



IERCE 2011



Understanding and Complying with State Recycling Laws

Jason Linnell, National Center for
Electronics Recycling and
Electronics Recycling Coordination
Clearinghouse (ERCC)

About Us

National Center for Electronics Recycling:

- Non-profit 501c3
- Located in Parkersburg, WV
- Involved in Federal, State & Association Projects
- Conduct Research, Run Collection Programs
- Partner with NERC on Electronics Recycling Coordination Clearinghouse
- Manage Oregon State Contractor Program
- Our Mission: Dedicated to the development and enhancement of a national infrastructure for the recycling of used electronics in the U.S.



Agenda



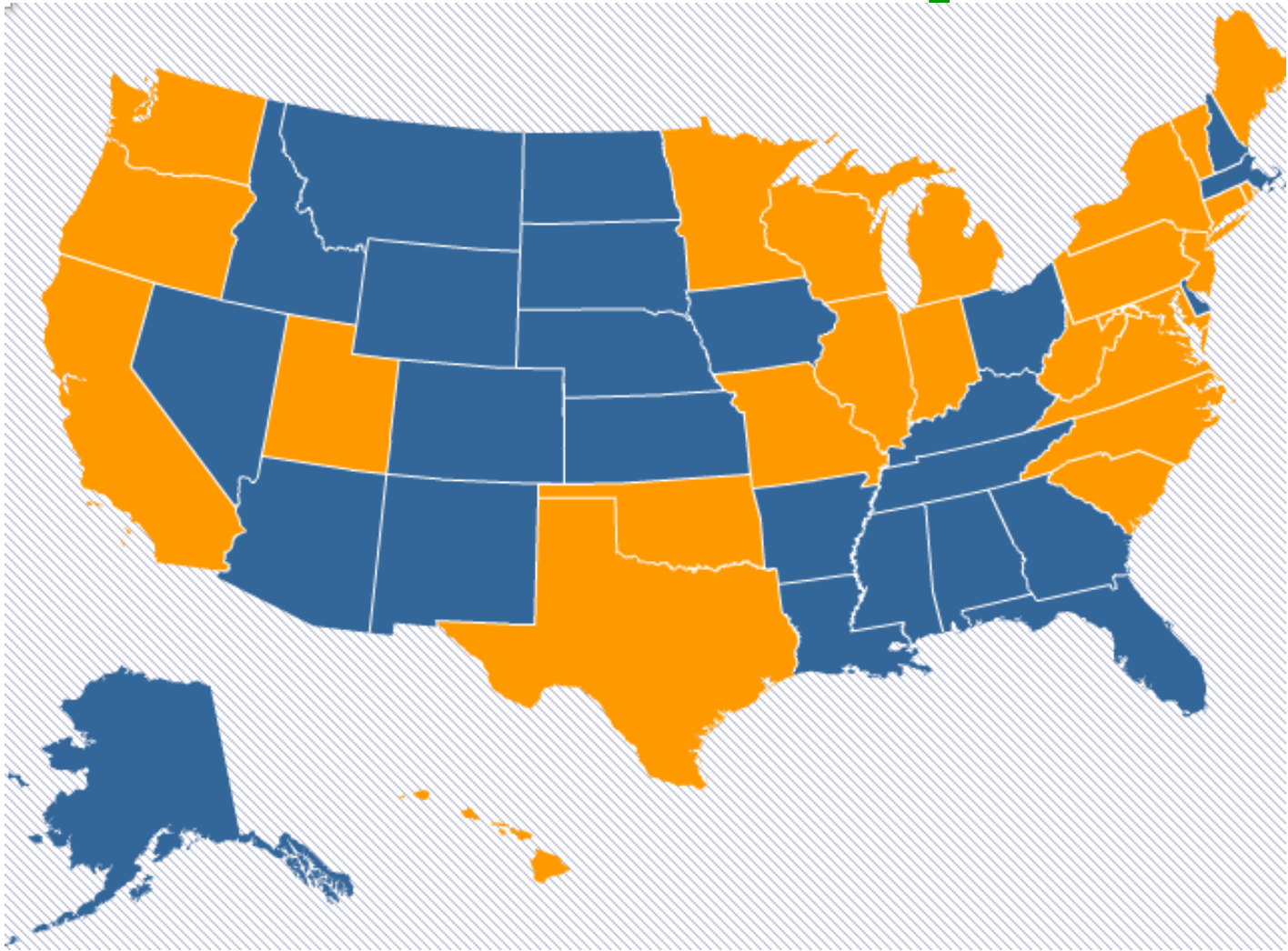
- **4:30 – 5:00 PM Introductions and Overview (Jason Linnell, NCER)**
 - Overview of State Law History, Where We Stand Today
 - Grouping State Laws
- **5:00 – 5:30 PM Responsibilities as Manufacturer, Recycler, and other Entity**
 - Key Differences in State Groupings
 - Impacts of Policy Differences
- **5:30 - 5:40 PM Break**

Agenda



- **5:40 - 6:00 PM Practical Experience in Complying, Legal Implications for Not – (Holly Evans, Strategic Counsel)**
 - Determining coverage, obligations, plans for compliance
- **6:00 – 6:10 PM Lessons from State Manager Perspective**
- **6:10 – 6:30 PM Recap, Questions and Answers**

States With E-Scrap Laws



States highlighted in orange have some type of electronics recycling law

Overview of Laws



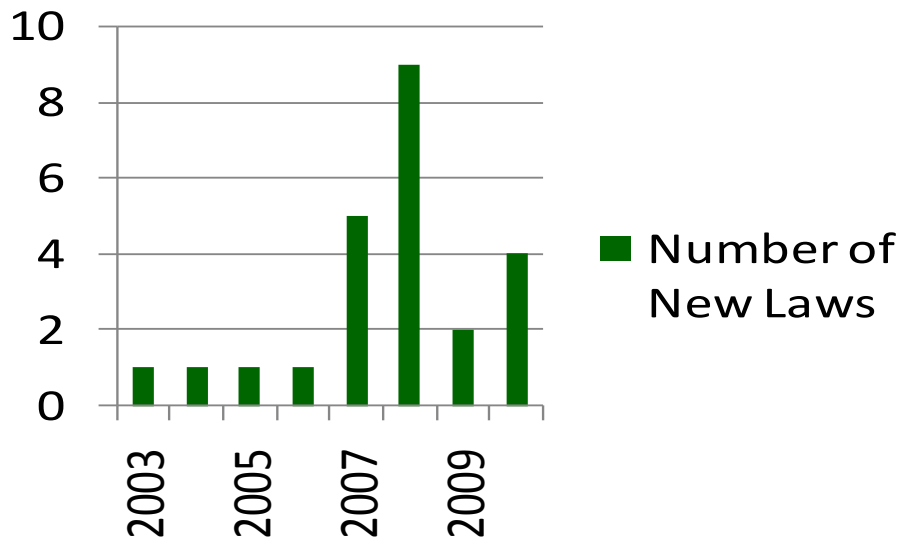
- 25 total laws
 - Half of U.S. States
 - 66% of U.S. population will be covered by 1/1/12
- 21 in effect as of 4/1/11
 - Oldest law entering 7th year
 - Many in 1st-3rd year of operation

