

TESTIMONY OF

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On behalf of  
MANUFACTURERS COALITION FOR RESPONSIBLE RECYCLING

Before the House Committee on Energy and Commerce Subcommittee  
on Environment and Hazardous Materials

September 8, 2005

**Electronics Manufacturers Coalition for Responsible Recycling consists of major manufacturers of televisions, computers, and laptops.**

Canon USA  
Epson  
Hitachi America  
IBM Corporation  
JVC America

LG Electronics  
Mitsubishi Digital Electronics America  
Panasonic Corporation of North America  
Philips Consumer Electronics North America  
Pioneer Electronics (USA) Inc.  
Samsung Electronics America

Sanyo Fisher  
Sharp Electronics  
Sony Electronics  
Thomson Inc.  
Toshiba

Chairman Gillmor, Ranking Member Solis, and members of the subcommittee, my name is David Thompson, Director, Corporate Environmental Department, Panasonic Corporation of North America.

I am here today on behalf of the Electronic Manufacturer's Coalition for Responsible Recycling ("Coalition"). The Coalition commends you on your leadership and is pleased to have the opportunity to present our views on an emerging issue of concern - the collection and recycling of electronic products.

The Coalition consists of 16 major manufacturers and marketers of consumer, commercial and industrial electronic products.

Our Coalition members have actively supported the recycling of used electronic products and have been deeply involved in developing product recycling systems in the US, Japan, Europe, and other countries around the world. Collectively we have recycled more than 1 million tons of electronic products to date. Our Coalition members have also led the electronics world in eco-design, ranging from energy efficiency, hazardous material minimization, and design for recycling. My company alone spent almost \$125 million on environmental product design improvements just last year, and almost \$725 million from 1999 – 2003.

Here are a few of our members' noteworthy accomplishments:

- IBM is the world leader in computer equipment recycling, having recycled over 1 billion pounds to date.
- Panasonic and Sanyo played a leading role in establishing the successful Rechargeable Battery Recycling Corporation (RBRC) Program. Sony is also an RBRC member company and Board member.
- JVC, Panasonic, Sharp, and Sony have developed a voluntary Shared Responsibility Program, under which we have sponsored over 1,000 collection events over the past 5 years in the United States. These events have collected over 10,000 tons.
- LG, Philips, Panasonic, RCA, Samsung and Sony have lead the way in incorporating post-consumer recycled CRT glass into new picture tubes, in some cases achieving 20% post-consumer CRT glass recycled content.
- Canon operates a world-leading printer cartridge recycling program.
- Sharp is the world leader in the manufacturer of solar panel displays.
- Sony used 160,000 tons of recycled materials in 2004.
- Panasonic and Sanyo are the world leaders in manufacturing Ni-MH batteries used to power hybrid cars, trucks and buses. Look in the trunk of a Prius hybrid automobile and you will find a Panasonic battery.
- Mitsubishi Electric established the first home appliance recycling plant in 1988.

Based on our collective experience around the world in establishing recycling systems, our Coalition came together in California to support The Electronic Waste Recycling Act of 2003, a new law that established a state-wide recycling system financed by a point of sale advanced recycling fee.

The Coalition members have been for some time strongly committed to helping design and implement a national system for electronics recycling. Many of us were active participants in the three-year NEPSI process.<sup>1</sup> We believe that the NEPSI negotiations resulted in the detailed design of an excellent national system, one which was supported by the great majority of the NEPSI stakeholders. We understand that a small number of companies and stakeholders prefer a different approach, and we have worked hard with them to craft a compromise. Unfortunately these efforts have been unsuccessful to date and we are left with competing proposals. We

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<sup>1</sup> A National Electronics Product Stewardship Initiative was convened by the U.S. EPA in order to provide all key stakeholders an opportunity to discuss and debate comprehensive responses to the electronic product recycling challenge, particularly the finance aspect associated with collection and recycling.

believe that a compromise is within reach and we are still committed to achieving that compromise.

