

Electronics Recycling Trends

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Number of PCs World-wide

- Gartner Research Firm determined:
 - 1 billion total PCs produced as of July 2008
 - 2 billion total PCs to be produced by 2014!







Plastics



PCBs



Aluminum



Copper





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Science News

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Developing World Will Produce Double the E-Waste of Developed Countries by 2016, Study Predicts

ScienceDaily (Apr. 29, 2010) — Developing countries will be producing at least twice as much electronic waste (e-waste) as developed countries within the next 6-8 years, according to a new study published in ACS' semi-monthly journal *Environmental Science & Technology*. It foresees in 2030 developing countries discarding 400 million -- 700 million obsolete personal computers per year compared to 200 million -- 300 million in developed countries.

See Also:

- Matter & Energy**
 - Energy Policy
 - Technology

Earth & Climate

Eric Williams and colleagues cite a dramatic increase in ownership of PCs and other electronic devices in both developed and developing countries. At the same time, technological advances are shrinking the lifetime of consumer electronics products, so that people discard



Levels of discarded computers and other electronic waste will double in developed countries within the next 6-8 years. (Credit: iStockphoto)

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Recycling Ma

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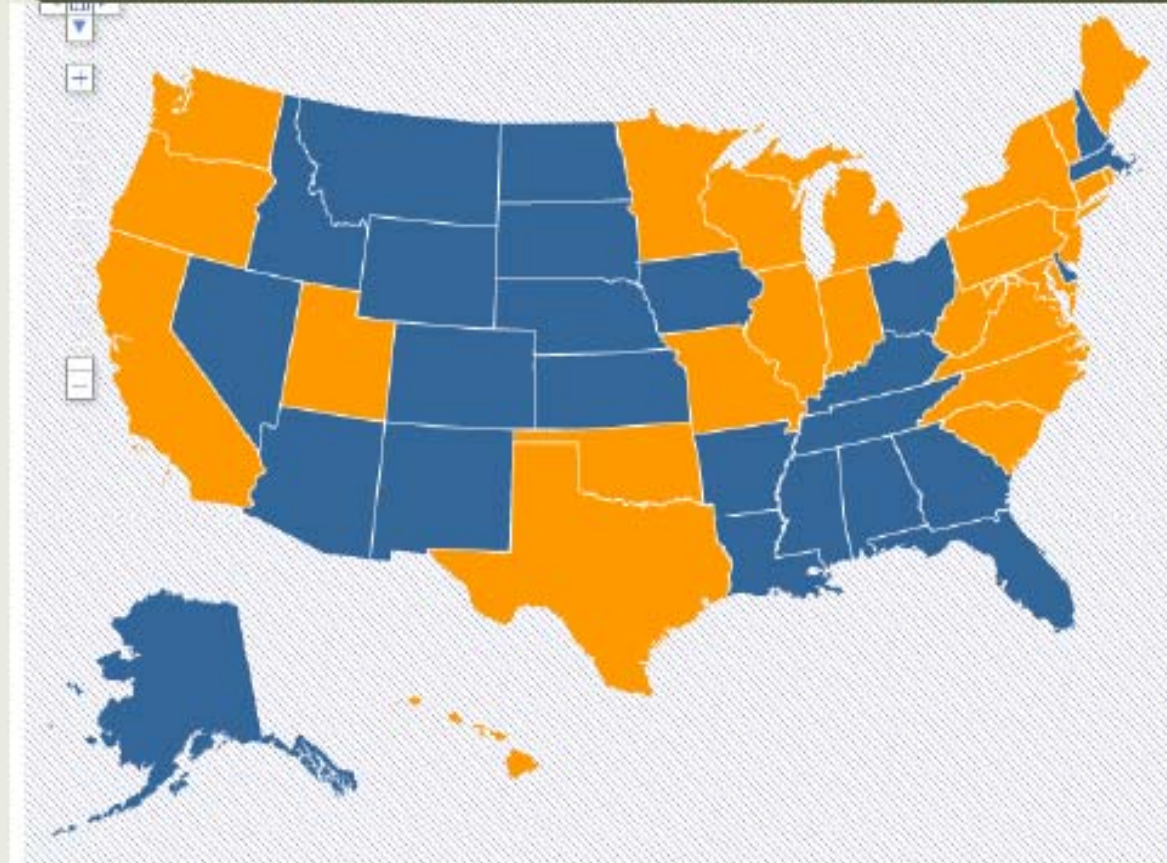
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E-Waste Take-Back Laws