25 & Counting, But Slower Pace

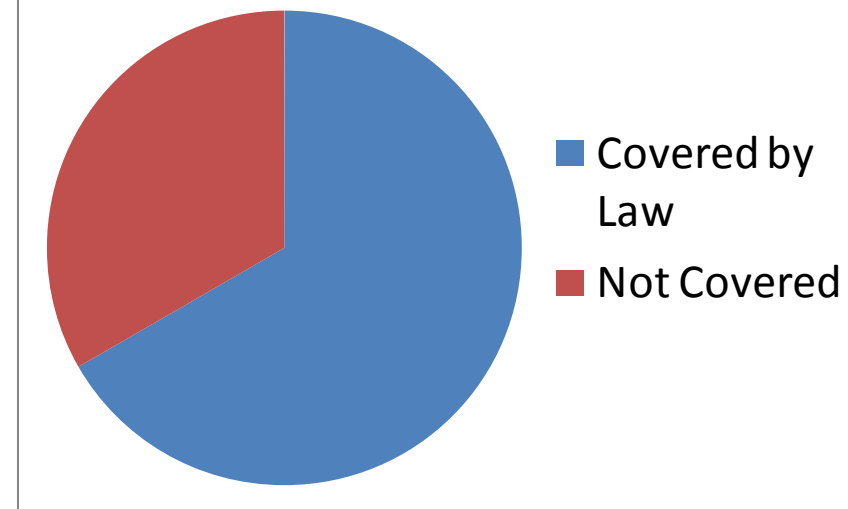
- 2003: California
- 2004: Maine
- 2005: Maryland
- 2006: Washington
- 2007: Connecticut, Minnesota, Oregon, Texas, North Carolina

- 2008*: New Jersey, Oklahoma, Virginia, West Virginia, Missouri, Hawaii, Rhode Island, Illinois, Michigan
- 2009: Indiana, Wisconsin
- 2010: Vermont, South Carolina, New York, Pennsylvania
- 2011: Utah

Number of New Laws



Percentage of Population



How programs are paid for



- Advanced recovery fee – CA only
- Annual fee or own program– MD & WV only
- Return share – WA only*
- Market share - 5
- Return & market share - 8
- Run their own programs – 5

Types of Financing

ARF - Electronic Waste

Recycling Fee, assessed on the sale of covered electronic products

FEE - Manufacturer

Annual Registration Fees (can be significantly reduced by establishing an approved take-back program)

SHARE - Manufacturers

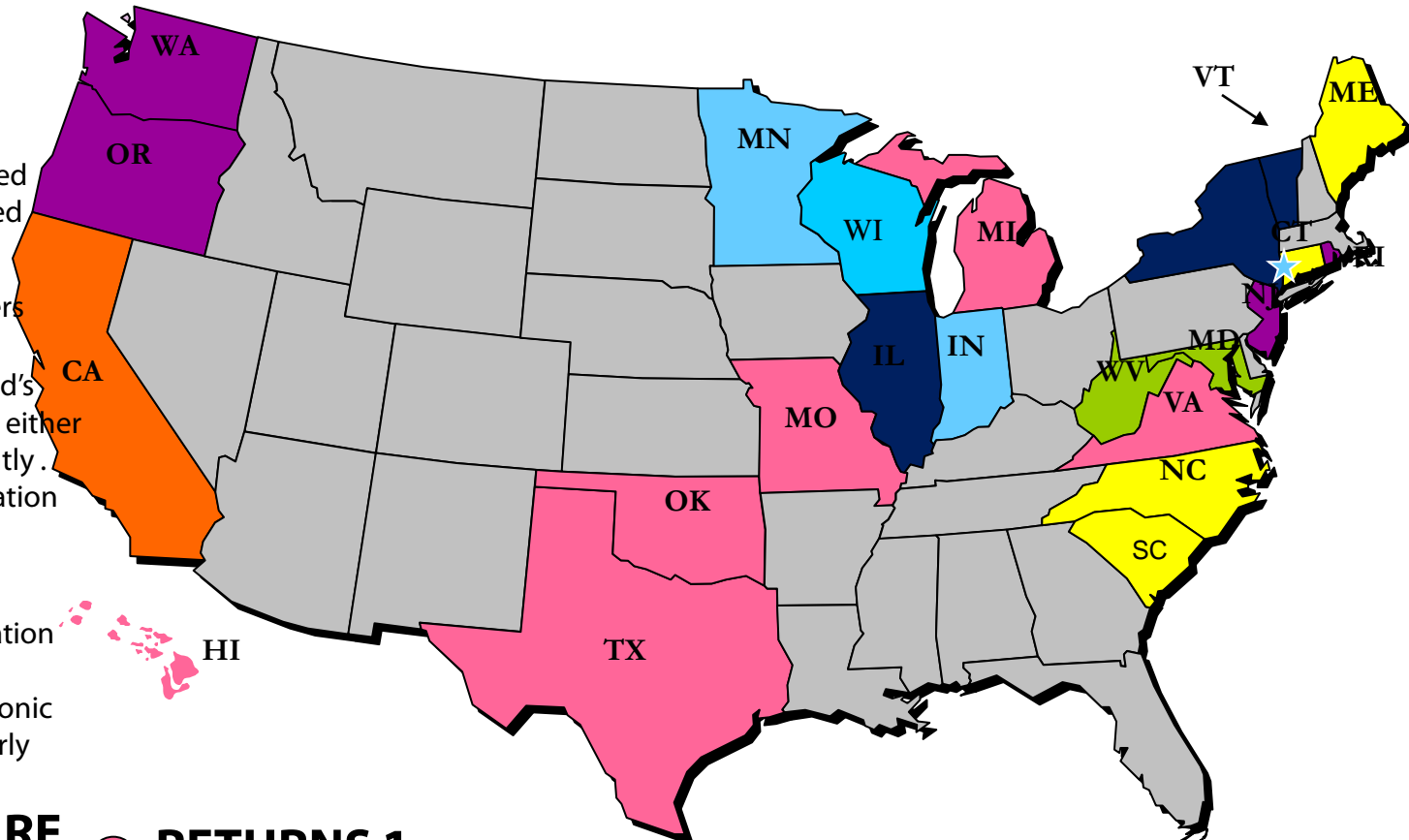
must finance a program to collect & recycle their brand's share of covered products, either collectively or independently. All but WA divide TV obligation by market share

