



Overview of the Oregon Electronics Recycling Law

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Meeting

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Outline

- Introduction
- Policy Context
- Oregon Electronics Recycling Law
- Program Performance
- Program Evaluation
- Future Directions
- Related Policy Development in Oregon
- Questions



Introduction

- Oregon Department of Environmental Quality (DEQ)
 - State agency responsible for protecting and enhancing Oregon's water, air and land quality
- Solid Waste/Materials Management Program at DEQ
 - Develops statewide plan for sustainable materials management
 - Develops policies and programs to reduce impacts of materials and products over full life cycle - focus on most significant impacts
 - Establish goals & measures; support & perform research; develop & implement incentive, product stewardship, waste reduction & waste management programs; provide education & information; and collaborate with diverse public & private partners
- Local governments
 - Implement waste prevention, recycling, waste collection and disposal programs; conduct education and outreach; collaborate



Policy Context

- Strive to reduce impacts of materials and products over full life cycle
- Pursue producer responsibility approach
- Participated in national/regional dialogs on producer responsibility – PSI, NWPSI, NEPSI, others
- Convened stakeholder dialogs on producer responsibility models for e-waste in OR (~2001-2007)
- OR Electronics Recycling Law enacted in 2007
 - Unanimous with strong support from diverse stakeholders
 - First producer responsibility law for Oregon
- Law amended in 2010 and 2011 (fix mistakes, add products)



Oregon E-Cycles - Overview

- Manufacturers provide free, convenient, statewide recycling of computers, monitors & TVs
 - Printers & computer peripherals added in 2015
- Manufacturers register brands & join a recycling program
 - State contractor-run program or a manufacturer-run program
- Recycling programs operate statewide collection & recycling networks under plans approved by DEQ
 - Participating manufacturers fund recycling programs
- DEQ administers program, oversees compliance & evaluates performance
 - Manufacturers pay registration fees to cover DEQ costs (excluding state contractor recycling program costs)



Oregon E-Cycles – Program Plans

- Recycling program plans are updated annually and must:
 - Meet minimum convenience standards for collection sites and services (events, mail back)
 - Collect all types/brand of devices from all entities without charge (limit on large entities)
 - Ensure collectors, transporters, recyclers meet environmentally sound management practices
 - Verify compliance from collection through final processing
 - Promote program and collect devices statewide, year-round
 - Sample returns
 - Submit quarterly/annual reports to DEQ



Oregon E-Cycles – Performance Goals

- DEQ determines statewide collection goal (wt) each year
- DEQ assigns each manufacturer a portion of total weight as *minimum* recycling obligation
 - Based on return share for IT manufacturers, market share for TV manufacturers
- Recycling programs must collect *at least* total return share weight of participating manufacturers
 - Pay penalty for amount under-collected
 - Earn credits for collection over minimum
 - May sell or apply credits in future years for up to 15% of annual obligation
- Recycling programs must continue promoting and collecting year-round – even after goals met