### **Summary of Competing Approaches**

In this testimony, I will lay out the details of the two competing approaches and their pros and cons from the Coalition's perspective. We understand that it is time to make progress toward a compromise. I will therefore conclude our testimony with a set of principles that we believe are important to recognize in developing a compromise.

***The consumer fee approach:*** In simple terms the NEPSI majority solution is based on a consumer fee that is paid on every covered product – an advanced recycling fee. The fee provides the money needed to finance the entire recycling system – collection through processing plus public education. A private third-party organization, consisting of manufacturers and other stakeholders, would contract for services, assure that environmental standards are followed, provide public education, and report on results.

***The manufacturers' responsibility or take-back approach:*** In contrast the alternative approach assigns a responsibility to each manufacturer to recycle a share of products that are returned. Their share, in most cases, is determined by the portion of their brand that is returned, plus in some models, an allocation of old products for which the brand no longer exists, called orphan products. Manufacturers individually or collectively figure out how they will meet their responsibility and contract for services. Often local governments are asked to pay for collection from the public.

In both approaches the consumers pay for recycling services at the time of new product purchase. In the first the fee is visible, while in the second it is internalized in the product price and not visible.

### **Coalition Approach: Support Advance Recycling Fee Collected at Point of Sale**

The California legislation embodies our concept of a shared responsibility system based on a consumer fee, where all stakeholders have defined roles of responsibility.

- Manufacturers must design environmentally conscious products
- Consumers pay an advanced recycling fee to cover the costs of collection and recycling
- Retailers collect the required fee. Manufacturers who sell products at retail also collect the recycling fee.
- State government manages the financing of the collection and recycling system, as well as ensuring a level playing field.
- Local governments organize and provide collection services and their costs are paid out of the fee revenues. Retailers and manufacturers, to the extent that it makes business sense, may also provide collection services and receive compensation.

- Manufacturers, retailers, and both state and local government cooperate to provide education.
- Manufacturers report on design-for-recycling plans and progress, chemical usage, and consumption of recycled materials.

An advanced recycling fee has a number of advantages:

- Visible to the consumer, it delivers a strong educational message that the consumer has a role to play in recycling used products and that recycling programs are available. A visible fee will also direct consumer pressure toward keeping recycling costs as low as possible.
- In contrast to the internalized costs envisioned by take-back models, a retail fee will not be marked up as the product moves through the distribution chain (typically 30% or more) and will not be taxed, thereby minimizing the cost of recycling to consumers.
- Eliminates the competitive disadvantages associated with systems based on waste stream share. (The European Union Waste Electrical and Electronic Equipment Directive (WEEE) established financial responsibility on current and future sales, and not retroactively.)
- Creates one unified system as opposed to several competing, confusing systems that may minimize potential economies of scale.
- Eliminates costly brand sorting
- Eliminates orphan problem
- Easier to enforce than take-back models

Our Coalition acknowledges that the California Advanced Recycling Fee system is not perfect. Particularly, no one likes to pay a fee, but we should also acknowledge that in some states consumers have become accustomed to paying a user fee to ensure the proper recycling or disposal of used motor oil, tires, and car batteries.

In addition we recognize that in California the State bears the burden of managing the infrastructure – the Waste Board audits and pays the companies that provide collection and processing. These functions could be better performed by a private entity. The Coalition is working with other stakeholders in a project sponsored by EPA in the Pacific Northwest to design a private third-party organization that would deliver these services more cheaply and efficiently than government can.

Of course there are some other issues that need to be addressed including:

- Legitimate enforcement issues against remote sales. Data collected to date, however, indicates that California is meeting its projected revenue targets, suggesting a high level of compliance.
- Retailer start-up and administration costs. (Retailers are allowed to keep 3% of the fees they collect to cover administration costs.)
- The fee was set too high. The California statute has an adjustment mechanism.

We believe there is room for improvement, and have proposed a number of suggestions.

### **Maine Statute Disadvantages North American Manufacturers**

In contrast to the California Advanced Recycling Fee system, Maine has passed the first manufacturer take-back law in the United States.