LBS. SOLD

Manufacturer pays registration fee and for collection and recycling of covered electronic devices based on their yearly sales to households

LBS. SOLD SHARE

Manufacturers are assigned a market share percentage based on total weight sold into the state. A separate per capita goal is used for collection targets. (IL uses return share for IT devices)



RETURNS 1 - Manufacturers must develop and implement their own recycling programs for their own returned products. MI has voluntary market weight-based goal

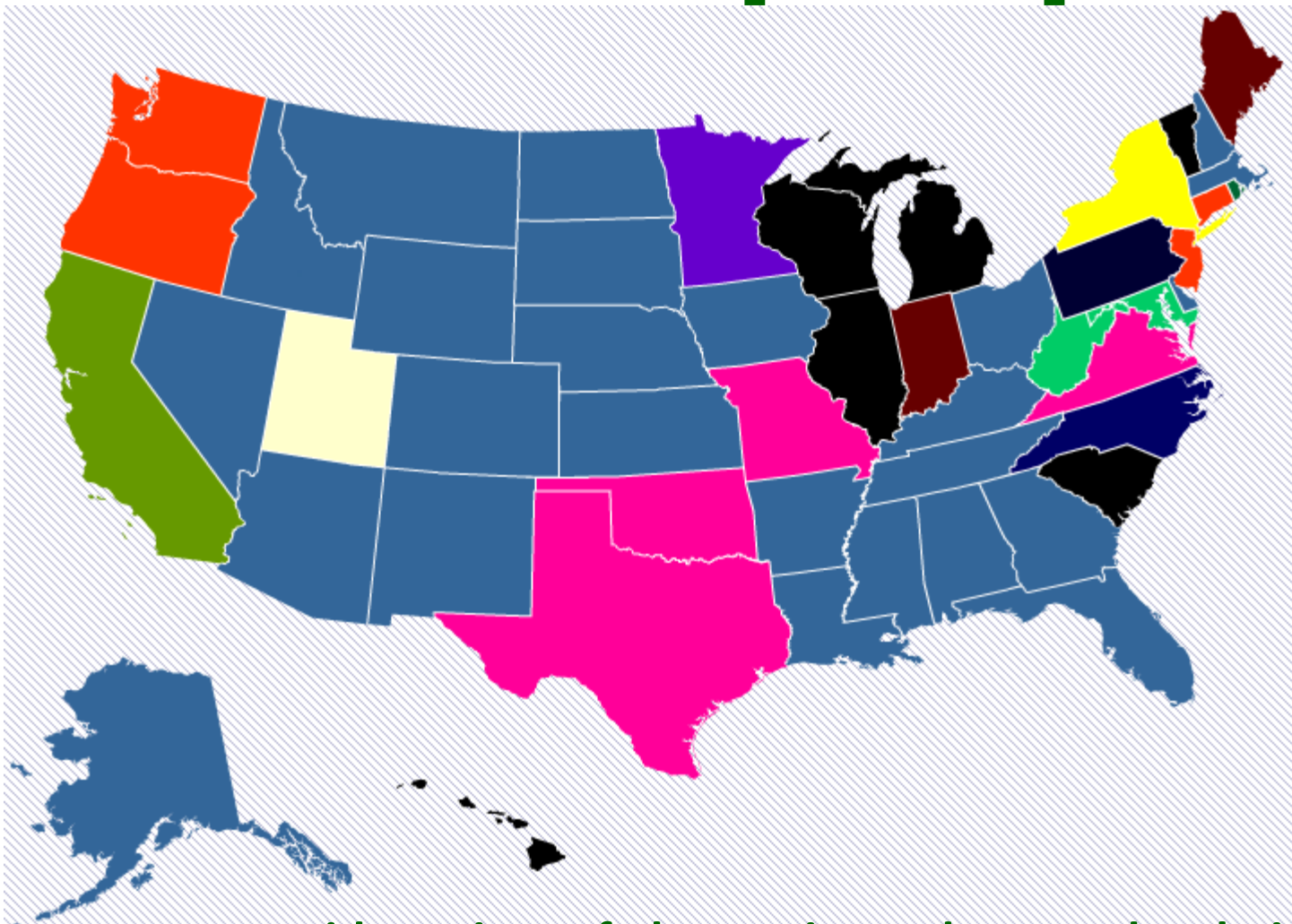
RETURNS + TV MARKET SHARE - IT Manufacturers pay for costs of their own branded products collected plus a pro rata share of orphan products. TV manufacturers pay based on their market share percentage of all TVs returned.

