MARK MILLER
WISCONSIN STATE SENATOR
P.O. Box 7882 Madison, WI 53707-7882

January 24, 2008

TO: Members of the Senate Committee on Environment and Natural Resources
FR: Senator Mark Miller
RE: Testimony in Support of Senate Bill 397, Electronics Recycling Legislation

Good morning, Committee Members:

Discarded electronic devices is the fastest growing segment of our waste stream.

Electronic devices contain both valuable materials such as silver and gold and highly toxic materials such as lead, mercury, and cadmium.

Over 24,000 tons of discarded televisions enter Wisconsin's landfills annually, along with over 10,000 tons of computer monitors and 3,000 tons of computer equipment.

Electronic devices are being introduced at an ever increasing rate. The pace of technology advancement makes electronic devices obsolete long before the end of their useful life.

Only 11% of discarded electronic devices are recycled. The rest enter landfills or is shipped overseas. Only a small amount is refurbished for reuse.

Senate Bill 397 requires manufacturers of household video display devices sold in Wisconsin to assume responsibility for recycling a portion of discarded electronic equipment. Each manufacturer's share is based on Wisconsin market share.

Businesses already recycle their computers. This bill adds household electronic devices.

The bill is modeled after similar legislation adopted last year in Minnesota. People familiar with the Minnesota law will be testifying later.

Similar legislation has been introduced or will be introduced in each state that borders Wisconsin.

Europe and Japan already require electronics manufacturers to assume responsibility for recycling. Most major electronics manufacturers have redesigned their products to meet these standards to facilitate efficient recycling.

This bill is considerably less bureaucratic than other recycling programs because it allows the market to respond to the requirement rather than dictating how the recycling will be accomplished.

The main features of the bill are:

Covered electronic devices are banned from landfills.

Retailers report annual sales to the manufacturers.

All manufacturers of video display devices sold in Wisconsin must report the weight of their annual total sales and pay an annual fee of $2,500. Initial registration costs an additional $2,500.

A formula determines the amount of recycling that the manufacturer must in the subsequent program year. Manufacturers submit quarterly reports on the amount of recycling accomplished. Manufacturers who fail to meet their recycling requirement are subject to a variable recycling fee depending on how closely they met their requirement.

Collectors of discarded electronic devices must register with the DNR, make quarterly reports and agree to meet certain standards.

Recyclers of discarded electronic devices must register with the DNR, make quarterly reports, and agree to certain performance standards.

The DNR will maintain a website listing the registered collectors and recyclers and any certifications. The website will also list the video display manufacturers who have registered. Retailers may not sell the video display devices of manufacturers who have not registered.

If a manufacturer exceeds his annual requirement, the excess can be banked against future requirements or sold to another manufacturer.

The DNR is authorized to conduct or contract for performance audits of recyclers and collectors.

I have been meeting with many of the stakeholders interested in this legislation, many of whom are here today. Two weeks ago, I met with 50 of the stakeholders to review proposed changes.

As a result of these meetings, I will be introducing a substitute that differs from the bill before you. The sub will:

- Clarify reporting requirements for manufacturers, collectors and retailers and quarterly recycling targets for manufacturers.
- Strengthen waste ban language to make certain individuals are prohibited from disposing covered electronic devices in the waste stream and provide recourse for landfill operators who find incidentally CEDs in the landfill.
- Require the DNR to establish Best Management Practices for recyclers and collectors for certification.
- Provide the DNR through rule-making the authority to add additional responsible manufacturers that would be required to register with the state and recycle CEDs based on their market share.
- Protect the funds collected from the manufacturers through the registration fees and variable fees.
- Tighten definitions of 'Recycling', 'Manufacturer', 'Sell' and 'Video Display Device'.

With the addition of these changes, Rep. Jeff Stone agreed to take the lead on SB 397 and intends to introduce a companion bill in the Assembly with these changes.

This is a bipartisan effort to address an increasingly serious problem. You will hear from a variety of stakeholders and experts in the field with compelling arguments in support of SB 397.
I appreciate your interest in Senate Bill 397. I ask for your support to advance this vitally important legislation.

MARK MILLER
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P.O. Box 7882 Madison, WI 53707-7882

Senate Bill 397
Electronics Recycling Program
Substitute Amendment Provisions

- Require manufacturers to report sales data annually, rather than quarterly. (Retain quarterly reporting for recycling accomplished.)

- Establish quarterly minimum (at least 15%) recycling targets and apply a quarterly variable fee if the manufacturer fails to meet the target for the specified quarter. No penalty for meeting recycling targets early. Fees are reconciled and paid at end of each program year.

- Authorize the DNR to develop a reciprocity agreement with other states that have similar recycling programs (such as Minnesota) with regard to trading/selling recycling credits. Make this clear under Lines 16-17 on page 22.

- Require DNR to establish best management practices for recyclers and collectors. (a 6th point of (d) Certification on page 19. Prior to that, DNR will maintain an online database highlighting industry certifications held by each registered recycler.

- Eliminate optional annual reporting of recycling activity. All recycling and collection reporting will only be done quarterly.

- Require retailers to annually report to manufacturers the number of the manufacturer's VDD sold two years prior to the current program year. Year one and two figures can be determined by either prorating national figures for Wisconsin or actual Wisconsin sales figures from two years prior to the first year.

- Add language to waste ban: No person may: c)Beginning on [date], dispose of in a solid waste disposal facility or burn in a solid waste treatment facility in this state, or place in a container destined for disposal in a solid waste disposal facility or for burning in a solid waste treatment facility in this state, any of the following electronic devices: (list CEDs)

The operator of a solid waste disposal or treatment facility shall make a reasonable effort to manually segregate and arrange for recycling any material listed under para. (c)8 that is readily observed in a waste stream destined for disposal or burning, provided that the operator determines that:

  - retrieval of the material is practical and will not require extraordinary measures to protect human health and safety.
  - the material has not been damaged in such a way that recycling is no longer feasible or practical.

- Under "Review of formula" on Page 21, add language to allow the DNR to add additional manufacturers that would be required to register with the state and recycle CEDs based on their market share.

- Create a separate Electronics Recycling fund for the manufacturer fees and the variable fees

- Clarify the definition of 'Recycling' to avoid double counting.

- Add to the definition of Manufacturer, pg. 7 line 10, add after the word 'others': ",unless another person assumes the responsibility of collection and recycling or arranges for the collection and recycling of such licensed video display devices."

- Add to the definition of the Sell: page 8, line 4, after the word 'consideration' add, "by a household."

- Add to the definition of Video Display Device: does not include:

"3. A television or computer monitor that is functionally or physically a part of, connected to or integrated within a larger piece of equipment designed and intended for use in an industrial, governmental, commercial, research and development, or medical setting (including diagnostic, monitoring, or other medical products as that term is defined under the Federal Food, Drug and Cosmetic Act) or equipment used for security, sensing, monitoring or anti-terrorism purposes."

- Allow incidental Covered Electronic Devices that are recovered from a landfill to be eligible for recycling credits.

- Delete Lines 1 through 6 on Page 4 relating to the prohibiting state agencies from purchasing VDDs from non-registered manufacturers.

Businesses

Implications of Wisconsin's Proposed Electronics Recycling Bill

For more information
Contact Senator Mark Miller

Sen.Miller@legis.wisconsin.gov
(608) 266-9170

Wisconsin's proposed electronics recycling bill establishes a collection and recycling system in Wisconsin for certain electronic devices discarded by households and bans landfilling or incineration of these devices.

Manufacturers, collectors, retailers and recyclers are regulated under the bill and must register with the Wisconsin Department of Natural Resources.

While business generated e-waste is not regulated under this bill, businesses will experience direct effects of the bill. Business generated electronic waste is regulated under Wisconsin hazardous waste management requirements.

Implications for Businesses

The bill does not impose any additional regulatory requirements for electronic disposal from Wisconsin businesses.

- This bill will create competitive costs and increase availability of responsible computer recycling for businesses due to the heightened infrastructure throughout the state.
- This bill would reduce local government expenditures for e-waste collection and recycling, which currently are partially funded by the business recycling surcharge.
- Similar bills have passed in other states with overwhelming bi-partisan and business support (Target Company, 3M, Best Buy), who see this as an economically efficient and environmentally responsible approach to managing this particular waste stream.

E-waste Legislation Stakeholders Meeting

When: Wednesday, January 9, 2008, 1:30 PM

Where: Room 411 South – State Capitol

Why: To review and discuss bill draft (LRB 3058/2)

Responsibilities of Regulated Groups

- ***Manufacturers***: Any manufacturer that sells certain electronic devices in Wisconsin is required to register under the Wisconsin program and satisfy program requirements.
- ***Retailers***: May only sell devices of registered manufacturers. Retailers must report to manufacturers on the volume of sales of these devices to Wisconsin households.
- ***Recyclers and haulers***: Those entities part of a collection or recycling program must register with the state and conform to program operational requirements.
- ***Consumers***: Will be able to recycle their electronic devices at convenient locations.
- ***Local Government:*** They may offer collection opportunities and are not prohibited from issuing end-of-life fees for collected materials.