Our principle concern centers on a fundamental inequity the Maine approach places on established manufacturers (and by extension on North American manufacturers) vis-à-vis newer market entrants. First, our research indicates that televisions are on average 17 years old when discarded and that computer monitors are about 11 years old. Second, we are experiencing a wave of new manufacturers, primarily from China, entering the North American market. According to an article in the May 2005 edition of Smart Money, "Behind the Glass," there has been a wave of new entrants into the television manufacturing business with 127 brands now available, 70% more than a decade ago. Since the Maine law requires manufacturers to finance the management of their own products based on actual collection volumes, established manufacturers will have take-back costs while the 70% of the new market entrants will have no costs since their products are simply too new to be winding up in the recycling system. Only basing responsibility on current sales can eliminate this disadvantage to established manufacturers and their North American workers.<sup>2</sup>

Maine's approach to orphan products could further exacerbate this competitive disadvantage. Maine, the only state that has passed take-back legislation, is attempting to allocate responsibility for orphan products based on a manufacturer's waste stream share. Obviously, such an approach places the established, legacy manufacturers at a double competitive disadvantage to the newer market entrants, even though neither subset of the market (those with waste shares and those too new to the market place to have a waste stream share) is in any way responsible for the orphan problem. The only fair way to deal with orphan products is to base responsibility on current sales. Unfortunately this would result in a complex and burdensome dual financing system that would be difficult to administer and enforce.

### **Requires time-consuming and expensive separation by brand**

In order to allocate manufacturer responsibility under the Maine system, collectors and recyclers would have to sort products by brand, an extremely burdensome and costly endeavor. A recent brand sort completed by Hennepin County, Minnesota, during the last six months of 2004 looked at 17,134 TVs and 11,920 computer monitors by brand. Hennepin County reported 281 TV brands and 458 computer monitor brands respectively. While some brands have significant waste stream shares, the vast majority of the brands have waste streams shares that are below 1%: 258 TV brands

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<sup>2</sup> Additionally, new brand compliance in Maine appears to be less than 25%, based on the most recent information published by Maine Department of Environmental Protection (DEP). (Waste stream share compliance is much higher, approaching 80% based on April 21, 2005 summary prepared by Maine DEP.

and 438 computer monitor brands. It should be clear that attempting to manage collection by waste stream brand is going to be extremely burdensome and expensive.

It will be argued that brand sorting can be minimized through periodic sorting and reporting in order to establish manufacturer shares and proportionate responsibility. While possible in theory, sorting will still have to be done frequently in order to catch the brands of the new market entrants as soon as they begin entering the waste stream.

### **Multiple programs will be confusing and ineffective**

The disparity in waste stream shares described above will result in those companies with larger shares establishing their own programs and smaller companies attempting to band together. The result will likely be a mish-mash of competing programs that will be both extremely difficult for Maine to administer and confusing for consumers, local governments and retailers to utilize. These divergent programs will place enormous burdens on compliant companies to achieve the public awareness goals outlined in the bill.

### **Take-back does not provide a meaningful design incentive**

Let me refer to an example from my own company's activities, which I believe is indicative of what all leading electronic manufacturers are doing. Panasonic recently completed a redesign of our complete line of CRT-technology TVs in order to make them easier to recycle. Compared to a Panasonic TV manufactured in 1980, we have reduced the number of plastic resins we use from 13 to 2. We have reduced the number of plastic parts from 39 to 8, not only making the sets easier to disassemble, but improving the ability of the recyclers to sort and manage the plastic parts more effectively. In all, the disassembly time has dropped from approximately 140 seconds to 78 seconds. I am confident that other TV manufacturers are in the process of making similar design improvements.

While we, like all members in our Coalition, endeavor to design products where the value of the materials contained within will cover the cost of collection and recycling, these design changes will not benefit the recycling process until the newly improved sets have exhausted their useful life 15 – 17 years from now. This time lag calls into question the common supposition that mandated product take-back requirements will lead to design improvements. No chief financial officer would approve even an incremental investment in recycling design in the hope that the investment would be recouped or would advantage the company 15 years in the future. Companies that suggest otherwise are being disingenuous.