Covered Products



- **Minimum: Monitors, Laptops**
- **Maximum: + TVs, Computers, Printers, Keyboards, Mice, Small Servers, Personal Audio, Mobile Phones, VCR/DVD, DVRs, cable/satellite boxes**
- **Most in between with “big five” TVs, desktops, laptops, monitors, and printers**

Product Scope Map



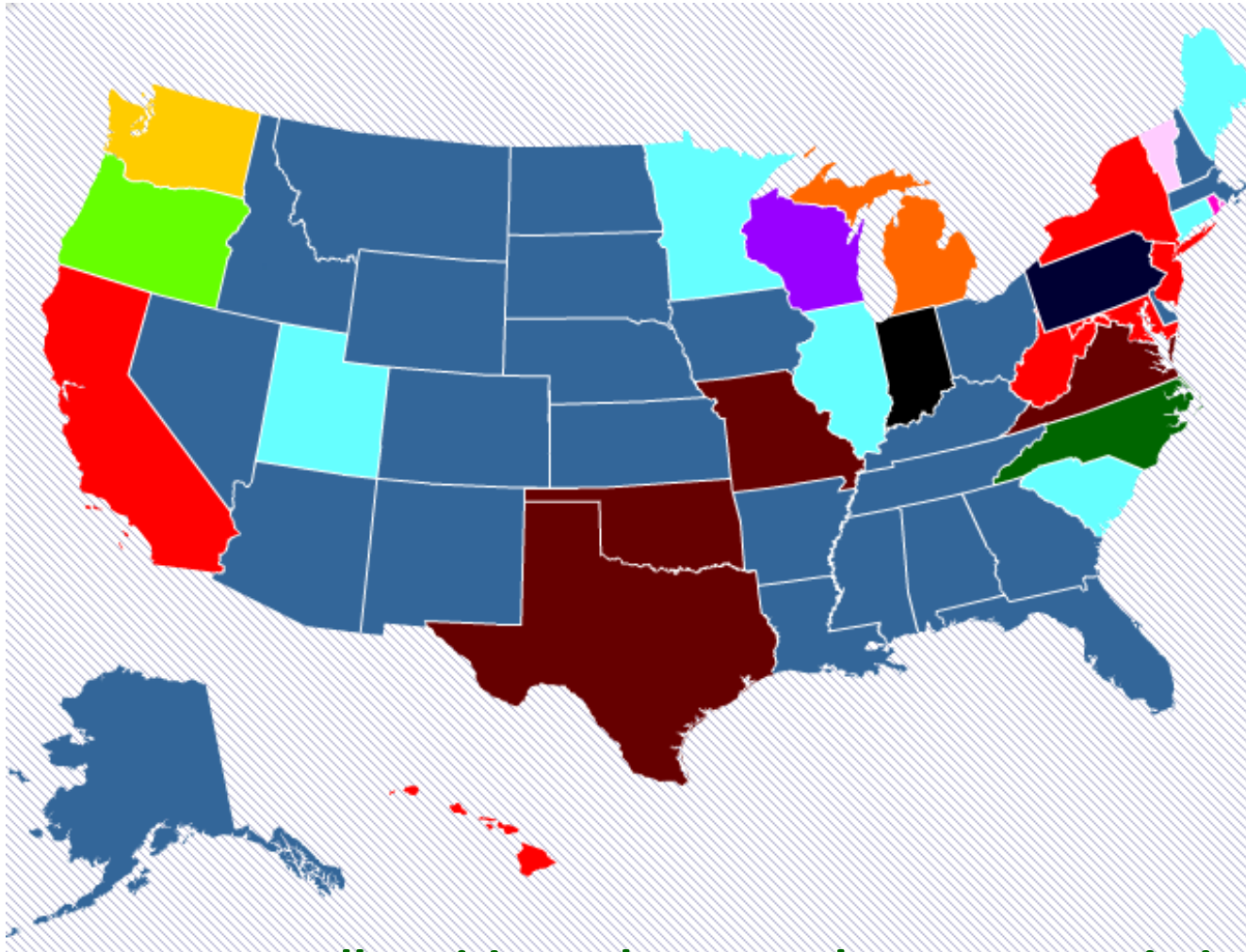
Some states cover a wide variety of electronic products under their law. Others are more narrow and may only include laptop computers and monitors. Go to ecycleclearinghouse.org for more details.

Covered Entities



- Who can use (free) recycling system?
- All Cover Households/Consumers, then variations on:
 - Small businesses – fewer than 10 or 50
 - Schools – K-12 or all
 - Non-profit organizations – 501c3 or all
 - Government agencies – small local or all
 - Large businesses

Patchwork of Covered Entities



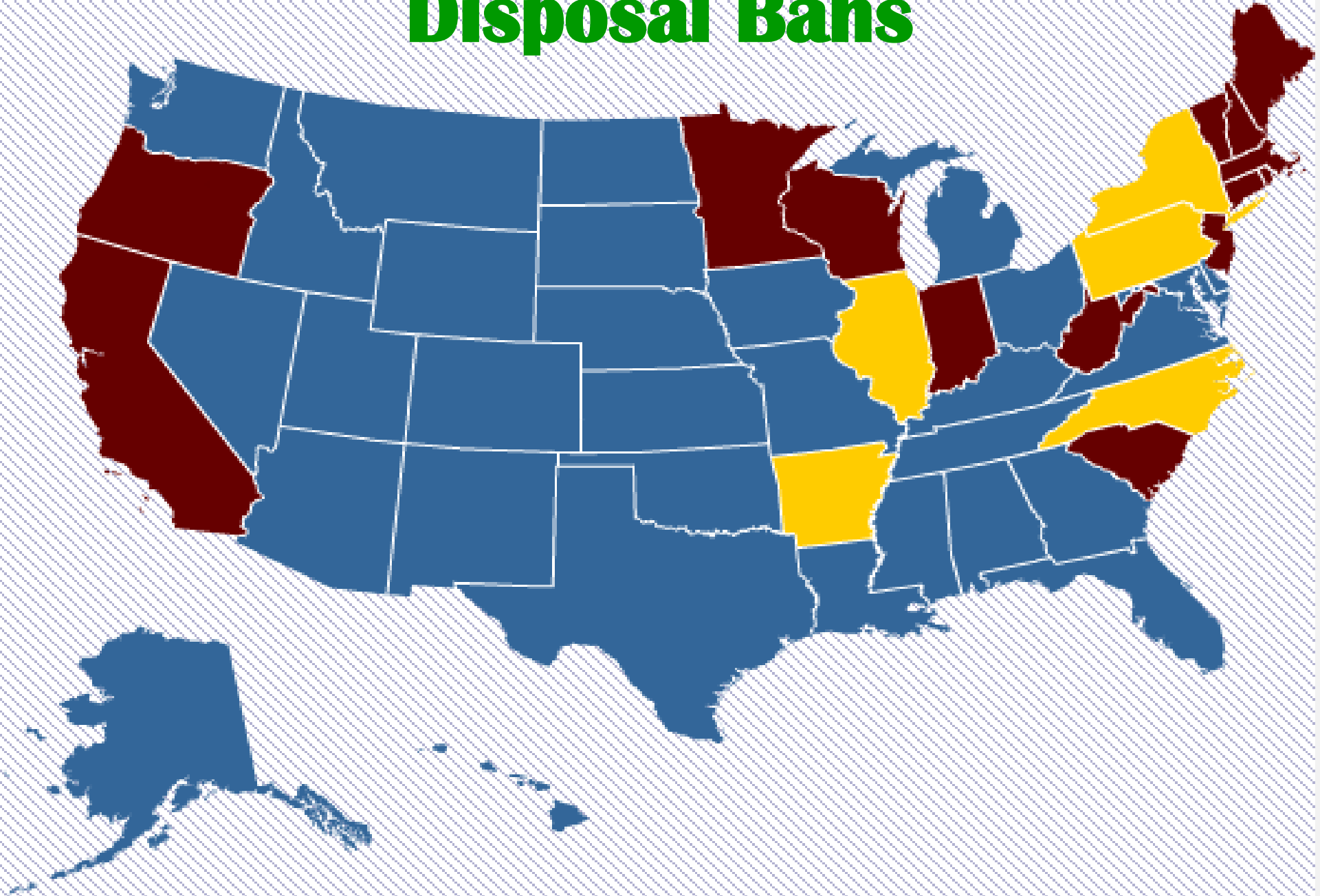
Some states cover all entities, whereas others put restrictions on who is covered and may only cover households, or households and schools. Go to ecycleclearinghouse.org for more details.