General Information

Manufacturers must collect and recycle regulated equipment, referred to as video display devices (VDDs), from households in Wisconsin. The bill establishes recycling targets for manufacturers based on their sale of VDDs in prior years in Wisconsin.

During the first year, manufacturers must recycle 60 percent of the total weight of their VDD sales for the relevant year period.

Beginning the second year, manufacturers must recycle 80 percent of the total weight of their VDD sales for the relevant year period.

What is a Video Display Device?

A video display device (VDD) is a television or a computer monitor with a tube or screen that is at least nine inches in the longest diagonal dimension.

Covered Electronic Devices

Although a manufacturer's recycling obligation is based on the total weight of video display devices sold to households in Wisconsin, there is a range of "covered electronic devices" that qualify toward meeting the recycling goal including printers, computers, peripherals, facsimile machines, DVD players, video cassette recorders, as well as video display devices.

If a manufacturer exceeds its target recycling weight, it receives credits, which it may use to meet its target recycling weight in any of the next three years or sell to other manufacturers for that purpose.

Rural and Urban County Definitions

As an incentive to increase collection in traditionally underserved parts of Wisconsin, there is an additional credit for covered electronic devices collected from households in rural counties - counties of population densities below 139 individuals per square mile. Recyclers, collectors, and manufacturers can multiply the actual weight collected by 1.5.

For purposes of this bill, "urban counties" include Brown, Calumet, Dane, Eau Claire, Fond du Lac, Jefferson, Kenosha, Manitowoc, Milwaukee, Outagamie, Ozaukee, Racine, Rock, Sheboygan, Walworth, Washington, Waukesha, and Winnebago counties.

While the bill does not prevent or encourage consumer recycling fees, one goal is to reduce or eliminate end-of-life fees to encourage household recycling.

Manufacturers

Implications of Wisconsin's Proposed Electronics Recycling Bill

For more information
Contact Senator Mark Miller

Sen.Miller@legis.wisconsin.gov
(608) 266-9170

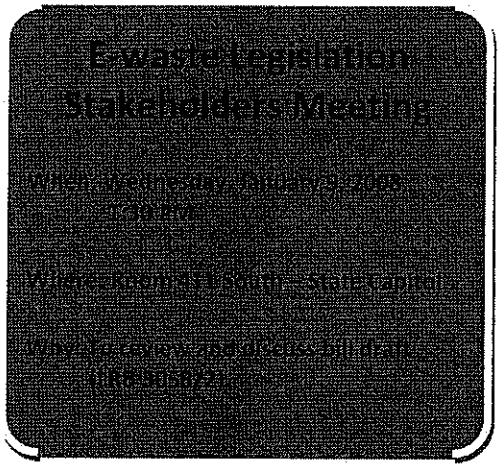
Manufacturers of video display devices sold to Wisconsin households are regulated under a proposed electronics recycling bill.

The bill specifically addresses video display devices sold to Wisconsin households. It does not address business-to-business or institutional sales.

Under the bill, a business is considered a manufacturer of video display devices if it makes products for sale under its own brand, or has others make products under its brand. A business that makes components is not regulated under this program.

Implications for Manufacturers

- Manufacturers must register with the Department of Natural Resources (DNR)
- Manufacturers must
  - Annually complete and submit a registration form.
  - Identify brands of video display devices made by the manufacturer offered for sale in Wisconsin.
  - Pay a registration fee.
- All products sold or offered for sale in Wisconsin must bear a manufacturer's label that is permanently affixed and prominent.
- Manufacturers that do not register cannot sell, or offer for sale, video display devices to households in Wisconsin after the registration deadline.
- New manufacturers wanting to sell to households in Wisconsin must register within ten days of offering them for sale.



Responsibilities of Regulated Groups

- ***Manufacturers***: Any manufacturer that sells certain electronic devices in Wisconsin is required to register under the Wisconsin program and satisfy program requirements.
- ***Retailers***: May only sell devices of registered manufacturers. Retailers must report to manufacturers on the volume of sales of these devices to Wisconsin households.
- ***Recyclers and haulers***: Those entities part of a collection or recycling program must register with the state and conform to program operational requirements.
- ***Consumers***: Will be able to recycle their electronic devices at convenient locations.
- ***Local Government:*** Aid in the promotion of any established programs. They may offer collection opportunities and are not prohibited from issuing end-of-life fees for collected materials.

General Information

Manufacturers must collect and recycle regulated equipment, referred to as video display devices (VDDs), from households in Wisconsin. The bill establishes recycling targets for manufacturers based on their sale of VDDs in prior years in Wisconsin.

During the first year, manufacturers must recycle 60 percent of the total weight of their VDD sales for the relevant year period.

Beginning the second year, manufacturers must recycle 80 percent of the total weight of their VDD sales for the relevant year period.

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Covered Electronic Devices

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If a manufacturer exceeds its target recycling weight, it receives credits, which it may use to meet its target recycling weight in any of the next three years or sell to other manufacturers for that purpose.

Rural and Urban County Definitions

As an incentive to increase collection in traditionally underserved parts of Wisconsin, there is an additional credit for covered electronic devices collected from households in rural counties - counties of population densities below 139 individuals per square mile. Recyclers, collectors, and manufacturers can multiply the actual weight collected by 1.5.

For purposes of this bill, "urban counties" include Brown, Calumet, Dane, Eau Claire, Fond du Lac, Jefferson, Kenosha, Manitowoc, Milwaukee, Outagamie, Ozaukee, Racine, Rock, Sheboygan, Walworth, Washington, Waukesha, and Winnebago counties.

While the bill does not prevent or encourage consumer recycling fees, one goal is to reduce or eliminate end-of-life fees to encourage household recycling.

Retailers

Implications of Wisconsin's Proposed Electronics Recycling Bill

For more information
Contact Senator Mark Miller

Sen.Miller@legis.wisconsin.gov
(608) 266-9170

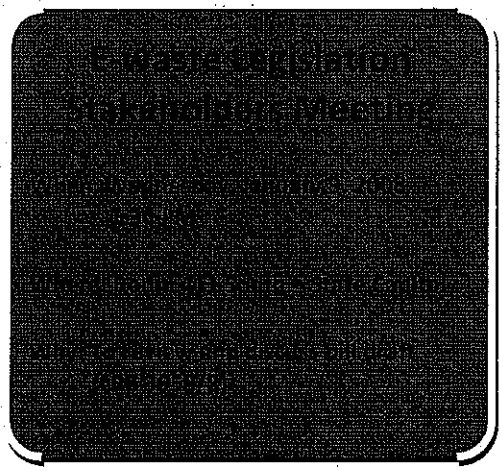
Wisconsin's proposed electronics recycling law establishes new requirements for retailers of new video display devices sold to Wisconsin households. Manufacturers, collectors, and recyclers are also regulated under the law and must register with the Department of Natural Resources (DNR).

Under the bill, a retailer sells, rents or leases new video display devices to households in Wisconsin through sales outlets, catalogs or the Internet.

Some retailers may offer additional services to their customers, such as recycling/take-back of electronics. In these cases, retailers must register with the DNR as a "collector," and follow the obligations of collectors under the law.

Implications for Retailers

- There is no registration requirement for retailers.
- Retailers cannot sell a video display device to a Wisconsin household unless the manufacturer of that device is registered with the DNR. (Following the manufacturers' registration deadline, an official list of registered manufacturers and brands will be posted on the DNR web site.)
- Retailers are required to report to manufacturers the number of video display devices, by model, sold to consumers in Wisconsin.
- Provide information to households describing where and how they may recycle VDD, including opportunities and locations for convenient collection for recycling.



Responsibilities of Regulated Groups

- ***Manufacturers***: Any manufacturer that sells certain electronic devices in Wisconsin is required to register under the Wisconsin program and satisfy program requirements.
- ***Retailers***: May only sell devices of registered manufacturers. Retailers must report to manufacturers on the volume of sales of these devices to Wisconsin households.
- ***Recyclers and haulers***: Those entities part of a collection or recycling program must register with the state and conform to program operational requirements.
- ***Consumers***: Will be able to recycle their electronic devices at convenient locations.
- ***Local Government:*** They may offer collection opportunities and are not prohibited from issuing end-of-life fees for collected materials.

General Information

Manufacturers must collect and recycle regulated equipment, referred to as video display devices (VDDs), from households in Wisconsin. The bill establishes recycling targets for manufacturers based on their sale of VDDs in prior years in Wisconsin.

