential environmental damage and management of cleanups. Program administration costs for DEQ including employee compensation, registration reviews, updating information, and general oversight would be covered by registration fees deposited in a DEQ restricted account.

Negative – Staff time for rule making may occur prior to initial registration fees being submitted.

**County and Municipality Governments, Local Health Departments, Solid Waste Districts and Landfill Operators:**

Positive – Benefits include having an e-scrap recycling program in their area to provide a desired service for constituents, and life of landfills would be extended.<sup>25</sup> Future management and expenses of e-scrap recycling, illegal disposals, potential environmental damage, and possible cleanups would all be reduced. The few areas already paying for e-scrap recycling would see an immediate reduction in expenses.

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<sup>24</sup> Dan Jones & Associates. 2008. *Recycling Survey of Utah Residents 2008*. pg. 7, 8.  
[http://www.hazardouswaste.utah.gov/recycling\\_survey\\_2008.pdf](http://www.hazardouswaste.utah.gov/recycling_survey_2008.pdf)

<sup>25</sup> Dougherty, Joseph M. *The Deseret News*. February 1, 2009. Talking trash: How much life's left in the landfill? .  
<http://deseretnews.com/article/1,5143,705281907,00.html?pg=1>

In most situations, existing staff would be able to handle requirements, so no additional personnel needs are estimated for program operation.

Negative – Staff time would be required to coordinate establishment of collection points in their area, and this may take a few hours or significantly longer. There may be some costs associated with preparing a site (ex. pouring a cement pad so a container for e-scrap may be placed on it), but it is estimated costs would be minimal because collection points would often be at landfills or other areas already capable of accommodating e-scrap collections. Some additional staff time for on-site and ongoing program operation and administration would be required, but most of this would be incorporated into staff's current work duties. There may be a potential reduction in tipping fee collections because e-scrap items would be removed from the waste stream.

**Citizens:**

Positive – Benefits include improved availability to e-scrap recycling and extended landfill life. Residents in rural and urban areas of Utah will have an equal opportunity to recycle their e-scrap.

Negative – Potential minor increases in new electronics retail pricing may occur. The RCU E-scrap Committee received information that some manufacturers use a national pricing structure rather than setting prices on a state-by-state basis. National pricing may include some recycling costs in other states, so there may not be any changes to pricing in Utah.

**Manufacturers:**

Positive – Benefits of the recommended program include having statewide recycling available so they are not entirely responsible for collection and recycling of their products. Manufacturers would be allowed to offer their own programs, in addition to being part of the State program.

Negative – Manufacturers would have to register annually with DEQ and pay a fee, and they would be responsible to cover a large portion of the costs for recycling electronic materials. This would require staff time, and this may necessitate additional staff in some cases. Registration fees in other States range from \$0.00 to over \$20,000 annually depending on the State.<sup>26</sup>

**Retailers:**

Positive – This recommendation is not expected to have significant positive impact to retailers.

Negative – Retailers would need to verify the manufacturers of the covered electronic devices they sell are registered in Utah. This would require some staff time, but a list of registered manufacturers would be available on a DEQ web site, so it is not expected to be a significant burden for retailers. No significant costs are expected, and no additional personnel are expected to be needed to complete these tasks.

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<sup>26</sup> National Electronics Recycling Infrastructure Clearinghouse. February 5, 2009. *State E-Waste Registration Fees to Date*. <http://www.ecyclingresource.org/ContentPage.aspx?Pageid=36&ParentID=0>

**Recyclers of E-scrap and Scrap Material Dealers:**

Positive – There would be an increase in business for recyclers, and additional, locally available scrap materials would be available for scrap dealers. Since the recommendation only deals with household

e-scrap, the estimated impacts would not be significant. Impact may be most significant during the first few years after the program began due to stored e-scrap being recycled, but the impact may be less noticeable after this. Recyclers may need to hire a few employees to handle additional e-scrap volumes, transportation, and billings, but the costs for this would be covered by invoicing the CED manufacturers.

Negative –Recyclers would need to register with DEQ to be included as authorized recyclers for the State program, and this may require some adjustments in procedures and additional expenses to confirm appropriate management practices. Recyclers may need to expand services, and this may include hiring a few additional employees, increasing transportation vehicles, and other associated business.

**Other:**

Positive – Because people would have a location to recycle e-scrap, thrift stores (ex. Deseret Industries) receiving used electronics are expected to receive fewer unsalvageable items. This is expected to reduce current disposal expenses and possibly some staff time. The Bureau of Land Management, other land managers, and private land owners are expected to see a decrease in e-scrap being illegally dumped on open lands.<sup>27</sup> This would reduce time and costs for clean up.