Disposal Bans



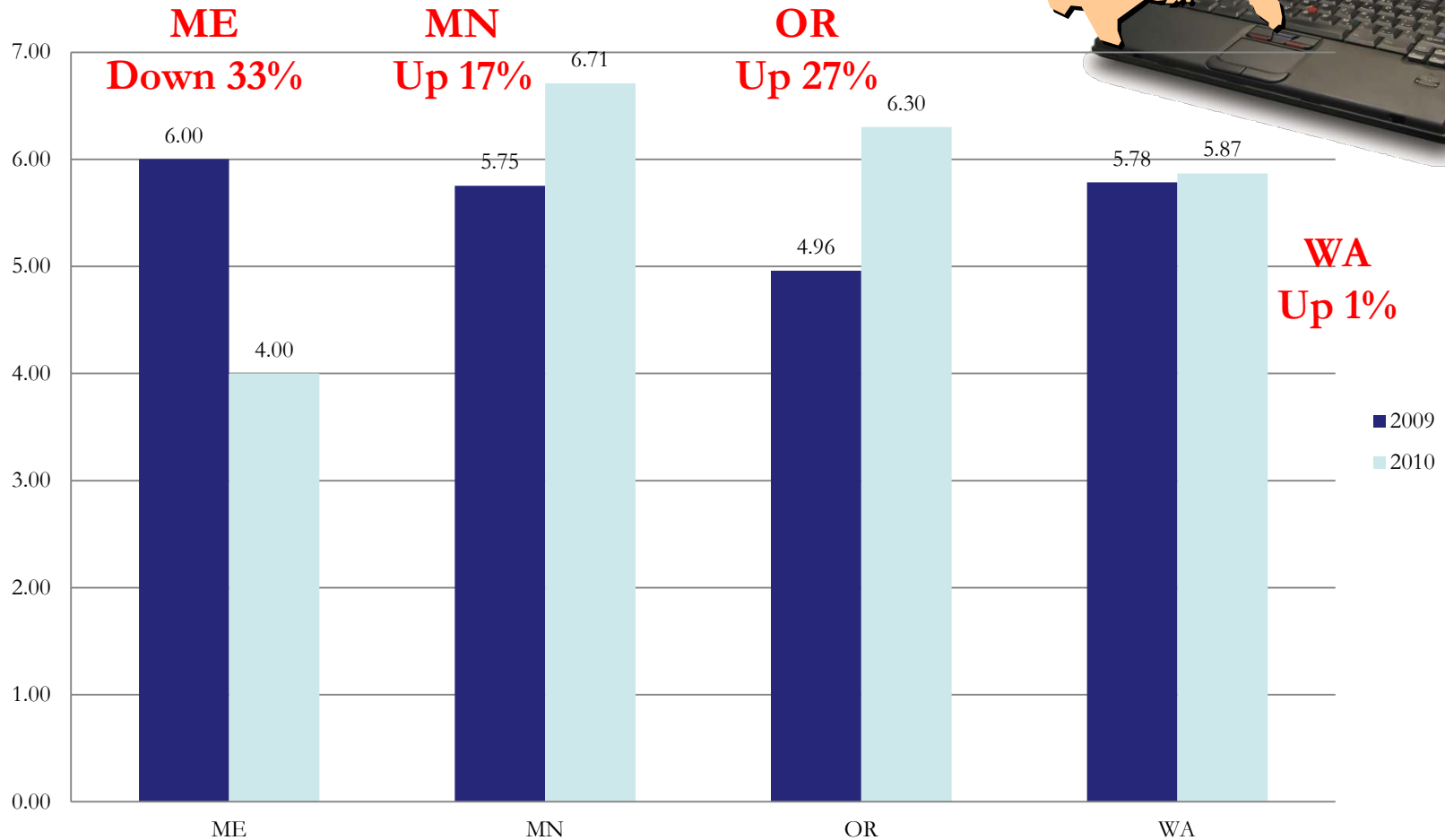
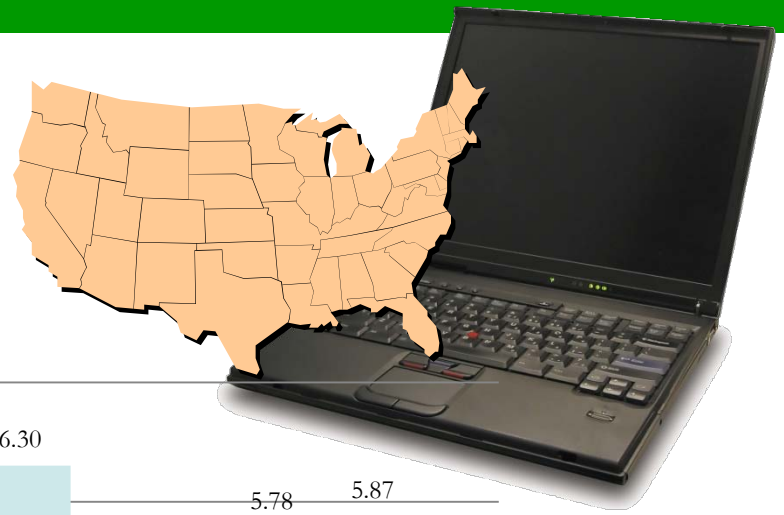
- States with disposal bans but *no program law*:
 - Massachusetts, New Hampshire, (Arkansas)
- States *with program laws*, but no disposal ban:
 - HI > OK
 - TX > MD
 - VA (county ban > MI
 - WA (county bans) > MO
 - UT