During the first year, manufacturers must recycle 60 percent of the total weight of their VDD sales for the relevant year period.

Beginning the second year, manufacturers must recycle 80 percent of the total weight of their VDD sales for the relevant year period.

What is a Video Display Device?

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Covered Electronic Devices

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If a manufacturer exceeds its target recycling weight, it receives credits, which it may use to meet its target recycling weight in any of the next three years or sell to other manufacturers for that purpose.

Rural and Urban County Definitions

As an incentive to increase collection in traditionally underserved parts of Wisconsin, there is an additional credit for covered electronic devices collected from households in rural counties - counties of population densities below 139 individuals per square mile. Recyclers, collectors, and manufacturers can multiply the actual weight collected by 1.5.

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While the bill does not prevent or encourage consumer recycling fees, one goal is to reduce or eliminate end-of-life fees to encourage household recycling.

Recyclers

Implications of Wisconsin's Proposed Electronics Recycling Bill

For more information
Contact Senator Mark Miller

Sen.Miller@legis.wisconsin.gov
(608) 266-9170

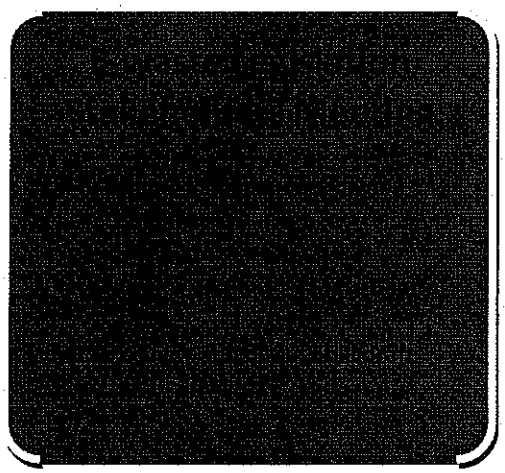
Recyclers of video display devices sold to Wisconsin households are regulated under the proposed electronics recycling law. Manufacturers, collectors and retailers are also regulated.

The law specifically addresses video display devices sold to Wisconsin households. It does not address business-to-business or institutional sales.

The bill places responsibilities on recyclers, those who accept discarded electronic devices from households or from those who collect used electronic devices from households in Wisconsin. Recyclers dismantle the devices for further processing or process the devices into raw materials for use in new products. Collectors are those involved in collecting used video display devices generated by households in Wisconsin.

Implications for Recyclers

- Recyclers must register with the Department of Natural Resources (DNR) and annually complete and submit a registration form, provide a list of all recycling facilities, certify they will comply with the law.
- Recyclers must quarterly report the weight of covered electronic devices received from collectors.
- Recyclers much certify they comply with all applicable health, environmental, safety and financial responsibility regulations; does not use prison labor in recycling video display devices; and financial responsibility requirements.



Responsibilities of Regulated Groups

- ***Manufacturers***: Any manufacturer that sells certain electronic devices in Wisconsin is required to register under the Wisconsin program and satisfy program requirements.
- ***Retailers***: May only sell devices of registered manufacturers. Retailers must report to manufacturers on the volume of sales of these devices to Wisconsin households.
- ***Recyclers and haulers***: Those entities part of a collection or recycling program must register with the state and conform to program operational requirements.
- ***Consumers***: Will be able to recycle their electronic devices at convenient locations.
- ***Local Government:*** They may offer collection opportunities and are not prohibited from issuing end-of-life fees for collected materials.

General Information

Manufacturers must collect and recycle regulated equipment, referred to as video display devices (VDDs), from households in Wisconsin. The bill establishes recycling targets for manufacturers based on their sale of VDDs in prior years in Wisconsin.

During the first year, manufacturers must recycle 60 percent of the total weight of their VDD sales for the relevant year period.

Beginning the second year, manufacturers must recycle 80 percent of the total weight of their VDD sales for the relevant year period.

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Covered Electronic Devices

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If a manufacturer exceeds its target recycling weight, it receives credits, which it may use to meet its target recycling weight in any of the next three years or sell to other manufacturers for that purpose.

Rural and Urban County Definitions

As an incentive to increase collection in traditionally underserved parts of Wisconsin, there is an additional credit for covered electronic devices collected from households in rural counties - counties of population densities below 139 individuals per square mile. Recyclers, collectors, and manufacturers can multiply the actual weight collected by 1.5.

For purposes of this bill, "urban counties" include Brown, Calumet, Dane, Eau Claire, Fond du Lac, Jefferson, Kenosha, Manitowoc, Milwaukee, Outagamie, Ozaukee, Racine, Rock, Sheboygan, Walworth, Washington, Waukesha, and Winnebago counties.

While the bill does not prevent or encourage consumer recycling fees, one goal is to reduce or eliminate end-of-life fees to encourage household recycling.

Collectors

Implications of Wisconsin's Proposed Electronics Recycling Bill

For more information
Contact Senator Mark Miller

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Collectors of video display devices sold to Wisconsin households are regulated under the proposed electronics recycling bill. Manufacturers, recyclers and retailers are also regulated. The bill specifically addresses video display devices sold to Wisconsin households. It does not address business-to-business or institutional sales.

Regulated video display devices (VDDs) include televisions, laptop computers, computer monitors; displays must be larger than nine inches, measured diagonally. The law places responsibilities on collectors — those involved in collecting used video display devices generated by households in Wisconsin.

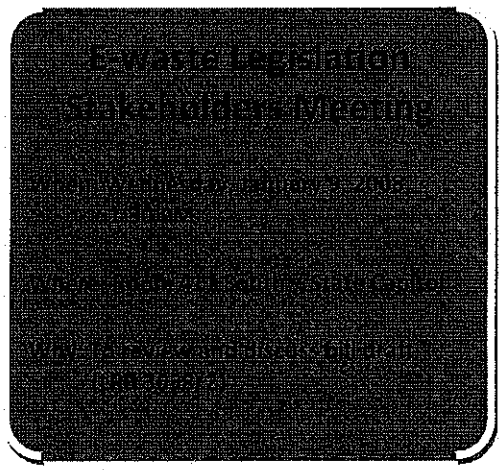
Those who dismantle the devices for further processing or process the devices into raw materials for use in new products are considered "recyclers" and subject to different requirements than collectors.

Implications for Collectors

Collectors of video display devices sold to consumers in Wisconsin, must register with the Wisconsin Department of Natural Resources.

Collectors must:

- Annually complete and submit a registration form.
- Provide a list of main collection locations.
- Certify they will comply with the law.
- Report the total weight of covered electronic devices collected and the names of partner recyclers.



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Local Government

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Manufacturers, collectors, retailers and recyclers are regulated under the bill and must register with the Wisconsin Department of Natural Resources.

While local governments are not regulated under this bill, they will experience direct effects of the bill.

Implications for Local Government

The bill does not impose any additional regulatory requirements for local governments.

- This bill will create competitive costs and increase availability of responsible computer recycling for local governments due to the heightened infrastructure throughout the state.
- Local Governments may offer or continue to offer collection opportunities and should expect expansion of collection options.
- End of life fees are not prohibited.
- System may result in competitive contracts/grants for rural communities due to weight incentive.

E-waste Legislation Stakeholders Meeting

When: Wednesday, January 9, 2008
1:30 PM

Where: Room 411 South – State Capitol

Why: To review and discuss bill draft (LRB 3058/2)

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While the bill does not prevent or encourage consumer recycling fees, one goal is to reduce or eliminate end-of-life fees to encourage household recycling.

Testimony in support of Wisconsin's Electronic Recycling Bill: Senate Bill 397
By Neil Peters-Michaud, CEO and Founder
Cascade Asset Management, LLC
January 24, 2008

Senator Miller, thank you for this opportunity to speak to this committee in support of electronics recycling. By enacting this legislation, Wisconsin will accelerate the safe and sustainable recycling of electronic equipment to help protect our environment and generate recoverable resources. It will also directly reduce taxpayer subsidies of electronics disposal and create lasting, valuable service and manufacturing jobs in the state.

As the owner of Cascade Asset Management, an electronic equipment reuse and recycling company in Madison, I have a keen interest in any legislation related to electronics recycling. Cascade has collected and processed for reuse or remarketing more than 37 million pounds of old electronics since 1999. We are a part of a growing number of responsible processors converting computer cast-offs into valuable resources.

Unfortunately, relatively few people and institutions seek out legitimate recovery operations because of the lack of access to collection programs, the relatively high cost of recycling, and the absence of a landfill ban pertaining to household electronics. The US EPA estimates that in 2005, of the approximately 2 million tons of unwanted electronics generated each year, only about 350,000 tons (or 17.5%) is recycled. The rest are either landfilled, passed onto others, or stored in basements and closets to be dealt with another day.

