

Panasonic Perspective on Electronics Waste Issue

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- Panasonic is a leading global manufacturer of consumer and industrial electronics
- Record of environmental achievements
 - Named to 2006 Global 100 Most Sustainable Corporations
 - EPA ENERGY STAR award recognition 7-consecutive years
 - 3-Time EPA Waste Wise award recognition
 - Focus on enhanced eco design has produced “greener” products with a reduced environmental footprint

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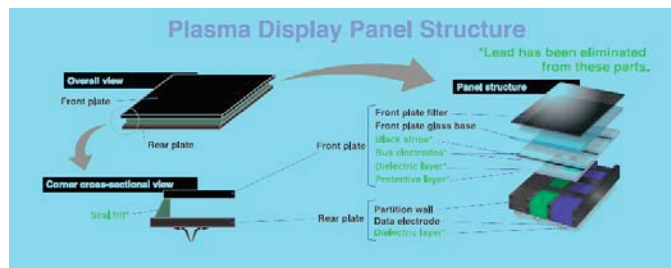
- Panasonic is first manufacturer to eliminate the use of lead in our plasma TV display panels
 - Production of lead-free panel is significant technological advance
 - Entire lineup of plasma TVs now use lead-free panels



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- Innovative new PDP design uses alternative materials to stabilize production process



- Panasonic plasma TVs also use no leaded solder, mercury, cadmium, or brominated flame retardants on outer cabinet meeting strict European design requirements

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- **Issue of e-waste continues to pose a challenge to all stakeholders**

- Absence of a uniform national approach forces hard choices at state and local levels
- State level decisions can have great impact on local recycling industry
- Difficult to gauge impact of prospective regulations making a review of current laws instructive



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- **3 Current state laws vary widely in approach**

- California uses upfront fee at time of sale to fund collection, transport, and recycling of computer monitors and TVs
- Maine uses consolidators to collect and recycle CRT-containing products with manufacturers paying full recycling costs
- Maryland assesses annual registration fee on computer and computer display manufacturers to supplement county-run recycling of electronics

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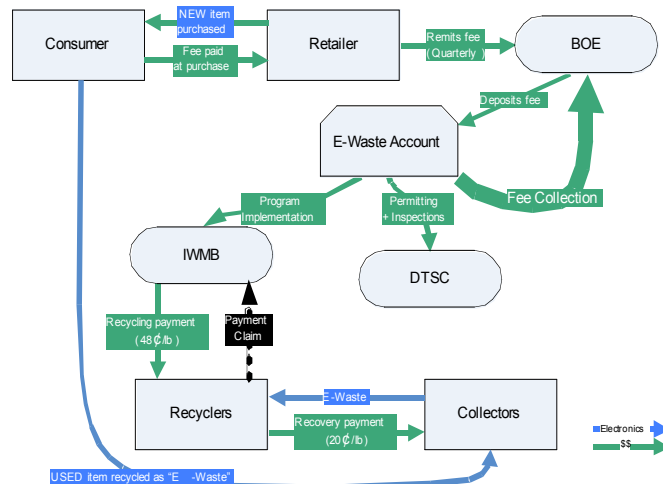
- **California system exceeding expectations**

- More than 190 million pounds of e-waste diverted from waste stream in first 2 years of program
- More than four-fold increase in number of in-state recyclers and collectors since program inception in 2005
 - Now 55 recyclers and 529 collectors approved in state
- Non-profits like Goodwill and some retailers have begun collecting products
- Program to be expanded to cover additional products
 - DVD players in 2007
 - Proposal to add computers under consideration

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- **How California's system works**



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- **Panasonic, along with 14 other leading global manufacturers, supports an advance recycling fee**
 - Based on our experiences in California, several European countries and Japan
 - **An ARF:**
 - Provides sustainable source of funding for comprehensive recycling
 - Gives consumers strong educational message about need to recycle
 - Market forces drive eco design improvements through consumer pressure on manufacturers and retailers
 - Avoids retail markup associated with costs buried in product price

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- **Producer responsibility mandates flawed**
 - Based on false premise that PR delivers better eco design
 - Neglects to consider significant differences between TVs and computers that require different waste management schemes
 - Computer recycling approaching cost neutrality making them more attractive to recyclers
 - Allows IT companies to offer manufacturer take back
 - Long life span for TVs contributes to greater recycling expense
 - TVs are similar to solar panels: Lead time too long to justify upfront investment
 - Little recoverable materials of any value
 - Size and weight contribute to higher recycling expenses

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- **Current situation**

- 23 states have introduced e-waste legislation so far in 2007
 - No clear consensus on state approach (ARF or PR)
- Federal legislation unlikely to advance in 2007
- Industry division over preferred approach recipe for continued stalemate in near-term
 - Ongoing negotiations focused on compromise to accommodate both consumer electronics and computer manufacturers
- Additional delay will only compound attention to e-waste issue

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- **Going forward on e-waste**

- Any final “solution” should take into account differences in:
 - Product materials design
 - Longevity of product use (17-year average TV lifespan)
 - Sales channels (accommodate both retail and direct sales)
 - Collection and return vehicles
 - Local infrastructure capabilities
 - Political requirements
- Solution should also:
 - Ensure equity to protect established manufacturer interests and reflect rapidly expansion of brands entering market
 - Be sustainable, efficient, and provide environmentally sound management

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