Disposal Bans



Current Metrics

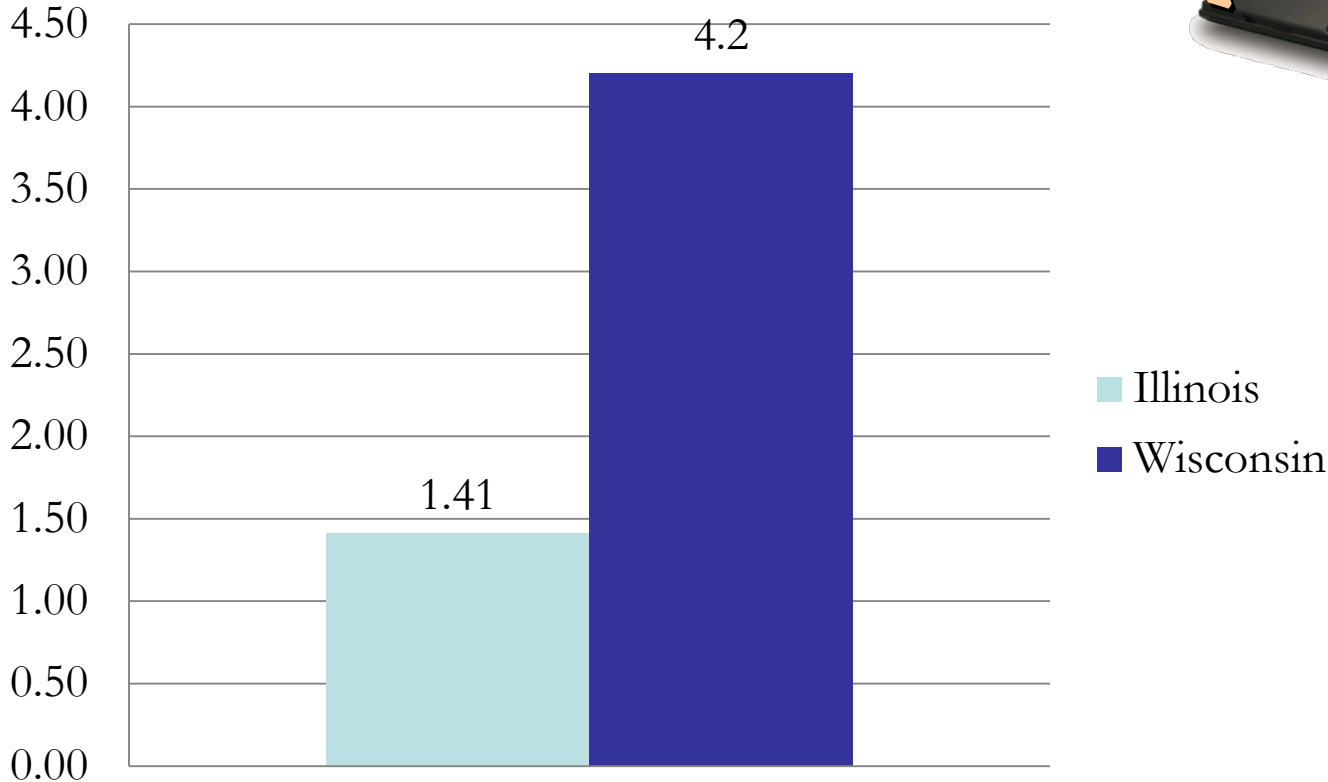
2009/2010 Per Capita Rates



NOT a True Comparison – Products/Entities Differ!