This bill helps to address this deficiency in our electronics recycling infrastructure by creating a sustainable financing mechanism to pay for the collection and responsible processing of unwanted electronic equipment. It does this by shifting the burden of infrastructure development from the taxpayer, the current source of financing in the absence of better alternatives, to the manufacturers and their consumers – the people who directly benefit from the use of this technology.

This legislation also promotes sustainable economic development in Wisconsin. The Institute on Local Self Reliance indicated that recycling operations promote ten times more jobs than if items were landfilled or incinerated. But this is even more the case in the electronics recycling industry. This same organization indicated that computer reuse activities generate 296 jobs for every 10,000 tons of equipment processed per year, compared to only 1 job required to landfill the same amount of waste.

No where do I see these data more true to life than in my own business. Eight years ago, the three founders of Cascade were responsible for all aspects of our operation. Now, Cascade Asset Management employs over 80 individuals to collect and process approximately 10 million pounds of equipment each year. In addition, we generate more than 150,000 pounds of clean cathode ray tubes each month to be processed by a Wisconsin recycler, who in turns employs numerous individuals to manage our material. Scrap metal is shredded and sorted by a Wisconsin auto shredder and broker and then sold on global markets. Plastic has been sent to an Oshkosh extruder who can manufacture value added, co-injection molded consumer products for a Wisconsin based firm that sells these products globally. Reusable printer components are sold to one of several Madison printer refurbishers who rebuild housings and install new fusers for thousands of customers around the world. Cascade itself sends 80% of its usable computer equipment to overseas markets where demand for low cost, but reliable technological equipment is strong.

In addition, all of these businesses purchase services and equipment from other Wisconsin firms and generate millions of dollars of tax revenue for the state. The web of job creation throughout Wisconsin from the relatively small amount of computer equipment passing through Cascade's doors is impressive.

Senate Bill 397 will help to accelerate this economic growth by favoring responsible, local processing over sham recycling from overseas brokers. It will stimulate job growth

in the transportation, recycling, and manufacturing sectors. It will allow us to harvest raw materials from within our state to create new products marketed around the world.

We know responsible recycling can work. A basic infrastructure for electronics recovery has been developed to support the business community in Wisconsin, which is already restricted from disposing of e-waste in landfills. A computer monitor from a home contains just as many toxic elements and valuable resources as one from Harley-Davidson. By including household electronics in a landfill ban, we will vastly expand the amount of electronics entering recovery markets, and can do so at a reduced taxpayer expense. In turn, the electronics recycling industry will continue to innovate and create efficiencies to drive down costs for all involved, both businesses and individuals.

In summary, this legislation will provide true environmental benefit, a growth in clean technology jobs, reduced taxpayer subsidies, and a stronger manufacturing sector. I encourage you to pass this bill, so we can get to work for you.

For more information on Cascade's role in responsible electronics recycling, and our position on this bill, please contact either:

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Wisconsin Manufacturers' Association • 1911
Wisconsin Council of Safety • 1923
Wisconsin State Chamber of Commerce • 1929

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TO: Senate Committee on Environment & Natural Resources

FROM: Scott Manley, Environmental Policy Director

DATE: January 24, 2008

RE: Senate Bill 397 - Electronic Waste Recycling

Wisconsin Manufacturers & Commerce (WMC) appreciates the opportunity to provide input on Senate Bill 397, which would require end-of-life recycling of certain electronic products containing a video display. As a general matter, WMC supports the goal of diverting electronic goods from Wisconsin landfills, and supports the recycling and beneficial reuse of consumer products to the extent it is cost-effective to do so. With that in mind, we respectfully request the Committee's consideration of a number of minor changes to Senate Bill 397 that will clarify the intent of the bill, and simplify compliance. If the changes listed below are made, WMC would support passage of this legislation.

WMC is the state's largest business trade association, with over 4,000 members in the manufacturing, service, health care, retail, energy and insurance sectors of our economy. WMC is dedicated to making Wisconsin the most competitive state to do business in the nation, and toward that goal, *we support consistent, cost-effective and market-driven regulatory approaches that recognize a balance between environmental protection and the competitiveness of Wisconsin's jobs and economy.*

With the minor revisions listed below, WMC believes Senate Bill 397 meets the above criteria because it offers manufacturers flexibility with respect to meeting the bill's regulatory requirements, utilizes existing private sector companies to provide an infrastructure for recycling, and achieves the bill's policy goals while minimizing impacts on the flow of consumer goods in Wisconsin. This approach is much preferable to prior versions of the legislation which offered a comparatively rigid and prescriptive regulatory framework. We appreciate the effort of Senator Miller to focus Senate Bill 397 on a market-based solution to the recycling of video display devices.

To address the issues raised by our members, WMC respectfully requests the Committee's consideration of the following amendments to the bill. Suggested language to accomplish these changes are attached.

1. Revise the definition of "manufacturer" to account for situations where a manufacturer licenses their brand to another company to manufacture video display devices , and assigns, under contract,

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the responsibility for end-of-life recycling requirements to the other manufacturer.

2. Revise the definition of "sell" to clarify that the regulation applies to sales intended for use in households.

3. Revise the definition of "video display device" to specifically clarify that video display devices incorporated into other products for non-household uses, or for medical, security, sensing, monitoring or anti-terrorism purposes, are not regulated by the bill.

In addition to these changes, WMC supports amending the proposed landfill ban to provide waste haulers and landfill operators flexibility for dealing with banned items if they enter the waste stream.

In conclusion, WMC appreciates the effort to craft a flexible and market-driven regulatory framework to promote the recycling of video display devices. We also appreciate the willingness of Senator Miller to work with industry and other stakeholders to address concerns, and clarify the intent of the bill. If the changes listed above are incorporated into the bill, WMC will support passage of Senate Bill 397.

Thank you for your thoughtful consideration of our position with respect to the recycling of electronic goods. Please feel free to contact me if you have any questions, or if I can provide you with additional information, at (608) 258-3400 or smanley@wmc.org.

Proposed Changes to SB 397

Definition of *Manufacturer*:
(i) "Manufacturer" means a person who does any of the following:

1. Manufactures video display devices to be sold under the person's own brand.

2. Sells video display devices manufactured by others under the person's own brand.

3. Licenses the person's brand for manufacture and sale of video display devices by others unless another person assumes the responsibility of collection and recycling or arranges for the collection and recycling of such licensed video display devices.

Definition of *Sell*:
(o) "Sell" means to transfer title or right to use for consideration for use in a household.

Definition of *Video display device*:

(q) "Video display device" means a television or computer monitor with a tube or screen that is at least 9 inches in its longest diagonal measurement and that is marketed by the manufacturer for use by households, except that "video display device" does not include any of the following:

1. A television or computer monitor that is part of a motor vehicle and that is incorporated into the motor vehicle by, or for, a motor vehicle manufacturer or a franchised motor vehicle dealer.

2. A television or computer monitor that is contained within a clothes washer, clothes dryer, refrigerator, freezer, microwave oven, conventional oven or stove, dishwasher, room air conditioner, dehumidifier, or air purifier.

3. A television or computer monitor that is functionally or physically a part of, connected to or integrated within a larger piece of equipment designed and intended for use in an industrial, governmental, commercial, research and development, or medical setting (including diagnostic, monitoring, or other medical products as that term is defined under the Federal Food, Drug, and Cosmetic Act) or equipment used for security, sensing, monitoring or anti-terrorism purposes.

Date: January 24, 2008

To: Members of the Senate Committee on Environment and Natural Resources

From: Forbes McIntosh on behalf of Apple, Inc.

Re: Senate Bill 397 relating to the disposal, collection, and recycling of electronic devices.

Apple opposes Senate Bill 397 because it does not fairly apportion the cost of electronics recycling. Apple requests the following changes to SB 397:

1. **Include the sale of printers in determining a manufacturer's target recycling obligation.**

2. **Include business-to-business sales in addition to household sales in determining a manufacturer's target recycling weight.**

3. **Allow a manufacturer to use weight collected from schools and government towards their recycling obligation.**

SB 397 bans many electronic devices from the landfill, including computer peripherals, like printers, mice, keyboards and myriad of other devices, however only the manufacturers of video display devices have any responsibility for the cost of recycling. The landfill ban is a significant step towards electronics recycling, however, SB 397 puts the entire burden of the cost of recycling e-waste on the manufacturers of video display devices (computers and T.V. screens).

In addition, SB 397 only uses waste generated by consumers in calculating a manufacturers recycling obligation. Some of the largest e-waste generators are not covered by the legislation: large and small business, government, and non-profits. Electronic waste often piles up in schools as equipment is continuously donated; yet under SB 397, this waste cannot be recycled to fulfill a manufacturers obligation.

