

Frequently Asked Questions About EPR and ARF

Many states are taking legislative action to solve their spiraling e-waste problem. Currently, there are two basic approaches (financing mechanisms) that are most commonly debated: ARF (Advanced Recycling Fee) and EPR (Extended Producer Responsibility). The Computer TakeBack Campaign supports extended producer responsibility policy solutions to the e-waste problem, as opposed to the ARF model. Here are some commonly asked questions about both.

How does the ARF system work?

Under the Advanced Recovery Fee (ARF) model, consumers pay a fee at retail (like a sales tax) when they purchase products, to cover recycling. Typically, the money collected by retailers then goes to a state agency, which reimburses either recyclers or local collection programs for recycling costs. The manufacturers are not involved in the ARF financing model.

How does the EPR system work?

Under the Producer Responsibility system, sometimes called Extended Producer Responsibility (EPR), the basic concept is that manufacturers (or brand owners/importers) pay for collection, transportation and recycling e-waste. EPR works most effectively to stimulate design improvement when there is individual producer responsibility and competition among producers. Individual responsibility can be achieved by having companies take back and recycle their own products, or through other mechanisms that reward green design and effective collection.

Why does the Computer TakeBack Campaign support EPR?

E-waste legislation must achieve **two equally important environmental goals**:

- a. Stop sending electronic waste into the landfills, and get them into reuse and responsible recycling programs
- b. Make the products less toxic in the first place, so they are easier (and cheaper) to recycle.

If we don't address BOTH issues, then we are not solving the problem. By giving the manufacturers the financial or physical responsibility for their products at the end of their useful life, then we also give them the financial incentive to redesign them to be more recyclable – to design out the toxics. Under the ARF system, the manufacturers have no responsibility, so this model will not promote design change.

EPR also meets a third (economic goal) – it transfer costs from local government and ratepayers back to those who design and profit from the goods. Budget-strapped local governments spend millions in taxpayer or ratepayer money on solid waste management or recycling programs that accept electronic waste. As more electronic products are made to be almost disposable, it means taxpayers are virtually subsidizing the more wasteful manufacturers.

Why should we make the manufacturers pay for recycling? Shouldn't consumers pay – they are the ones buying this stuff?

Under either system, consumers ultimately pay. In the ARF system, consumers pay the added amount when they buy a product. Under EPR, the manufacturers internalize the cost (include it in the price). But **EPR can MAKE THE MARKET WORK to motivate design change**. If a manufacturer can make its products easier to recycle, then they can add LESS cost to the price, and gain a market advantage over companies who have not made their products more recyclable, provided that individual producer responsibility is built into the system....

In fact, Dell argues that their price to consumers won't increase at all because e-waste will become more valuable as they use more recyclable materials including plastics.

But why make companies pay for recycling their old products, not just new ones? Or...they didn't know when they made them that they would have this financial responsibility, so they didn't plan for it.

The companies have always known that their products contained toxic materials. We have a long tradition in this country of allowing companies to "externalize" the costs of dealing with toxic waste – basically requiring taxpayers to pay for the costs of disposal and waste cleanup. So these older companies have already made significant profits from this free ride.

But many cities and counties have recycling programs. Shouldn't we just fund them better?

While some cities and counties have recycling programs, many local governments do not want to be in the recycling business, or do not want to have to expand them exponentially to meet the explosive demand. Local governments simply do not have the capacity or resources to deal effectively with complex, bulky and toxic electronics that have been designed for "free" and easy disposal.

Local solid waste agencies are faced with the problem of what to do with a whole list of toxic products: electronics, mercury switches and bulbs, batteries, paint, pharmaceuticals, tires. Increasingly, they are concluding that the only logical solution is to make the manufacturers responsible for all of these products. Moreover, using tax dollars fund e-waste management is a subsidy that works against a solution – it ensures continued production of products designed for the dump.

Isn't the California ARF system working well?