Current Metrics

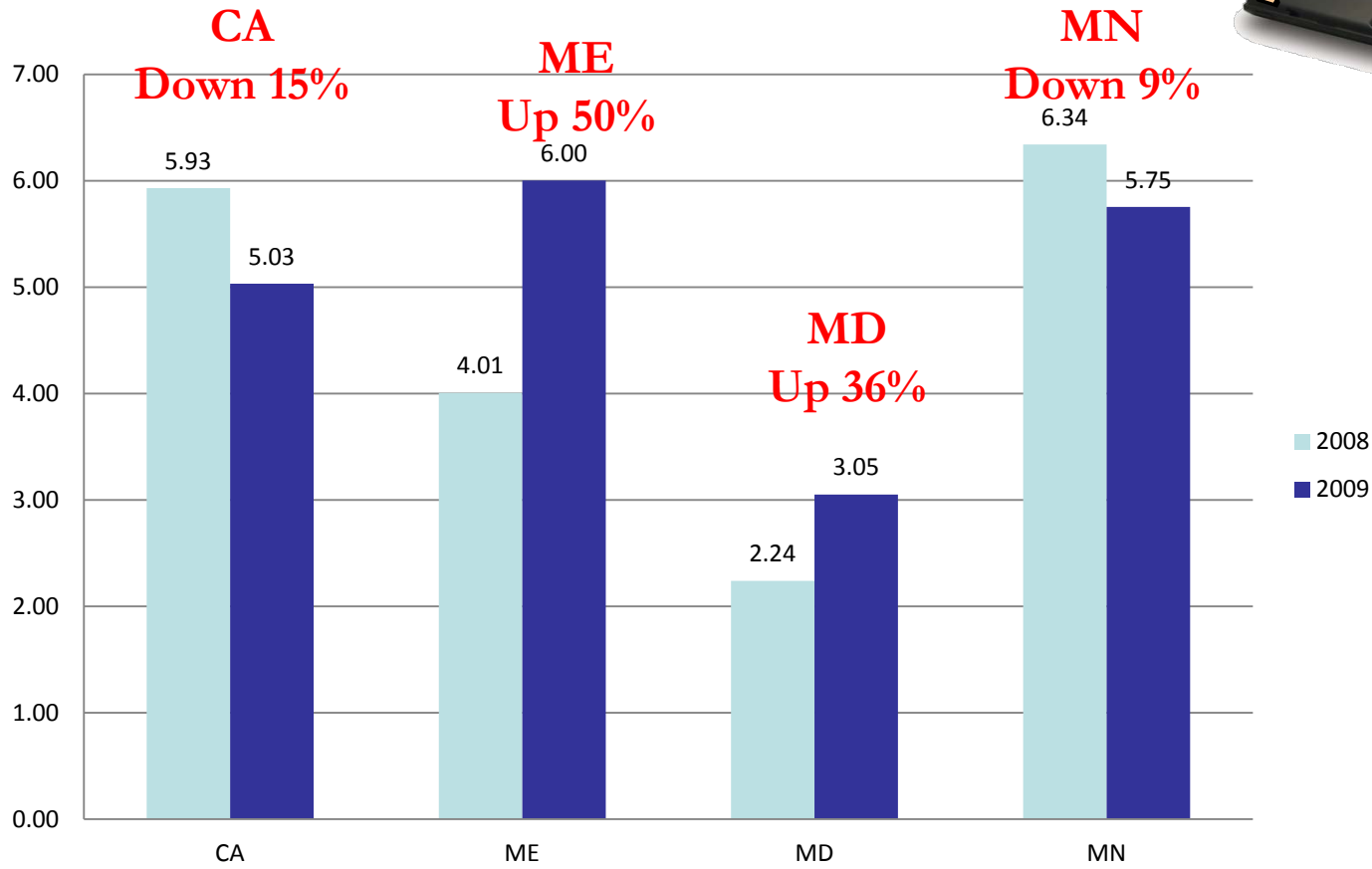
Other Per Capita Rates



NOT a True Comparison – Products/Entities Differ!

Older Metrics

2008/2009 Per Capita Rates



NOT a True Comparison – Products/Entities Differ!

NCER Per Capita Index



- Annual Calculation Based on 6 static programs
 - 2 states, 2 large local, and 2 small local
- NCER 2010 PCCI= **-2%**
 - 2009: 7%
 - 2008: 8%
- First decrease in 5 years of tracking
 - Mainly due to ME 35% decrease, but 2 others down slightly

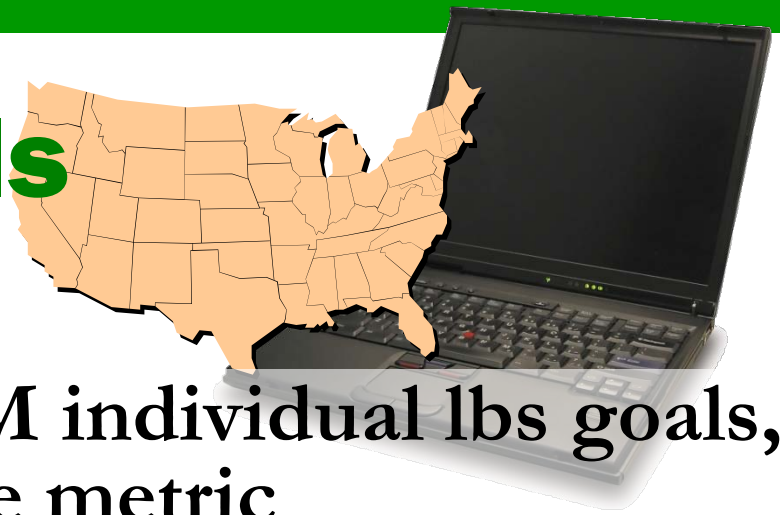
Pounds Sold Annual



Product Category	National Home Sales Estimate (millions of lbs)	Percentage
Desktop Computers	270	10%
Laptop Computers	133	5%
Monitors	248	9%
Televisions	1,686	63%
Printers	332	12%
TOTAL NATIONAL POUNDS	2,669	

Source: NCER Analysis of iSuppli and IDC unit data, July 2008 – June 2009

State Models



1. Pounds sold/share – OEM individual lbs goals, some without convenience metric
 - IL, IN, MN, NY, NJ, WI, (MI), (NC), (SC)
2. Default and opt-out, usually with convenience goals, collective programs
 - OR, RI, VT, WA
3. Limited takeback programs
 - MD, MO, (NC), (MI), (SC), OK, TX, VA, WV
4. Recycler approval, then bill manufacturer, return and market share
 - CT, ME



Key Responsibilities for Manufacturers

Key Concepts



- **Return Share or Returns:** percentage of a brand as a portion of the overall returns, by weight. Through actual counts or sampling
- **Market share:** brand or manufacturer percentage of overall sales, in units or weight
- **Collection goals:** Total responsibility for manufacturer to collect, in % or weight
- **Convenience goals:** minimum number of required locations by geography or by other measure (sometimes vague)

More on Convenience



- **Strict Convenience:**
 - **OR/WA:** each plan 1 site per county* + 1 site per city over 10,000
 - **NJ:** DEPT must ensure 1 per county
 - **NY:** 1 option per county, can be mailback
- **Loose convenience**
 - MO, TX, WV, VA, OK
- **No Convenience, but rural incentives**
 - MN (1.5 lbs per 1), IL, (IN)
- **No convenience, but reliance on locals**
 - ME, CT
- **No commons standards to judge for state managers**
- **How does mailback fit in?**

Model 1: Lbs sold/share

IL, IN, MN, NY, NJ, WI, (MI), (NC), (SC)



- Register prior to sale
 - Report covered brands, pay admin fee
 - Some also need lbs sold for state
- Know/estimate Lbs needed!
 - MN based on current sales – estimate
 - Choose recycler, penalties for under collection
- Key Differences
 - geographic/convenience goals – strict in NY/NJ soft in MI; others give incentive for rural areas
 - LBs sold or LBs sold/unit share? Makes difference for overall collection goal
 - Retroactive TV market share goal in SC, NC

Model 2: Default/Opt-Out

OR, RI, VT, WA



- Register prior to sale
 - Report covered brands, pay admin fee
 - Historic brands also in all but VT
- Make Program Choice
 - Default plan/program or propose opt-out plan
 - No recycler choice with default, (or collective)
 - Meet convenience and lbs goals with opt-out
- Key Differences
 - Return share and market share responsibilities
 - Only WA all return share
 - Collection goal set by state/law, or retroactive (only WA)