The best way to approach electronics recycling is at the Federal level because state-by-state regulation can present unique problems of enforcement, jurisdiction, and fairness. However, Apple is a strong advocate of product stewardship and believes that this concept extends to the proper disposal of electronic equipment at the end of its useful life. Apple will support any program that is fair across all participants and in the end creates ease of use for their customers and rewards good product design. **Any legislation that is passed in Wisconsin should be comprehensive in the scope of products and users of electronic equipment.**

Apple designs products with minimal environmental impact and provides means to facilitate environmentally friendly recycling. Apple was the first computer company to fully transition from CRT displays to LCD displays. Just recently, Apple announced new notebook computers, which have mercury and arsenic free displays. Since 1994 Apple has recycled over 21 million pounds of electronic waste. By 2010 Apple expects to recycle 19 million pounds of electronic waste per year.

Apple maintains a variety of recycling programs:

- For customers in the United States, Apple offers a free recycling program of old computers and displays, regardless of brand, with the purchase of a new Mac.

- A free iPod recycling program, conducted through Apple's retail stores, offers environmentally friendly disposal and a 10 percent discount on the purchase of a new iPod.

- Apple's free recycling program will take back your iPod or any cell phone — regardless of manufacturer or model.

- A trade-in program for educational and business customers in the United States has already diverted more than 270 tons of electronic waste from landfills since August 2005.

- Apple's recycling partnership with the City of Cupertino, California, has recycled more than 340 tons of electronics. All electronics products are accepted free of charge, regardless of manufacturer.

- Apple also participates in recycling programs in Asia, including national programs in Japan and Taiwan.

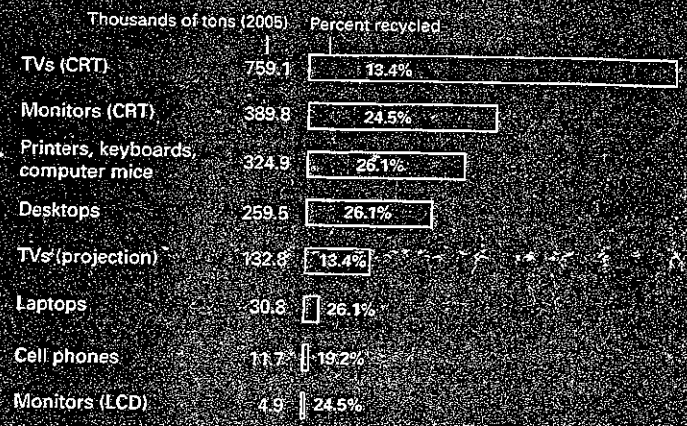
- None of the electronic waste that Apple collects is shipped overseas for disposal.

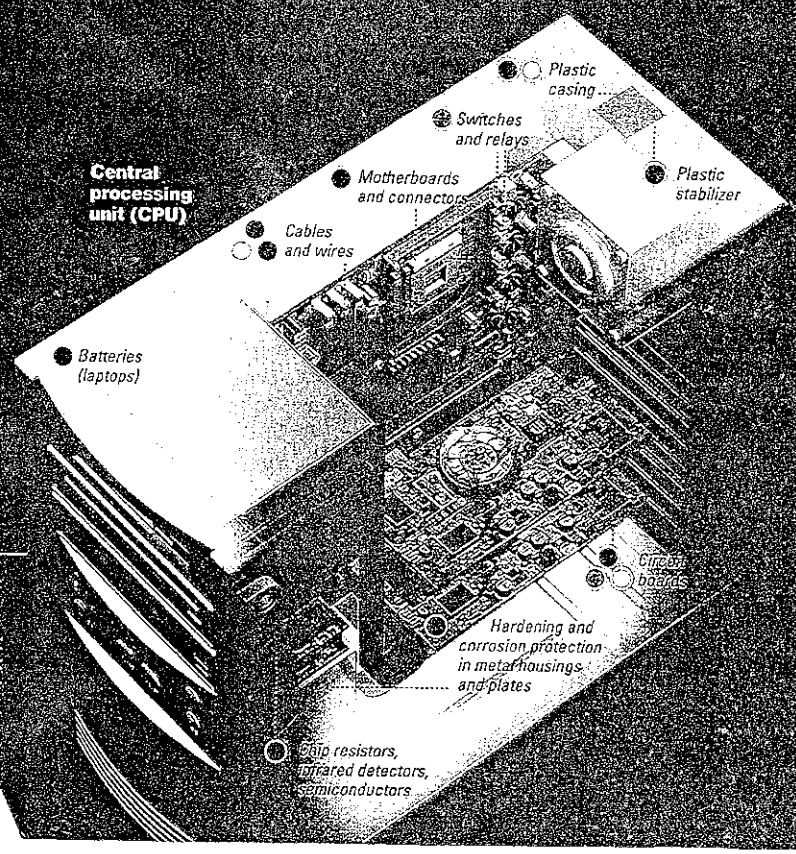
- Apple meets the requirements of the Basel Convention on the Control of Transboundry Movements of Hazardous Wastes and their Disposal.

- In addition to annual compliance audits of Apple's recycling vendors, Apple reviews the performance of their downstream vendors. Recyclers must comply with all applicable health and safety laws, and Apple does not allow the use of prison labor at any stage of the recycling process. Apple does not allow the disposal of hazardous electronic waste in solid waste landfills or incinerators, including waste-to-energy incinerators.

THE FATE OF HIGH-TECH TRASH

When U.S. consumers upgrade their electronics, nearly half the old models aren't trashed: They're stored or given away. Of discarded electronics (graph), a growing percentage are recycled, but most go to landfills, with a tiny fraction incinerated.





HEALTH RISKS

The elements and compounds in e-waste can leach into soil and water or scatter as particles in the air if electronics are buried in landfills, incinerated, or improperly dismantled.

- **LEAD** A neurotoxin, it also harms the kidneys and reproductive system. Even low-level lead exposure can impair a child's mental development.
- **PVC** Incinerating this versatile plastic produces highly toxic dioxins.
- **BROMINATED FLAME RETARDANTS** This group of compounds may cause thyroid damage and harm fetal development.
- **BARIUM** Elevated exposure causes gastrointestinal disturbance, muscle weakness, breathing difficulty, and a rise or fall in blood pressure.
- **CHROMIUM** Inhaling the hexavalent form of chromium can damage liver and kidneys, increase risk of lung cancer, and cause asthmatic bronchitis.
- **MERCURY** Linked to brain and kidney damage; harmful to a developing fetus. It can be passed through breast milk.
- **BERYLLIUM** A carcinogen, beryllium dust causes lung disease.
- **CADMIUM** Long-term exposure to this carcinogen damages kidneys and bones.

SOURCES: U.S. ENVIRONMENTAL PROTECTION AGENCY (GRAPH); STEPHEN MUSSON, UNIVERSITY OF FLORIDA; TOXNET, U.S. NATIONAL LIBRARY OF MEDICINE

ART BY DON FOLEY; DESIGN BY JUAN VELASCO, NGM ART

Senate Committee on Environment and Natural Resources
State Capitol
Madison, WI
January 24, 2008

Comments on Electronic Waste
Nick Ammann
Deputy Manager, State & Local Government Affairs

SB397 – relating to the disposal, collection, and recycling of electronic devices – **Oppose**

Dear Members:

On behalf of Apple, Inc. I applaud the Committee's efforts to draft legislation regarding the issue of Electronic Waste. Apple has long been an advocate of product stewardship, and we believe that this concept extends to the proper disposal of electronic equipment at the end of its useful life. We believe that all parties that have a role in manufacturing, selling or using Apple products also have a role in end-of-life management. Manufacturers should design products with minimal environmental impact, provide means to facilitate environmentally friendly recycling; consumers should select a disposal method that does not adversely affect the environment; governments should develop public policies that promote appropriate end-of-life management, including environmentally friendly disposal and recycling; and recycled materials should be used as feedstock for new products whenever possible.

Apple supports the responsible management of used electronic products in a manner that protects the environment and uses resources efficiently. Apple takes a holistic view of recycling and waste minimization. At Apple, we believe that end-of-life management of electronic products begins with design. We apply this philosophy from the outset, beginning in the design stage by creating compact, ultra efficient products that use high recycling-value materials wherever possible.

Responsible Manufacturing – Removing Toxic Chemicals:

Building world-class products includes considering the materials that go into their creation. Our continuing goal is to reduce or eliminate environmentally harmful substances from our products and processes. Apple recognizes the need for environmentally responsible production, including the use of recyclable materials and the restriction of chemical compounds or materials that can

harm the environment. Apple's record of restricting harmful substances goes back well over a decade. In recent years, Apple has been credited not only for our environmentally forward looking product design, including being named a "Forward Green Leader" by the Sierra Club, but also for our leadership in working to craft sound public policy surrounding this issue. Recently, Apple CEO Steve Jobs authored a white paper (attached) outlining the company's progress towards eliminating toxic chemicals in our products and our plans to expand our product take-back campaign in 2007.