The California ARF system has generated more recycling than before the system, although no one has data on recycling before the law, so we don't know by how much. But since the manufacturers have no involvement in the California system, there is nothing that will lead them to changing their products. Also, the California system is very expensive to manage; they spent 16% of the income on overhead costs in 2005.¹

Doesn't the California's system mean consumers are paying for their recycling "in advance" – at the time they buy their products?

Not really. The amount consumers pay on TVs and monitors is \$6, \$8, or \$10, so the average

¹ Jeremy Gregory and Randolph Kirchain, *MIT Materials Systems Laboratory*, "A Comparison of North American Electronics Recycling Systems," October 2006. Page 11.

fee is \$8. But the average cost to recycle a TV or monitor in California is **\$25** per product – more than three times as much as they are collecting.²

Why not just have the consumers pay a recycling fee at the transfer station?

Unfortunately, paying a fee at disposal time is enough of a disincentive to keep many people from recycling electronics products, especially if it's free to put the products in the trash, as it is in most states. Recycling solutions must be both easy and free at recycling time to get people to use them on a large scale.

Isn't the ARF system like the one we use already for tires and bottles?

While it's true that some states charge fees on tires and bottles, **neither of these are really comparable** to the challenge of e-waste recycling:

Bottles. The bottle deposit system is not the same as an ARF. Bottles are not toxic products, and deposits on bottles sold are supposed to act as an incentive to get consumers to return the bottles later. The ARF program isn't a "deposit" to promote recycling, since you don't get it back. In fact, in California, the fee only covers about a third of the actual recycling cost. If anything, the bottle bills are closer to EPR because the programs are run by distributors, which are largely controlled by the manufacturers, and have little local government involvement.

Tires. Most states require tire retailers to charge some kind of fee – usually up to \$2 per new tire, which is sometimes used for recycling, but more often to pay for cleanup of tire dumpsites. In some states such as Texas, the \$2 fee isn't enough to cover the recycling costs, so tires are stacking up in tire graveyards posing a fire hazard.

Why don't we just let the free market work here?

The EPA tells us that 87.5% of discarded e-waste ends up in landfills or incinerators, and only 12.5% goes into the waste stream. And most of that ends up being shipped to China or other developing countries, where it usually undergoes a very primitive recycling process (like using hammers to smash monitors and TVs) which result in toxic exposure for workers and communities. In Guiya, a China e-waste salvage center, more than 80% of the children have lead poisoning.³ Because e-waste is the fastest growing waste stream, we need legislation to promote responsible recycling options. The free market is only "working" if we think that dumping these toxic products in our landfills or in poor communities across the globe is "working."

The TV companies say the ARF is "fair and self supporting."

The ARF financing system is only "fair" if you think the companies should have no responsibility whatsoever for their products at the end of their life. Only consumers pay for the ARF system. **The companies pay nothing and have no responsibility.**

It's also hard to see how this can be a self-supporting system over time, when you consider all the various products out there that need to be recycled. Are we going to ask retailers to add

² California Integrated Waste Management Board staff member Jeff Hunts, in presentation to Product Stewardship Institute, March 23, 2007.

³ "Firms starting to stem wave of toxic tech junk," Austin American-Statesman, Craig Simons, March 5, 2007. <http://www.statesman.com/business/content/business/stories/technology/03/05/5dell.html>

different fees on various VCRs, DVD players, video games, printers, phones, video recorders, mp3 players, etc? All of these products need to be recycled, but applying a separate ARF to all of these seems like a nightmare of fee collection and administration.

Isn't the ARF "the most cost effective way to get money to local governments and recyclers to cover recycling."

This is another claim commonly made by the TV industry. But there are two key problems with this statement:

1. The ARF is more expensive to manage.

A recent MIT study of the existing recycling programs in the US and Canada, found the ARF systems in California and Alberta to be the most expensive to run compared to the EPR costs in Maine and Maryland.⁴

State Program	Management Cost per capita
Alberta (ARF)	\$0.88
California (ARF)	\$0.32
Maine (EPR)	\$0.16
Maryland (EPR)	\$0.04

In the California system, which is run by the state government, **they are spending \$5 million - 16% of their income - in overhead costs.**⁵ It has created a large bureaucracy to collect the fees from all the retailers, and administer reimbursements to recyclers. This doesn't seem very cost effective.