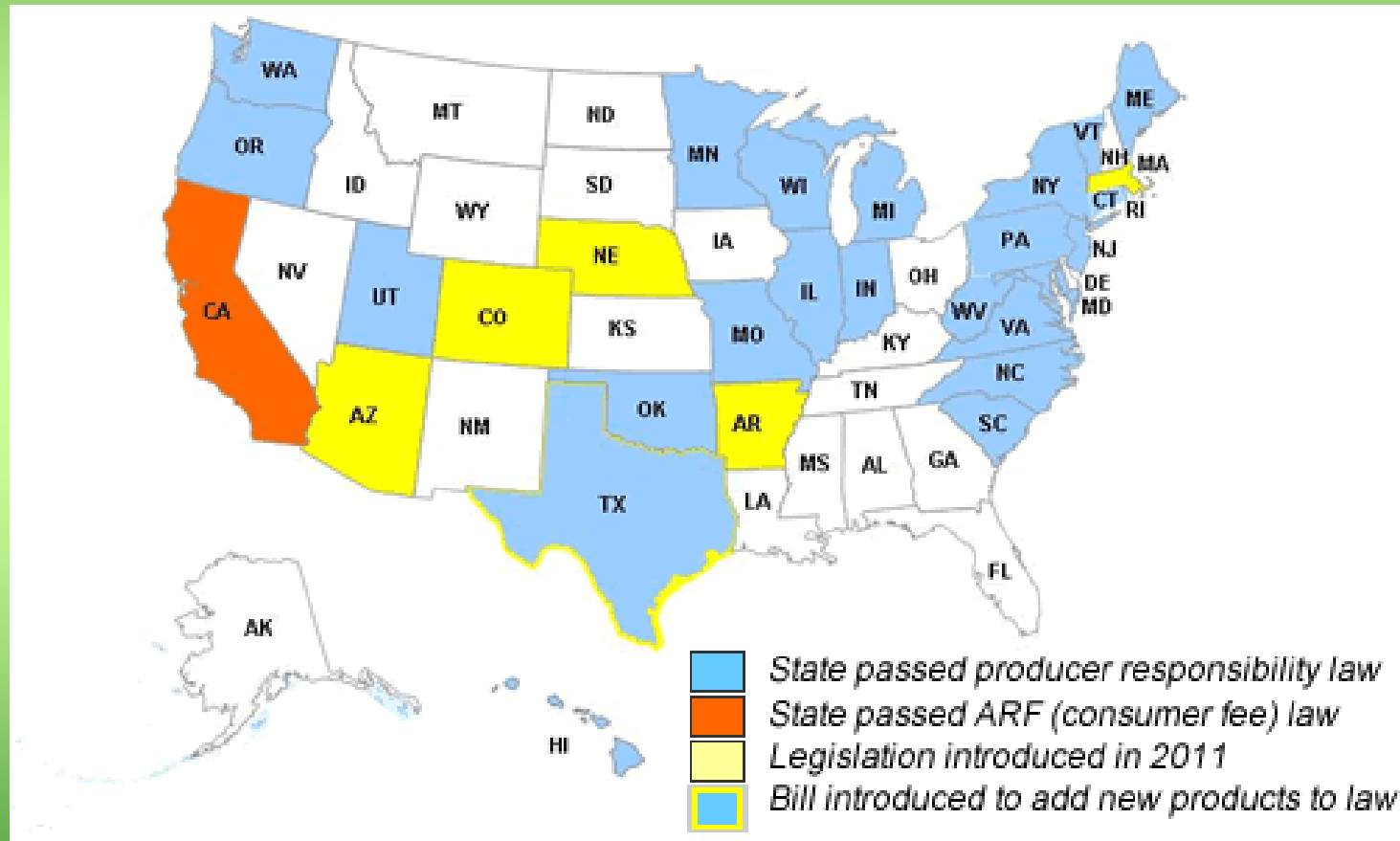
Orange states have electronics recycling laws