Negative – Thrift stores may receive less usable items due to people recycling them rather than donating them, but donation would remain a preferred option. This would need to be stressed in education and outreach during recycling program implementation and operation. Deseret Industries is no longer accepting monitors from computers due to high disposal costs.

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<sup>27</sup> Fahys, [Judy](#). *The Salt Lake Tribune*. June 26, 2009. *Ugly e-waste piling up in Utah Environment » Discarded electronic gear a growing problem*. [http://www.sltrib.com/news/ci\\_12698910](http://www.sltrib.com/news/ci_12698910)

**ADDENDUM 1 - RCU E-scrap Committee Participants**

<b>Representing</b>	<b>Organization</b>	<b>Name</b>
E-scrap Recycler	Metech	Eric Anderson
E-scrap Recycler	Tamsolutions	Brad Morley
E-scrap Recycler	Tamsolutions	Jason Dye
E-scrap/ Metal Recycler	Utah Metal Works	Chris Lewon
E-scrap/ Metal Recycler	Utah Metal Works	Don Lewon
Federal Government	EPA Region 8	Kim Bartels
Local Gov't/ Landfill	North Pointe Solid Waste	Rodger Harper
Higher Education	Utah State University	Eric Jorgensen
Landfill (SWANA)	Trans-Jordan Landfill	Esther Davis
Landfill	Trans-Jordan Landfill	James Beardall
Local Government	Provo City	Scott Pepler
Local Government	Salt Lake City	Bridget Stuchly
Local Government	Salt Lake City	Debbie Lyons
Local Government	Salt Lake Valley Health Dept.	Dorothy Adams
Local Gov't/ Rural	Washington County SW	Jenifer Harris
Manufacturer/ Broker	Direct Pointe/ HP	Lawton Smith
Manufacturer	IM Flash	Carl Farley
Manufacturer	MRM	David Thompson
Manufacturer	Sony Corporation	Douglas Smith
Manufacturer Industry Representative	Information Technology Industry Council	Valerie Rickman
Metal Recycler	SIMS Metal Management	Steve Allen
Non-profit	Deseret Industries	Troy Casper
Non-profit	National Electronics Recycling	Jason Linnell
Non-profit	Recycling Coalition of UT	Brad Mertz
Retailer (Electronics)	RC Willey	Karl Anderson
Retailer (Electronics)	Wholesale Works	Matt Anderson
State Government	DEQ	Ed Deputy
State Government	DEQ	Sam Schroyer
State Government	Utah Legislature	Rep. Cosgrove
State Government	Utah Legislature	Senator McCoy
Utah Recycling Business	Waste Management	Susan Hayward

## **ADDENDUM 2 – Outline of how the recommended e-scrap recycling program may look**

The recommended State coordinated program would follow this basic outline.

- a) The following household (personal use - not home business) items, referred to as “covered electronic devices” (CEDs), are recommended for inclusion in a State coordinated program.

computers (CPUs) and laptops

computer associated peripherals (mouse, keyboard, any desktop device that prints, scans, copies, or faxes

computer monitors and televisions (all types)

- b) Consumers would purchase CEDs as they do today. When a CED is no longer of use, the product would be taken to a collection point for recycling, and normally, no additional fee would be charged to household consumers. Personal data security management would be addressed as part of the process, so the possibility of identification theft and recovery of other personal information would be reduced. A registered e-scrap recycler would transport items from this point for disassembly and recycling. Recyclers would bill CED manufacturers for their share of the recycling costs.
- c) DEQ would be the lead agency for program administration.
- d) CED Manufacturers selling in Utah would need to register with DEQ. Manufacturers would accept responsibility for reasonable recycling costs for their CEDs collected in the State program.
- e) “Orphan” CED’s (when manufacturer cannot be determined or is no longer doing business in Utah) is still being researched in an attempt to develop an appropriate recommendation for Utah that is as equitable as possible to all involved. A variety of approaches are currently being evaluated.
- f) Retailers would agree to only sell CEDs from registered manufacturers.
- g) A local authority such as the local health department or county government would be responsible for establishing e-scrap collection points within their jurisdiction.
- h) E-scrap recyclers would register with DEQ to verify they meet personal data security, environmental, and handling requirements and have appropriate insurance coverage.

Proposed legislation would not require banning e-scrap from going to landfills. However, 11 States currently ban e-scrap from their landfills.<sup>28</sup> If the Legislature wishes to include a landfill ban in the legislation, the RCU E-scrap Committee recommends the ban not be instated until the recycling program had been operating effectively for at least three years.

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<sup>28</sup> Electronics Take Back. November 12, 2008. *States Where You Can't Throw E-Waste Into the Trash* .

[http://www.electronicstakeback.com/legislation/States\\_with\\_Disposal\\_Ban\\_laws.pdf](http://www.electronicstakeback.com/legislation/States_with_Disposal_Ban_laws.pdf)

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