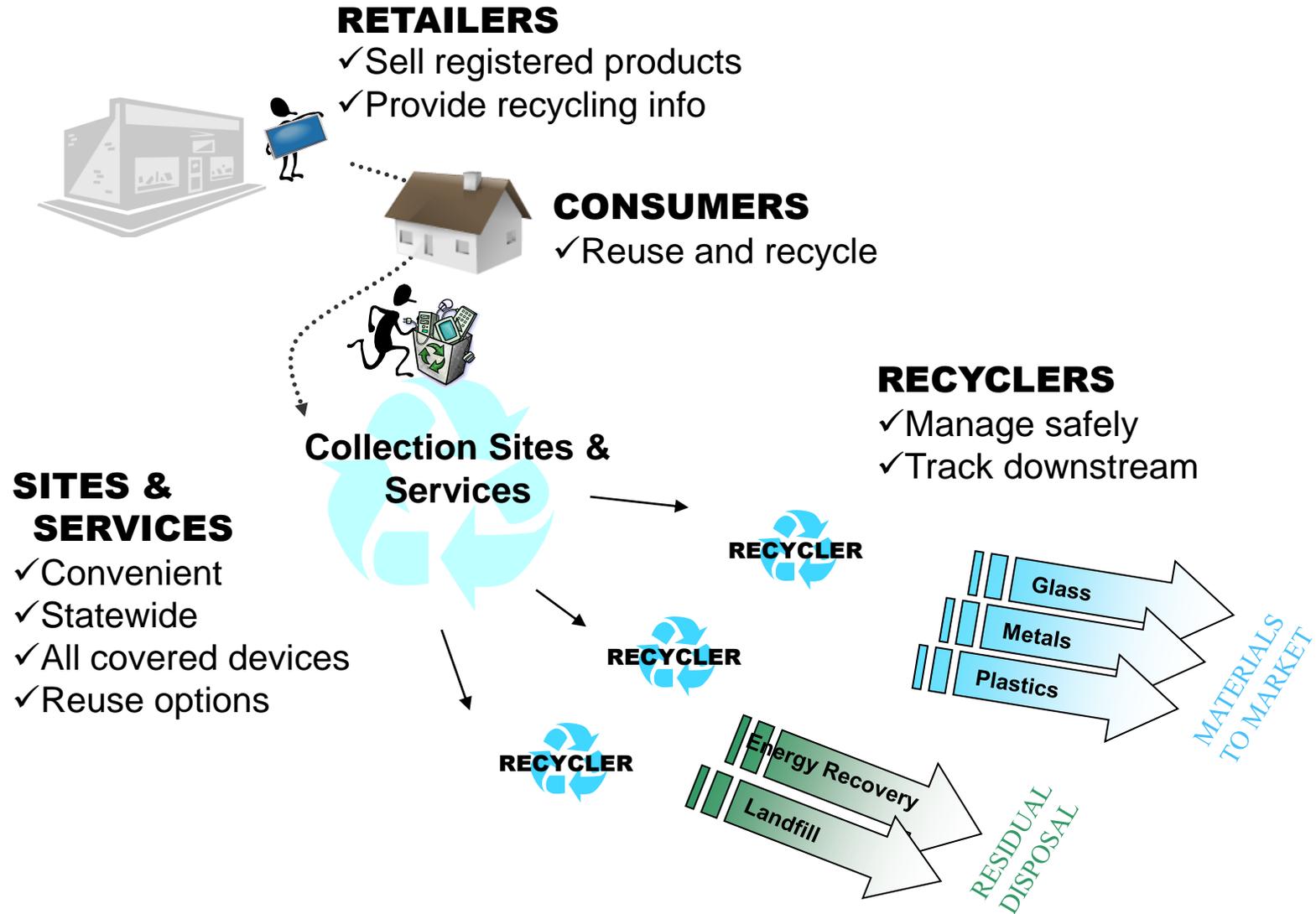


Oregon E-Cycles – Other Provisions

- Sale of noncompliant brands is prohibited
 - Brand must be affixed to device
 - Brand manufacturer must be on DEQ’s “compliant” list
- Retailers must inform consumers of recycling opportunities
- Disposal of computers, monitors and TVs is banned



Oregon E-Cycles Services Provided





Oregon E-Cycles Program Responsibilities

DEQ

- ✓ Registers manufacturers
- ✓ Sets recycling goals & obligations
- ✓ Approves recycling program plans
- ✓ Oversees compliance
- ✓ Educates public

Manufacturers

- ✓ Register with DEQ
- ✓ Join a recycling program

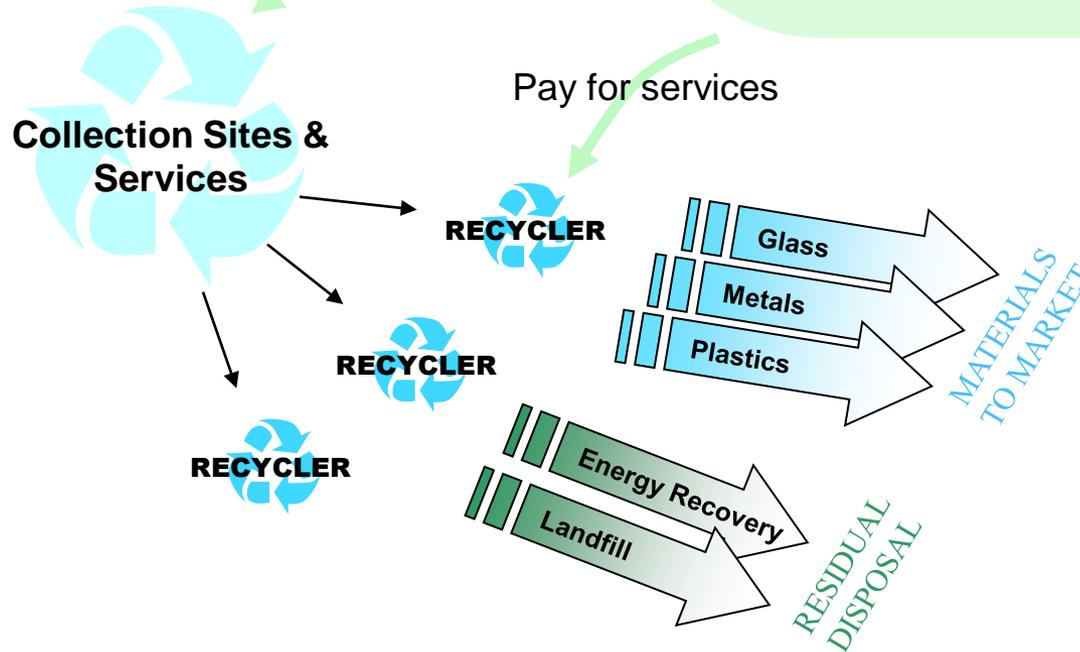
RECYCLING PROGRAMS

Manufacturer Programs

- ✓ Collect statewide
- ✓ Collect/reuse/recycle safely

State Contractor Program

- ✓ Promote programs
- ✓ Meet recycling goals
- ✓ Report to DEQ
- ✓ Fund programs