Many of the chemicals we all want to eliminate from electronic products are found in very small amounts, but there's one toxic substance that some companies still ship by the pound, and that's the lead contained in their cathode-ray tube (CRT) displays. A typical CRT contains approximately 3 pounds (1.36 kg) of lead. In mid-2006, Apple became the first company in the computer industry to completely eliminate CRTs. The effect has been stunning — our first CRT-based iMac contained 484 grams of lead; our current third-generation LCD-based iMac contains less than 1 gram of lead.

The European Union is generally ahead of the U.S. in restricting toxic substances in electronic products. Their latest restrictions, RoHS, went into effect in July 2006. All Apple products worldwide comply with RoHS. Our manufacturing policies had already restricted or banned most of the chemicals covered by RoHS, and Apple began introducing fully RoHS-compliant products a year before the European deadline. Despite the tough restrictions of RoHS, there are exemptions that let companies ship electronics that still contain high concentrations of two hazardous substances — hexavalent chromium and the brominated flame retardant decabromodiphenyl ether (DecaBDE). Apple phased out these and many other chemicals several years ago through design innovations and the use of higher quality metals and plastics.

Arsenic and mercury are industry standard materials used in liquid crystal displays (LCDs). Arsenic is added during the manufacturing of the high performance glass used in LCDs to prevent the formation of defects, and the fluorescent lamps used to illuminate LCDs contain minute amounts of mercury. Apple is on track to introduce our first displays using arsenic-free glass in 2007. A small number of high performance integrated circuits (ICs) will continue to contain a minute amount of arsenic as an element of the semiconductor substrate.

To eliminate mercury in our displays, we need to transition from fluorescent lamps to light-emitting diodes (LEDs) to illuminate the displays. Fortunately, all iPod displays already use LEDs for illumination, and therefore contain no mercury. We introduced our first Macs with LED backlight technology in 2007. Our ability to completely eliminate fluorescent lamps in all of our displays depends on how fast the LCD industry can transition to LED backlighting for larger displays.

Apple began phasing out PVC twelve years ago and began restricting BFRs in 2001. For the past several years, we have been developing alternative materials that can replace these chemicals without compromising the safety or quality of our products. Today, we've successfully

eliminated the largest applications of PVC and BFRs in our products, and we're close to eliminating these chemicals altogether. For example, more than three million iPods have already shipped with a BFR-free laminate on their logic boards. Apple plans to completely eliminate the use of PVC and BFR's in its products by the end of 2008.

Product Design:

Apple strongly believes that reducing the environmental impact of our business starts with the design of our products. We set high standards — based on our own requirements and those set by programs such as ENERGY STAR® — in an effort to create products that offer excellent environmental performance throughout their life cycle.

The iMac and Mac Mini are great examples of ultra-efficient design, and illustrate the ways in which Apple continually refines products to further improve environmental performance. Both products also feature built-in wireless technologies such as AirPort and Bluetooth, reducing the need for PVC-insulated cabling.

Our designs also help to reduce energy consumption, minimize the use of environmentally damaging substances, and optimize the useful life of our products — all of which lead to a smaller environmental footprint. Lower energy consumption reduces electricity demand and alleviates the detrimental effects of power generation. Using recyclable materials cuts the amount of waste going into landfill. And restricting environmentally damaging substances makes products safer for consumers and businesses during their useful life and beyond.

The iMac design has continuously improved generation after generation, resulting in increased material efficiency, decreased packaging mass and volume, and decreased energy consumption.

Apple uses highly recyclable materials such as aluminum for iMac, MacBook Pro, Mac Pro, and Cinema Display enclosures, polycarbonate for MacBook enclosures, and glass for iMac display covers. The use of these high-value materials encourages recycling, which helps to minimize waste at the end of the product's life.

Energy Efficiency:

Energy consumption is one of the most significant environmental impacts a computer or electronic device produces over time. That's why one of our key goals in product design is to create products that are energy efficient. Lower power requirements not only reduce energy bills, they also lower demand and mitigate waste, thereby helping to reduce the environmental impacts associated with C02 and other emissions from power generation plants.

There are two ways to reduce a product's energy consumption: by using components that require less power or by using power management software to modulate the energy consumption of these components. Apple employs both techniques to maximize energy efficiency.

We believe efficiency should be the norm. Our computers ship with power management enabled, meaning that a low-power sleep mode will automatically activate if there has been no user activity for 10 minutes. Mac OS X allows your computer to rapidly scale processor performance to optimize energy use depending on how much work the processor is doing, or operate at reduced processor speed to save even more energy.

Apple's continuing efforts to improve energy efficiency have led to a number of notable successes. For example:

- Improvements in CPU power management and the migration to LCD (liquid crystal display) technology enabled a power savings of 92% in sleep-mode and a 73% decrease in off-mode power consumption between the first generation and the current iMac.

- The Mac mini consumes as little as 25W when on, less than half the power consumed by a typical light bulb, making it one of the most power efficient desktop computers in the world.
- Since 1998, Apple has cut the off-mode power consumption of power adapters used with our portable computers by 82% in a no-load situation:

Recycling:

Since 1994 we have recycled over 21 million pounds of electronic waste: 13 million pounds of e-waste in 2006 alone or 9.5% of the weight of all apple products sold seven years earlier (based on a 7-year product lifetime). Our recycling program continues to grow. By 2010 we forecast recycling 19 million pounds of e-waste per year – nearly 30% of the product weight we sold seven years earlier.

While we support a number of legislative approaches related to e-waste, such as those operational in Europe, state-by-state regulation presents unique problems of enforcement, jurisdiction, and fairness. Apple will support any program that is fair across all participants and in the end creates ease of use for our customers and rewards good product design. Electronic equipment that is designed with the environment and recycling in mind is much easier to manage at the end-of-life.

Apple maintains a variety of recycling programs, which add to recycling totals every day:

- For customers in the United States, Apple offers a free recycling program of old computers and displays, regardless of brand, with the purchase of a new Mac.

- A free iPod recycling program, conducted through Apple's retail stores, offers environmentally friendly disposal and a 10 percent discount on the purchase of a new iPod.

- Apple's free recycling program, will take back your iPod or any cell phone — regardless of manufacturer or model.

- A trade-in program for educational and business customers in the United States has already diverted more than 270 tons of electronic waste from landfills since August 2005.

- Apple's recycling partnership with the City of Cupertino, California, has recycled more than 340 tons of electronics. All electronics products are accepted free of charge, regardless of manufacturer.

We also participate in recycling programs in Asia, including national programs in Japan and Taiwan.

All the e-waste we collect in North America is processed there and nothing is shipped overseas for disposal. Apple meets the requirements of the Basel Convention on the Control of Transboundry Movements of Hazardous Wastes and their Disposal. In addition to annual compliance audits of our recycling vendors, we review the performance of their downstream vendors. Recyclers must comply with all applicable health and safety laws, and we do not allow the use of prison labor at any stage of the recycling process. Apple does not allow the disposal of hazardous electronic waste in solid waste landfills or incinerators, including waste-to-energy incinerators.

Legislation:

The best way to approach electronics recycling is at the Federal level. Apple supports the European style approach to electronic recycling that is comprehensive and covers products based on contents not on use.

Any legislation that is passed should:

> **Be comprehensive in the scope of products that it covers.** Apple currently offers take back programs for all of its manufactured products and believes that any manufacture responsibility legislation should target all products that contain similar internal and external components and chemicals. This includes computer peripherals such as: printers, scanners, fax machines, etc.
>
> These products are often more bulky and contain the same chemicals and metals as computers and other electronic equipment.

Comprehensive e-waste legislation must cover consumers, but it must also cover small and large businesses, schools and municipalities as well. Some of the biggest users of electronic equipment are companies and government entities, large and small. These computers often will enter the consumer waste stream at some point, possibly at a faster rate than consumer products, and therefore must be covered.

Incentivize good product design, not discourage it. If manufacturers are required to take-back other companies' products that are designed poorly and are not produced with high quality materials, then the incentive to design good products is diminished. Apple supports product take-back of all of our branded products. However, we believe that requiring companies to take-back other manufacturer's products is a disincentive to design good products. This type of legislation punishes companies like Apple and rewards companies that do far less in product design and recycling.

Cover well-established manufactures like Apple, but it must also cover new entrants to the market. Any recycling obligation must be based on market share and not return share. Return share places the entire burden of electronics recycling on well-established companies and allows for large loopholes in which foreign-based manufacturers can sell into the state and avoid all financial responsibility. Return share based legislation rewards new entrants to the market and companies that produce a product and then quickly leave the industry. Market share calculations more fairly apportion costs to all manufacturers – established and new – equally.