National Recycling Council © May 2011

Electronics Recycling Coordination Clearinghouse



State Legislation



Key Differences in Laws

- Product scope (covered devices)
- Covered entities
- How programs are financed
- Who is responsible for providing collection opportunities
- Goals
- Disposal Bans



State	Year	Year	Monitors	TVs	Computers	Laptops	Printers	Other Products See key above	TOTAL LBs COLLECTED	Notes	# Reg- Mfgs	Population ⁴	Disposal Ban Effective Date	# sites	People per site ²	Lbs per capita ³	
North Carolina	Year 1	2010	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	not covered	Keyboards, mice	9,148,000		78	9,535,483	7/1/2011			.096	
Oklahoma	Year 1	2009	<input checked="" type="checkbox"/>	not covered	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	not covered		817,277			3,687,050	No ban			0.22	
	Year 2	2010	<input checked="" type="checkbox"/>	not covered	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	not covered		Reports due March '10			3,751,351					
Oregon	Year 1	2009	6,144,774	10,817,023	2,031,941	Reported under computer	not covered		18,993,738			3,825,657				4.96	
		%	32.40%	57.00%	10.70%		not covered										
	Year 2	2010	6,520,439	14,972,860	2,897,973		not covered		24,149,774			3,825,657	1/1/2010	264	14,491	6.31	
	%	27.0%	62.0%	12.0%	not covered												
Rhode Island	Year 1	2009	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	not covered		2,823,369			1,053,209	1/1/08			2.68	
	Year 2	2010	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	not covered		Not available			1,052,567					
Texas	Year 1	2009	<input checked="" type="checkbox"/>	not covered	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	not covered		15,247,207			24,782,302				0.62	
	Year 2	2010	<input checked="" type="checkbox"/>	not covered	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	not covered		24,370,894			25,145,561				0.97	
Virginia	Year 1 partial	Jul - Dec 2009	<input checked="" type="checkbox"/>	not covered	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	not covered		3,782,500	Actual 2Qs	37	7,882,590				0.96	
							not covered		7,565,000 ⁴	Annualized		(6 mos x 2)					
	Year 2	2010	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	not covered		4,439,446 ³			7,882,590				0.56	
Washington	Year 1	2009	12,287,734	22,350,612	3,910,328	Reported under computer	not covered		38,548,674	Actual		6,664,195				5.78	
		%	31.90%	58.00%	10.10%		not covered						NA				
	Year 2	2010	10,738,240	24,969,639	3,759,919		not covered		39,467,798	Actual			6,664,195		280	23,801	5.92
	%	27.20%	63.30%	9.50%	not covered												
West Virginia	Year 1	2009-10										1,819,777					
Wisconsin	Year 1	2010	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	D, F, K, M, V	24,000,000		69	5,686,986	9/1/10	329	17,286	4.22	
Other States Which Began Collection in 2010 or scheduled to begin collection in 2011 or later. (No data available yet)																	
Connecticut	Year 1	2011	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				Data in 2012	60	3,518,288	1/1/2011	123	28,604		
Indiana	Year 1	Apr 2010 - Mar 2011	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				Later in 2011			1/1/2011				
Michigan	Year 1	Apr 2010 - Mar 2011	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				Later in 2011	27						
Missouri	Year	2010-11	<input checked="" type="checkbox"/>	not covered	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				Later in 2011							
New Jersey	Year 1	2011	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				Data in 2012			1/1/2011				

State Harmonization

- Electronics Recycling Coordination Clearinghouse (ERCC)
 - National Center for Electronics Recycling
 - Northeast Recycling Council

www.electronic recycling.org



State Assistance

- North Carolina

- www.p2pays.org/electronics

South Carolina

- www.scdhec.gov/environment/lwm/recycle/e-cycle/index.htm

Kentucky

- www.waste.ky.gov/RLA/recycling/pages/electronicsrecyclingopportunities.asp

[X](#)



What is EPA Doing?

- Plug-in to eCycling
 - www.epa.gov/plugin
- Federal Electronics Challenge (FEC)
 - www.federalelectronicschallenge.org
- State Electronics Challenge
- Promoting Electronics Certification





Thank You

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