2. The solution is more than just a financing scheme. We are trying to reach TWO goals here – creating more recycling AND creating incentives for product redesign. So we need a system that does much more than just get money to local governments and recyclers – we need a system that motivates changes in these products.

Some TV companies say the ARF can "maintain a level playing field in the market between all manufacturers"

Really, they mean a level playing field between just TV manufacturers, not between TV and computer manufacturers. TVs are historically more expensive to recycle because they are larger than monitors. Yet the fees in many of the proposed ARF bills vary little between computers and TVs. In California, the fee paid upon purchase of a TV or monitor depends on the size:

Screen Size (diagonally)	California ARF- Fee
> 4 inches < 15 inches	\$6
15 inches < 35 inches	\$8
35 inches +	\$10

So this means that consumers pay an \$8 fee for most computer monitors, but then only two dollars more for the enormous TVs currently being sold, many of which are between 40 and 60 inches. The cost difference between recycling a 17-inch monitor and a 60 inch television are much more than two dollars. So this approach actually creates an un-level playing field between TV and computer makers.

⁴ "A Comparison of North American Electronics Recycling Systems" by Jeremy Gregory and Randolph Kirchain, *MIT Materials Systems Laboratory*, October 2006.

⁵ IBID Page 11.

Free riders. So to focus on what the TV companies really mean – a level playing field between TV companies – the TV manufacturers are concerned about whether the new companies (who have no old products in the waste stream coming back for recycling) can undercut them – the older companies – who do have old products coming back. Or they say these new “free riders” will disappear (or reconfigure themselves) before they end up paying to recycle their products. They argue that the ARF works better, because it applies equally to old and new companies.

But the producer responsibility model can also maintain a level playing field, between all manufacturers, with these mechanisms:

Market Share: Some states are considering using market share to determine companies’ recycling liability. This is the language in the model bills developed by the northeast states, and the Midwest states, and in the bill passed by the Minnesota legislature in May 2007. The market share approach requires all companies to contribute to recycling, based on current sales, not based on how much product is coming back for recycling.

Special Requirements for New Entrants. States can set up their program so that both new entrants and established manufacturers both have obligations, even if they are using the return share methodology. For instance, Washington State requires “new entrants” into the market to pay into the standard (collective) recycling program.

Financial Guarantee: Another approach is to require a financial guarantee of the new entrants, so that they are paying for their recycling obligation up front, even if they cease business. This is like an insurance policy against future default. This approach is being used in Europe.

Which System Is Better at Promoting Reuse?

In California, the ARF system seems to work against reuse – since recyclers can get a lot of money for recycling products, they have no financial incentive to reuse them, so working products end up being recycled instead of reused. Local reuse organizations in California have said that they are seeing their donations decrease as a result of the California ARF system.

The EPR bills need to include reuse as a priority, and include measures to promote it, like giving extra “credit” for manufacturers reusing products towards their overall recycling obligations. Either approach should offer special incentives to promote reuse.

Which System Is Better at Promoting Green Design?

Because the EPR system makes manufacturers financially responsible for recycling costs, this system provides an incentive for companies to redesign their products to be more recyclable (and cheaper to recycle). Since the ARF system doesn’t involve the manufacturers, it provides no motivation towards green design. This is our primary reason for supporting the EPR model.

What if one state passes a bill, and the neighboring states don’t? Will this lead people to shop “over the border?”

If one state passes an ARF, and the state next door has no ARF, it might lead consumers to cross the border to shop (just like the current situation with states with no sales tax next to

states with sales tax.) But under the EPR system, manufacturers tell us they actually do their pricing and distribution on more of a regional basis. So if one state passes an EPR bill, probably the state next door is already seeing the same pricing levels for the covered products.

Which System Is Better at Consumer Education?

Either system can include a strong consumer education component. Bills need to include language to require specific education measures, and it is appropriate for government to play a leading role in educating consumers.

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