Model 3: Limited Takeback

MD, MO, (NC), (MI), (SC), OK, TX, VA, WV



- Submit plan/register prior to sale
 - Usually no “admin” fee
- Choose plan type to meet requirements
 - Many allow mailback to suffice
 - No strict collection goals (*MI, SC, NC), limited convenience goals
 - Choose recycler or collective group
- Key Differences
 - MD and WV allow fee only with no plan
 - NC higher fees for just mailback, lower if more
 - TVs not covered in MO, VA, MO, and TX

Model 4: Recycler approval, Bill manufacturer CT, ME



- Register prior to sale
 - Submit current and historic brands, pay admin fee
- Pay invoices from state-approved recyclers
 - Limited ability to divert to preferred recyclers
 - No collection goals, pay costs of ultimate lbs collected by municipalities
- Key Differences
 - Product scope differences, desktops

MODEL 5 – California ARF

- Annual report on design attributes

Manufacturer Costs

Maine 2010 Report, 2009 data
self reports from OEMs

Key for Budgeting Purposes

- Difficult to estimate in some states
- Mainly two factors – pounds and price per lb
- Other resource costs – time to comply, hire outside counsel, etc
- Very few cost data points, private transactions
- Public data in CT, ME

State	Avg Price Per Lb Paid by OEMs
Maine	\$0.33
Minnesota	\$0.16
Oregon	\$0.26
Rhode Island	\$0.35
TX, OK, VA	\$0.25
Washington	\$0.26



Key Responsibilities for Recycler

Model 1: Lbs sold/share

IL, IN, MN, NY, NJ, WI, (MI), (NC), (SC)



- Register to be eligible for OEM
 - Few require R2 or e-Steward, but manufacturer due diligence
 - Submit required info to state
- Win contracts from single or group OEMs, receive Lbs estimate from OEM
 - Plan collection network accordingly, but may have competition
 - Prepare collection plan if required
- Key Differences
 - Registration fee, becoming more common
 - Strict convenience only in NY, soft in NC/MI

Model 2: Default/Opt-Out

OR, RI, VT, WA



- Seek default or opt-out managers
 - Submit bids or develop proposal to win contracts
- Meet minimum environmental requirements
 - WA/OR/RI require version of R2, VT R2 + or e-Steward
 - Register with state if required, usually no fee
- Key Differences
 - 1 Plan (VT, WA) or multiple (OR, RI)
 - Role in program admin, such as meeting convenience and collection goals, usually less than model 1

Model 3: Limited Takeback

MD, MO, (NC), (MI), (SC), OK, TX, VA, UT, WV



- Seek manufacturers or groups, develop tailored plans
 - Have mailback option available
 - Know fee payback case for NC, WV, MD
 - Can also work for local govts in these 3 states
- Few registration/fee requirements
- Meet minimum environmental requirements
 - Bigger challenge is OEM requirements
- Key Differences
 - Mailback not an option for TVs, balance collection locations to meet requirements

Model 4: Recycler approval, Bill manufacturer CT, ME



- **Submit application to state**
 - Detailed on practices, downstream, insurance, etc
- **Get capabilities for brand recording/billing OEM**
- **Key Differences**
 - Billing products by market share or returns

MODEL 5 – California ARF

- **Submit application, get approval from CalRecycle, DTSC**
- **Find collectors or collect on own, submit all required documentation for payment**

Potential Recycler State Law Compliance Services



- Traditional collector relationships and logistics services
 - Find pounds from collectors to meet OEM need
 - Manage collector network requirements in default/opt-out states
 - Provide transport services, report results
- Broker pounds in lbs sold states
 - To other OEMs, recycler; beware of deadlines!
 - Risk in taking from local govt without OEM buyer

More State Law Compliance Services



- **Data Services**
 - Know all you can!
 - Track brands, product categories, product age (if possible)
 - All could be valuable and make the difference in getting contracts
 - Currently required in few states, but could expand
- **Consulting services**
 - Knowledge about laws/models can be service to OEMs, other vendors



Other Entities

Collectors, Transporters, Retailers

Responsibilities for Other Entities



- **Collectors:** few states with registration, fees very rare, find program/recycler, meet basic responsibilities
- **Transporters:** registration rare, sometimes called out w/requirement under ESM, can also be collector/recycler
- **Retailers:** mainly education, state specific messaging desired on receipt or other POS

Policy Implications



- Type of model impacts all stakeholders differently
- In some, manufacturer simply pays fee/s
- Others require plan from scratch
- Recyclers/consultants very involved in working plan type for OEMs, developing low-cost solutions
- Lot of competition for recyclers to get manufacturer contracts
 - Up to 300 total unique OEMs, but only 30-50 with significant obligations



Break

**Next: Practical Experiences with
Complying under State Laws**



Tips from State Managers

Common Mistakes and Misunderstandings



- **Most common complaint: missing information**
 - Missing brand and type of devices, missing sales information
- **Know the laws!**
 - Read over the state's law before submitting, since every state has different requirements.
 - Pay close attention to what devices are eligible to count toward a mfr's obligation, and what types of entities they can be collected from

Common Mistakes and Misunderstandings



- **Reporting Mistakes**
 - Coordinate with manufacturer/recycler and vice versa: -i.e., what recyclers say they processed on behalf of manufacturers should match what the manufacturers report but sometime **DOESN'T**
- **Recyclers**
 - Need clearly written SOPs for handling e-waste and program data at their facilities
 - Understand insurance/financial assurance requirements and properly disclose downstream vendors when required

Other Tips from State Managers



- **Other Reporting Mistakes**
 - Check target calculations – states differ on minimums – 60%/80%/100%
- **Pay attention to deadlines!**
 - Very common for states to chase manufacturers/recyclers for report months after deadline

Addressing the Patchwork Challenge



Electronics Recycling
Coordination Clearinghouse

www.ecycleclearinghouse.org

What is the ERCC?



- Forum for coordination and info exchange, joint decision-making
- Voting and Affiliate Members
 - Modeled on Toxics in Packaging Clearinghouse
- Reduce administrative overlap
- Offer covered stakeholders a one-stop shop for information on state laws
- Coordinate data gathering and information sharing
- Formalize joint, but non-binding, responses on key implementation issues

Thank You!



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Visit us on the web:

www.electronicrecycling.org

and www.ecycleclearinghouse.org