Oregon E-Cycles – Stakeholder Involvement

- Strong stakeholder involvement key to success – from adoption through implementation
 - Electronics manufacturers, collectors, recyclers, reuse organizations, retailers, solid waste industry, environmental groups, local government, NGOs
- Worked extensively with stakeholder on start up
- Continue standing and ad hoc workgroups
 - Focus on issues, oversight, transparency, legislation, rulemaking, program improvements and updates
- Meet regularly with recycling program representatives
- Stakeholder involvement valuable part of OR culture
 - Improves program and helps foster strong partnerships, cooperation and ongoing support



Oregon E-Cycles Program Performance

	2009	2010	2011	2012	2013 Projected	2014 Projected
Recycling and Reuse						
<i>Statewide recycling goal (pounds)</i>	12.2 million	21.5 million	23.0 million	27.1 million	28.6 million	29.2 million
<i>Total recycled (pounds)</i>	19.0 million	24.2 million	25.9 million	26.7 million		
<i>Per capita recycled (pounds)</i>	4.96 lbs	6.3 lbs	6.7 lbs	6.9 lbs	7.3 lbs	7.4 lbs
<i>Units reused</i>	25,900	38,000	36,007	20,390		
Energy Savings/ Greenhouse Gas Reductions						
<i>Energy savings (BTUs)</i> <i>(equivalent gallons of gas)</i>	290 billion (2 million)	370 billion (3 million)	390 billion (3 million)			
<i>GHG emission reductions (metric tons CO₂E)</i> <i>(equivalent tailpipe emissions, cars/year)</i>	22 ,000 (4,500 cars)	28 ,000 (5,700 cars)	30,000 (6,100 cars)			
Recycling Programs						
<i>Plans</i>	3 mfr + 1 state	3 mfr + 1 state	3 mfr + 1 state	3 mfr + 1 state	2 mfr + 1 state	2 mfr + 1 state
<i>Participating manufacturers</i>	176	162	169	159	156	
Services						
<i>Collection sites</i>	~ 220	~240	~230	~260	289	
<i>Collection events</i>	22	17	13	6		
<i>Recyclers</i>	6	6	8	7	7	



Program Evaluation

- Significantly expanded opportunities to recycle/reuse e-waste
- Increased amounts reused and recycled
- Shifted responsibility and costs to producers, sellers & users vs. local government
- Increased e-waste processing capacity in OR, WA – new jobs and economic benefits
- More processors are eStewards/R2 certified
- Impacts on recyclers are mixed (recycling programs select service providers and not all can participate)
- Few products are covered (legislation needed to add products)



Program Evaluation (cont.)

- Relies heavily on recycling programs for oversight of service providers (programs have primary responsibility)
- Oversight of retailer compliance is weak
- Lacks incentives to improve product design
- Lacks incentives for reuse
- Environmental standards for E-Cycles should apply to collectors and recyclers outside of program too
- Data management system costs are significant (register/track brands, invoice/collect fees, track manufacturer compliance)
 - New on-line, multi-state registration coordinated by NCER will add efficiencies for manufacturers and states



Future Directions

- Add printers, peripherals in 2015 – perhaps other new devices currently defined as CEDs (e-readers, games)
- Continue ongoing improvements with stakeholders and take advantage of new opportunities
- *Considerations* for amending Electronics Recycling Law:
 - Change method for setting recycling obligations (e.g., move to market share, move to units vs. weight)
 - Expand products covered
 - Include RoHS requirements
 - Explore incentives for product design and for reuse
 - Adopt framework legislation
 - Reduce DEQ involvement (e.g., in registering manufacturers)



Related Policy Development in Oregon

- Oregon Bottle Bill (1971) (deposit/refund system for beverage containers)
- Paint Product Stewardship Law (2009)
 - Eco fee model
 - Stewardship organization operates under plan approved by DEQ
- DEQ report to legislature: “Recommendations for Product Stewardship in Oregon” (2010) (stakeholder consultation outcome)
- “Materials Management in Oregon: 2050 Vision and Framework for Action” (2012)
 - Describes vision and framework for sustainable materials management
 - Considers opportunities to reduce impacts over full life cycle of products
 - » Shifts from end-of-life focus to identifying most significant impacts and actions to reduce them
 - Producer responsibility approach integral



Questions

- For more information:

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