Conclusion:

Apple opposes SB 397 because it does not fairly apportion the cost of electronics recycling. The legislation bans many electronic devices from the landfill, including computer peripherals, like printers, mice, keyboards and myriad of other devices, however the manufacturers of only one product category have any responsibility for recycling. The landfill ban is a significant step towards electronics recycling, however, the legislation puts the entire cost of recycling on only manufacturers of video display devices. The bill is presumably designed this way because of the metals and plastics present in CRT devices, however all of the electronic devices that are banned from landfills contain many, if not all of the same materials.

Apple was the 1st computer company to fully transition from CRT displays to LCD displays. Just recently, Apple announced new notebook computers, which have mercury and arsenic free displays. In addition, Apple will be BFR and PVC free by the end of 2008. We apply this philosophy of environmental design to all of our products and in addition, Apple offers free computer take back with purchase and free take back for our ipods and iphones.

SB 397 unfairly punishes companies like Apple that are designing products with the environment and recycling in mind and rewards the manufacturers of other covered devices, such as printers, fax machines, and other computer peripherals that are doing far less for the environment. These

products are often more bulky and contain the same chemicals, metals, and plastics as video display devices, yet SB 397 overlooks the manufacturers of these devices, removing any responsibility for recycling and product design. Product scope should not be determined by the use of the product, but rather by the contents of the product: products with similar internal and external materials should be treated the same. Under SB 397, manufacturers of non-video display devices have no incentive to design products that are better for the environment and easier to recycle. Instead, SB 397 puts the entire financial burden of recycling Wisconsin's electronic equipment on companies like Apple that already offer take back programs and are designing products with the environment in mind. A better-designed product will have less of an impact on the environment and this should be encouraged, not punished.

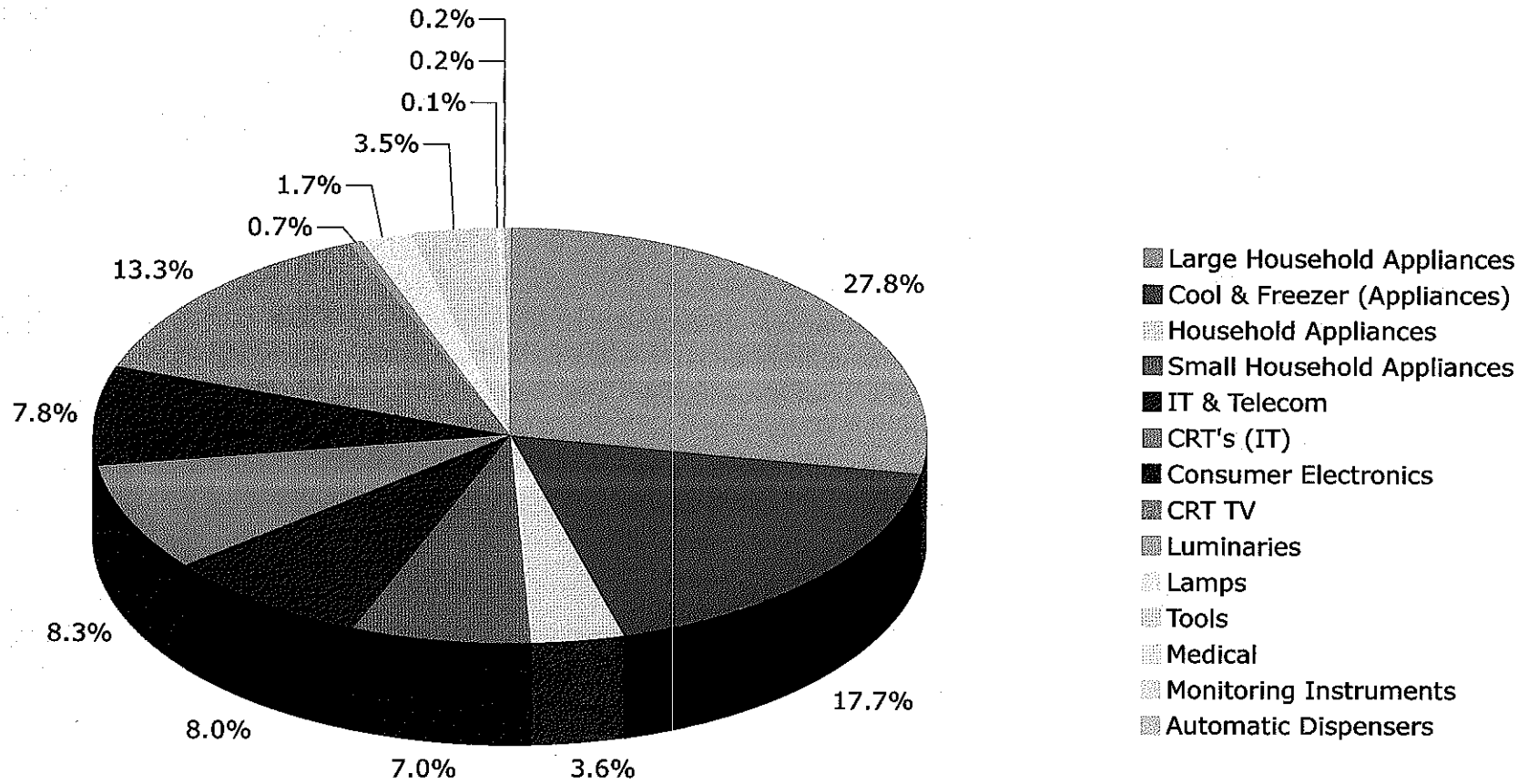
In addition, SB 397 only includes waste generated by consumers in calculating a manufacturers recycling obligation. Some of the largest ewaste generators are not covered by the legislation: waste generated from large and small business, government, and non-profits. Electronic waste often piles up in schools as equipment is continuously donated, yet under SB 397, this waste will cannot be recycled to fulfill a manufacturers obligation.

Apple has supported producer responsibility legislation, including legislation in Europe and the United States. Recently, Apple supported producer responsibility legislation in New York City that apportions costs fairly across all manufacturers of covered electronic devices, not just video display devices and covers waste generated by all entities.

Thank for the opportunity to share our comments on SB 397. We look forward to working with you to develop meaningful e-waste legislation that is fair and comprehensive.

Please do not hesitate to contact me at 408.974.0343 or be email at nammann@apple.com if you have any questions.

EU WEEE Distribution (%) - UN University Data 2004



Testimony on SB 397: Disposal, collection and recycling of discarded electronic devices
Senate Committee on Environment and Natural Resources
January 24, 2008.

Thank you for the opportunity to testify today on SB 397 relating to the disposal, collection, and recycling of electronic devices. My name is Al Shea and I am the Administrator of the Division of Air and Waste at the Department of Natural Resources. I am pleased to testify today on this important bill. With me is Cynthia Moore, the Department's recycling program coordinator.

The Department supports passage of SB 397. We believe the bill creates a state program for the collection and recycling of consumer discarded electronic devices that is comprehensive, fair and does not impose undue burden on state or local governments. This bill achieves those objectives in a way that not only will provide maximum flexibility to key stakeholder groups, but will also contribute to the growth and health of our state's economy and prolongs the life of our landfills.

I'd like to highlight some of the reasons we believe this bill is good for Wisconsin:

1. SB 397 requires manufacturers to share in the responsibility of managing discarded material generated from their products. Such an approach will:

- Relieve state and local governments from the burden of shouldering the full costs of coordinating collection events.
- Encourage manufacturers to design equipment that is easier to recycle, contains fewer toxic substances and perhaps is more durable.
- Provide a consistent plan requiring and facilitating recycling throughout the state.

2. SB 397 offers consistency with Minnesota and likely with other neighboring states. Interstate consistency will:

- Allow manufacturers to achieve economies of scale and reduce transactional costs because the rules and requirements are similar.
- Allow recycling companies to follow the same procedures in states with similar programs such as bidding, contract procedures, compliance, and performance tracking.

3. In the Department's opinion, SB 397 makes good economic sense for Wisconsin. Using the first 6 months of Minnesota's experience with a similar law, the Department believes the bill will:

- Encourage the growth of e-waste collection and recycling businesses in Wisconsin, creating new jobs and adding to the state and local tax revenues. We're confident the Wisconsin program will meet or exceed the number of registrations reported by Minnesota: 60 manufacturers and 40 recyclers, and more than 200 collection sites.
- Lower recycling costs for households. Currently, households may pay $10 - $25 to recycle their computer. But in Minnesota, recycling costs for residents have been reduced in many cases to $2 for a CRT, or eliminated entirely.
- Provide flexibility in business operations and allow solutions to be developed in the marketplace.