Under the type of take-back system mandated by the Maine legislation it should be clear that Panasonic would not receive any immediate financial benefit from the design improvements already made. It is quite possible that the added costs of complying with the Maine statute will actually reduce the amount of resources available to implement environmental design enhancements, given the ongoing competitive pressures now

prevalent in the electronic marketplace. I therefore urge you to consider a system where market forces are harnessed to encourage and reward design innovations. The US Environmental Protection Agency's ENERGY STAR Program and newly launched Electronic Product Environmental Assessment Tool (EPEAT) represent excellent examples of a positive role the federal government can play in assuring product designers work diligently toward environmentally conscious designs.

### 2000 Panasonic TV Components and Materials

**Comparison of Panasonic TV Models from 2000 versus 1984**

Types of Plastics Reduced from	13 to 2
Number of Plastic Parts reduced from	39 to 8
Time for Disassembly reduced from	140 seconds to 78 seconds

### Early 1980s Vintage Panasonic TV Components and Materials

In addition to the types of specific design for recycling efforts already discussed, it should be re-emphasized that all of our Coalition companies have accelerated plans to reduce or eliminate the use of potentially hazardous chemicals in the manufacture of and contained within our products.

### **Going Forward: The Federal Government**

First, we need an accurate understanding of the problem and the challenge. The most recent governmental study was concluded by the National Safety Council back in May 1999. We need to better understand:

- How many products of concern are being generated
- The capability of the domestic recycling industry in terms of capacity and technology
- The adequacy and viability of secondary markets for materials contained in electronic products, both in the US and around the world
- The volumes of electronic products that are being exported, and the adequacy of overseas recyclers.
- The economic consequences of different financing mechanisms: An advanced fee versus cost internalization models versus pay-to-throw systems.
- The adequacy of modern landfills to handle the disposal of electronic products.

A national study conducted by US EPA would answer these questions. As recently written by the EPA-appointed NEPSI facilitator, “Prior to starting a full-fledged dialogue, an adequate level of base research must be in place. ... [In] the NEPSI dialogue, this baseline did not exist at the outset, which created recurring disagreements through the dialogue on basic facts.”<sup>3</sup>

We need a system of consistent laws and regulations that do not burden commerce in new products and recyclable materials unnecessarily. The so-called CRT rule would help achieve this goal.

We need a system that actually rewards investments in environmental design. We have suggested some approaches that are preferable to mandating take-back in order to accomplish such a goal.

Again our Coalition companies are generally supportive of up-front, fee-based financing models, particularly fees assessed at the point of retail sale and run by independent 3<sup>rd</sup> party organizations.

Our Coalition has prepared a white paper on electronic product recycling that provides an in-depth discussion of the above issues and challenges, as well as model ARF legislation and a suggested design incentive system. Copies are submitted for your review.

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<sup>3</sup> “Lessons Learned from Multi-stakeholder Dialogues”, Catherine Wilt, Resource Recycling, August 2005.

## **Recommended Principles of a National Solution**

In closing, the Electronic Manufacturers Coalition for Responsible Recycling stands by to work with the Committee to address this emerging issue. It's time to find a solution – the public is rightly expecting a way to reasonably and responsibly recycle their old electronics which are accumulating every day.

We understand that compromises will need to be made in order to bridge the gaps that separate companies favored approach to this challenge. Above we offered you our preferred solution – the advanced recycling fee. Here we offer three simple principles that should guide a compromise solution.

- The solution should actively engage and involve all stakeholders, each in proportion to their ability to contribute. Each stakeholder group is best able to provide some elements of the needed system. By all sharing in the burden it will not fall too heavily on any one group.
- The solution should not disadvantage any manufacturer or retailer over others. In particular, an unfair burden should not be placed on small companies because they lack the resources of a nationwide presence, nor should unfair advantage be given to recent market entrants because their products will not enter the recycling stream for years. All companies should be treated equally.
- The national solution should be as straightforward and efficient to implement as possible. It should avoid complex or contentious regulations and enforcement.

Thank you again for the opportunity to present our views and ask for your leadership on this issue.

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