

Regulating Electronic Waste in New York City

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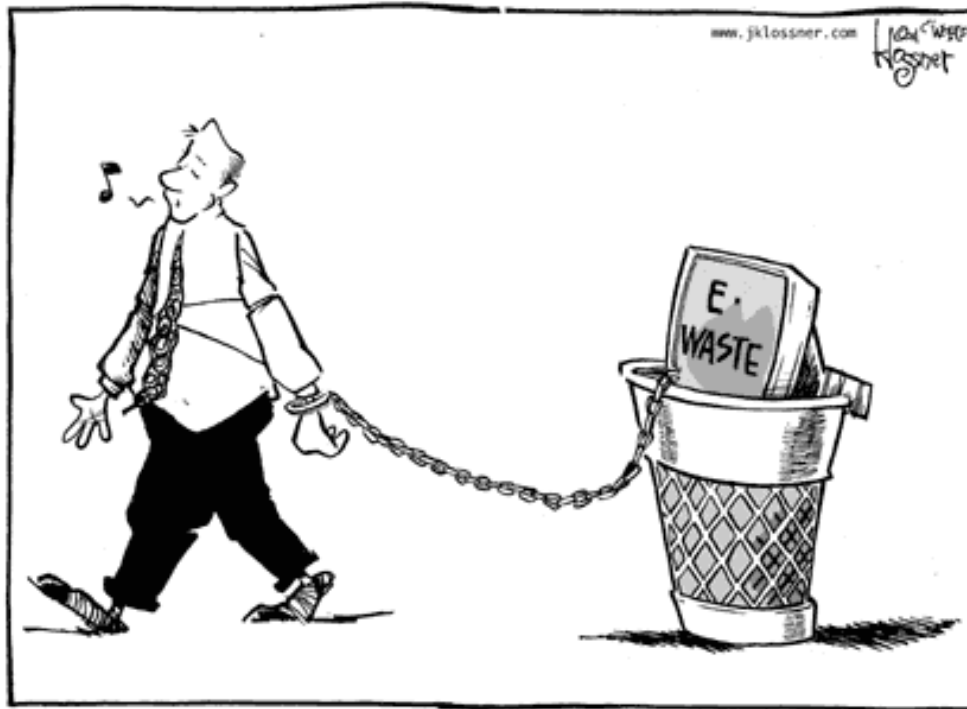


A report for the Natural
Resource Defense Council

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Natural Resource
Defense Council

The Electronic Waste
Problem

Policy Solutions

Preliminary Results

Who is our Client?

NRDC

- Natural Resource Defense Council
- A national, non-profit organization founded in 1970
- \$60 million budget, 1.2 million members
- Its mission is to “safeguard the Earth: its people, its plants and animals and the natural systems on which all life depends”

Supports legislation regulating electronic waste in New York City



What is Electronic Waste?

- Any electronic product that has reached its end-of-life
 - Household appliances
 - Personal computers, laptops
 - Televisions, computer monitors
 - Cell phones, batteries
- Electronic waste contains chemicals that present environmental and health hazards
- One of the fastest growing components of the waste stream



Why is E-Waste a Problem?

- More than 56 million computers become obsolete in the U.S. each year
- Over 2.2 million tons of e-waste are discarded in the U.S. each year
- 70% of heavy metals in landfills come from electronic waste
- 420 tons of New York City's weekly waste comes from electronics



What are the Policy Approaches?

Extended Producer Responsibility (EPR)

- Producers are responsible
 - materials & design
 - recovery & recycling

Advanced Recovery Fee (ARF)

- Consumers are responsible
 - recovery & recycling



What are the Benefits of EPR?

Creates incentives for:

- Less municipal waste
- More efficient recycling systems
- Safer materials used
- Fewer materials used
- Longer life of products



What is our Role?

- To provide analysis for NRDC that supports EPR policy in New York City

Research strategy:

- Analysis of existing extended producer responsibility programs
- Study of stakeholder perspectives
- Implementation options



Case Studies

- Case Studies
 - Maine
 - California
 - Washington
 - Massachusetts
 - European Union
 - Japan
- Voluntary manufacturer programs
- Take-back programs for other products



Case Studies

Aspects for examination:

- Covered products
- Financial responsibility
- Program administration
- Cost of programs
- Measurements of success



Stakeholders

Stakeholders to interview:

- Manufacturers
- Retailers
- Refurbishing companies
- Recyclers
- New York Sanitation Department
- Consumer rights' groups
- Environmental groups
- State and federal regulators
- Academic community



Stakeholders

Questions to address:

- Knowledge and opinion of EPR policy
- Effects on New York City Sanitation Department and city government
- Receptivity to EPR policy



Options Analysis

- Manufacturer compliance scenarios
 - Collection, recycling and disposal
- Assigning responsibility
 - Individual versus collective
 - Historical and orphan waste
- Performance management
 - Measuring success
- Additional issues
 - Internet sales
 - Disposal bans



Preliminary Results

- First city-level program
- Combined policy approaches
- Assigned responsibility could vary widely
- Unknown outcomes



Questions?



Picture Sources

Slide 1: http://www.svtc.org/cleancc/cc_graphics/electroscrap.jpg

Slide 2: www.jklossner.com/computerworld/images/Ewaste.gif

Slide 4: Tanskanen, P. and Takala, R. *A decomposition of the end of life process*, Journal of Cleaner Production. 2005. 1-7.

Last Slide: <http://pubs.acs.org/hotartcl/est/00/apr/hanis.html>