4. Finally, by diverting the majority of the estimated 3.8 million computers and 7.5 million televisions in Wisconsin from our landfills, SB 397 will result in extending the life of the state's existing landfills, delaying the need for new or expanded landfill sites.

- The Department believes it is important to have a system in place to handle the huge volume of discarded televisions expected after February 2009 when only digital TV signals will be sent over airwaves.

We commend the sponsors of this proposed legislation for developing an innovative strategy to manage electronic waste in a cost effective way that will also encourage the development of new jobs and businesses. We support this bill and offer our services in working out the details of program implementation.

WISCONSIN LEAGUE OF CONSERVATION VOTERS

Testimony of Kerry Schumann, Wisconsin League of Conservation Voters Executive Director, in support of Electronics Recycling (SB397)
Senate Committee on Environment and Natural Resources
January 24, 2008

Thank you, Senator Miller and members of the Committee, for this opportunity to testify in support of electronics recycling. I want to thank you for addressing what is becoming one of the fastest growing solid waste and public health problems in this country.

Our houses are filled with electronics – TVs, computers, video games. There are the electronics we use every day, and then there are the ones that we no longer use – the ones that are sitting in our basements broken or outdated.

As consumers, we love these new technologies. They make our work easier, our entertainment more varied, our families and friends more connected, no matter where we are. But they also have a downside. Electronics are one of the fastest growing parts of the waste stream. As the pace of technology continues to increase and electronics become obsolete at a faster pace, we will be faced with even more of these old TVs, computers and other electronics that are no longer in use. The sheer quantity of discarded electronics, if they end up in landfills, will force us to expand or build new polluting landfills at a faster rate.

Its not just the quantity that's a concern. Electronics pose an enormous public health and environmental danger. Electronics contain dangerous heavy metals like lead, mercury, cadium, and chromium and toxins like chemical flame retardants. If they end up in landfills or incinerators they pollute our groundwater, surface water and air, and impact the health of our communities.

However, if properly recycled, electronics can be an economic asset, creating jobs and returning valuable commodities to the market. Electronics recycling is a great example of programs that are good for the environment and good for the economy.

The Wisconsin League of Conservation Voters supports this bill – to require the recycling of video display devices and to ban certain electronics from landfills. I'd like to highlight one point that we believe is very important in this legislation. We want to do everything possible to ensure that the fees collected through this program are used to administer this program and not raided for other uses, which would be accomplished by placing them in a segregated account. We appreciate that an amendment to that effect will be added to the bill.

Thank you again for addressing this growing problem, and for working so hard to craft a bill that such a diverse set of organizations, businesses and individuals can support.

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NSWMA National Solid Wastes Management Association
The Voice of the Private Waste Services Industry

To: Senate Committee on Environment and Natural Resources
From: Jason Johns, representing the Wisconsin chapter of The National Solid Wastes Management Association
Re: SB 397
Date: January 24, 2008

Dear Chairman Miller and Members of the Committee:

On behalf of the National Solid Wastes Management Association, Wisconsin Chapter, I wish to express our support for the substitute amendment that has been described to you today by Senator Miller. Specifically, we support the provisions in the substitute amendment that we understand will ensure that waste generators, and not waste collectors, will be responsible for ensuring that discarded electronics are recycled rather than landfilled or burned.

The substitute amendment remedies the inequity that occurs when placing the burden of properly disposing of E-Waste on the recycler or landfill operator and not on the generator of the waste. Not only does it address the inequity of enforcement but it also provides access to recycling subsidies to help diminish the costs incurred by a recycler when it is impossible to determine where the E-Waste was generated. We applaud this as well.

NSWMA is very supportive of this substitute amendment and asks for your vote in passing it out of this committee. If this were to occur we would be pleased to register in support of its substitute amendment.

Thank you,

Jason Johns

Wisconsin Chapter of the National Solid Wastes Management Association

RecycleThatStuff.com
Resource Solutions Corp.

January 24, 2008

Comments Regarding 2007 SENATE BILL 397

Resource Solutions Corp. agrees with the environmental need to keep video display devices containing cathode ray tubes out of the landfill. We also support the banning of all televisions, computer monitors, computers, computer peripherals, facsimile machines, digital video players, video recorders, and telephones with video displays from being disposed of in landfills. In fact we support the banning of all consumer electronics from the landfill. With the national and international expansion of recycling industries and markets, as well as the environmental concern that surrounds both the banned materials, and landfill expansion in general, banning these materials from the landfill promotes the further growth of recycling and helps to protect our environment.

We would like to comment on the following aspects of the proposed bill:

Registering or licensing of Manufacturers, Retailers, Collectors, and Recyclers

This is a huge resource consuming activity that will use a significant amount of both human and natural resources. If electronic devices are banned from landfills, they can go into storage or into the recycling stream, and ultimately stored items eventually will end up in the recycling stream. We didn't take this approach with other items previously banned from landfills like lead acid batteries and major appliances; they have all found their way into the recycling infrastructure without the need for micromanagement and the additional use of precious human and natural resources.

Operational Requirements - Use of Prison Labor

We shouldn't be regulating what types of employees or sub-contractors business can use. If we prohibit using prison labor, doesn't that also shut down the entire prison industry in the state? Could this lead to other stakeholders prohibiting the use of holders of green cards, and other non-residents?

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Phone: 608-244-5451 Fax: 608-244-2500

RecycleThatStuff.com
Resource Solutions Corp.

Operational Use – OECD Requirement

We disagree with mandating where any recyclable materials can be shipped. Materials need to be free to move to any open markets in the global economy. Resources move to where they are needed. Membership in the Organization for Economic Cooperation and Development is open by invitation only and it's membership is comprised mainly of wealthy first tier countries. While they have some admirable goals, they are limited only to OECD members, not the rest of the global community. The members of the OCED have all had their superfund sites and black spots on the environment; they have no monopoly on favorable environmental practices. We truly live in a global society and all competitors for resources deserve to have access to them.

Outreach and Communication

We believe that the Department of Natural Resources, county and local government, as well as the recycling industry have done a good job of recycling program outreach and communication. This will continue to be an important issue with the banning of additional items from the landfill and should be encouraged with additional funding and support.

In summary, we support the banning of electronics from the landfill and feel that this action will help to further safeguard our environment. We also support allowing the recycling markets and industries to accommodate and expand the efficient recycling of these items without unnecessary prohibitions, restrictions, and micro-management.

Respectfully Submitted,

Amanda Wilmarth
Vice President of Corporate Development

Keith E. Boeger
Chief Executive Officer

5493 Express Circle, Madison WI 53704
Phone: 608-244-5451 Fax: 608-244-2500

Senator Mark Miller
John Anderson

CRT Processing is very pleased with your offices' initiatives in adopting this properly handling of Electronic Waste Bill. We certainly agree with the majority of the bills context. CRT Processing is very proud to play an integral part in Wisconsins' management of ElectronicWaste. We strongly agree with establishing Wisconsin as the leader in environmental preservation and proper recycling throughout the Country. As you're well aware more than 60% of all e-waste generated in the United States is improperly disposed of overseas. Wisconsin can set an extremely important precedent by not allowing this to continue in our State. We'd ask that you utilize our experience in the industry, and consider these important concerns.

1) **Besides adopting standards for recycling equivalent to the "Electronics Recycling Operating Practices", Certified Recyclers must meet and exceed the Federal CRT Rule, enacted 1/29/07. This should be enforced immediately upon enactment of this legislation. EPA regulators are more than willing to assist DNR with enforcement all ready in place. Allowing "no later than 3 years" is not productive for global environmental preservation. We should also raise our penalties to equal the Federal rule.**

2) **Certification Requirements for Recyclers: Toughen the Responsibility of the Recycler. Must report all equipment received, exported and recycled. If we demand lawful compliance by reporting all activities, the non compliant won't apply for certification. This is the minimum enforcement the Manufacturers paying for this law should expect. They shouldn't be cheated by "recyclers" for profit.**

3) **CRT and Mercury bearing devices may not be exported under any circumstances prior to proper recycling: As above, the**

Federal law is in place. If a manufacturer is paying for recycling, they should expect these services. Exporting working CEDs to OECD countries still leaves "working" for interpretation. Tested , operable equipment not requiring further repair and destined for direct use without modifications, is the minimum statement in this category. The equipment should minimally meet original manufacture resolution capabilities. Units with "screen burn" are not usable or repairable equipment.

CRT Processing, LLC would like to invite you and any of your constituents to tour our operations. I'm sure a tour of a facility that completes the entire recycling process would help your evaluation of the industry.

Thank you very much, for considering our concerns. We very much appreciate your efforts to solidify Wisconsin as the leader in Electronic Waste legislation.

Jeff DeGarmo
CRT Processing, LLC
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