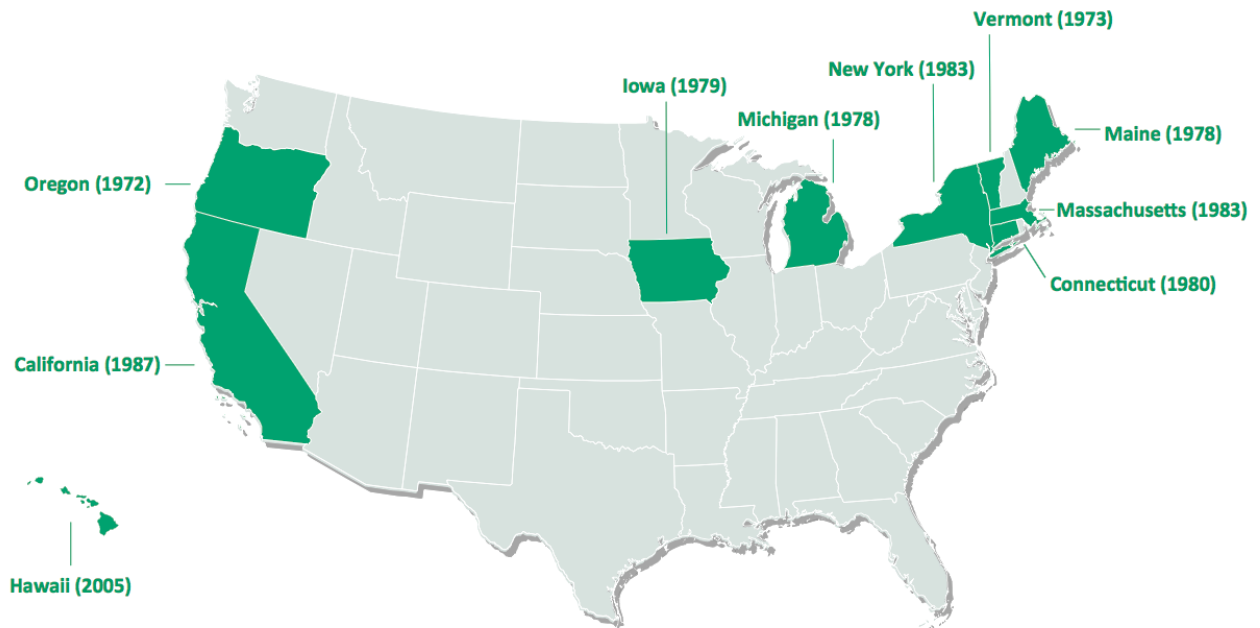




USA

(88.6 million have access to DRS)



State	Population (million)	Mandate Enacted	Mandate Implemented
1. California	38.8	1986	1987
2. Connecticut	3.6	1978	1980, 2009 (Water)
3. Hawaii	1.3	2002	2005
4. Iowa	3.1	1978	1979
5. Maine	1.3	1976	1978
6. Massachusetts	6.6	1981	1983
7. Michigan	9.9	1976	1978
8. New York	19.5	1982	1983, 2009 (Water)
9. Oregon	3.9	1971	1972
10. Vermont	0.6	1972	1973



CALIFORNIA

Population: 38m

Website: www.calrecycle.ca.gov/bevcontainer/



MANDATE

California Beverage Container Recycling and Litter Reduction Act

Enacted:	1986
Implemented:	1987
Last Updated:	2012 (Enforcement & Payments)
Authority:	Department of Conservation (CalRecycle)
Target:	80% Recycling Rate

PROGRAM SCOPE

Material:	Plastic, metal (aluminum), bimetal, glass
Beverage type:	Beer; malt; wine and distilled spirits; all non-alcoholic beverages
Excluded:	Milk; 100% fruit juice ≥46 oz.; vegetable juice ≥16 oz; refillables

DEPOSITS AND FEES

Deposit:	Initiated by Producer/Distributor/Importer
Deposit value:	Containers < 24oz: USD \$0.05 Containers ≥ 24oz: USD \$0.10
Unredeemed deposits:	Escheated to state, used for program administration
Handling fee:	Paid to the operators of supermarket redemption sites to help cover the costs of operating the redemption system
Processing Fee (PF):	Paid by beverage manufacturers to the Department of Conservation, per container sold
Processing Payments:	Made to all certified recyclers and processors (by the Department) when the cost of recycling exceeds the value of material, per ton redeemed

SYSTEM OPERATOR

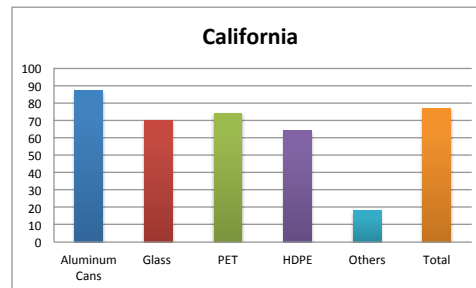
Clearing System:	Centralized
System Operator & Administrator:	CalRecycle (Government Operated)

REDEMPTION SYSTEM

Return-to-Retail (25%)	Return-to-retail obligation with opt-out if certified recycling center is located in a Convenience Zone (CZ); non-handling fee recycling centers; curbside/drop-off recycling programs. CRV may be calculated by weight. 2,578 Recycling Centers (2012), 1,376 of which are CZ recyclers.
Return to certified recycler (55%-65%)	
"Donate" to Curbside (15%-20%)	
Material owner:	Processor, Curbside

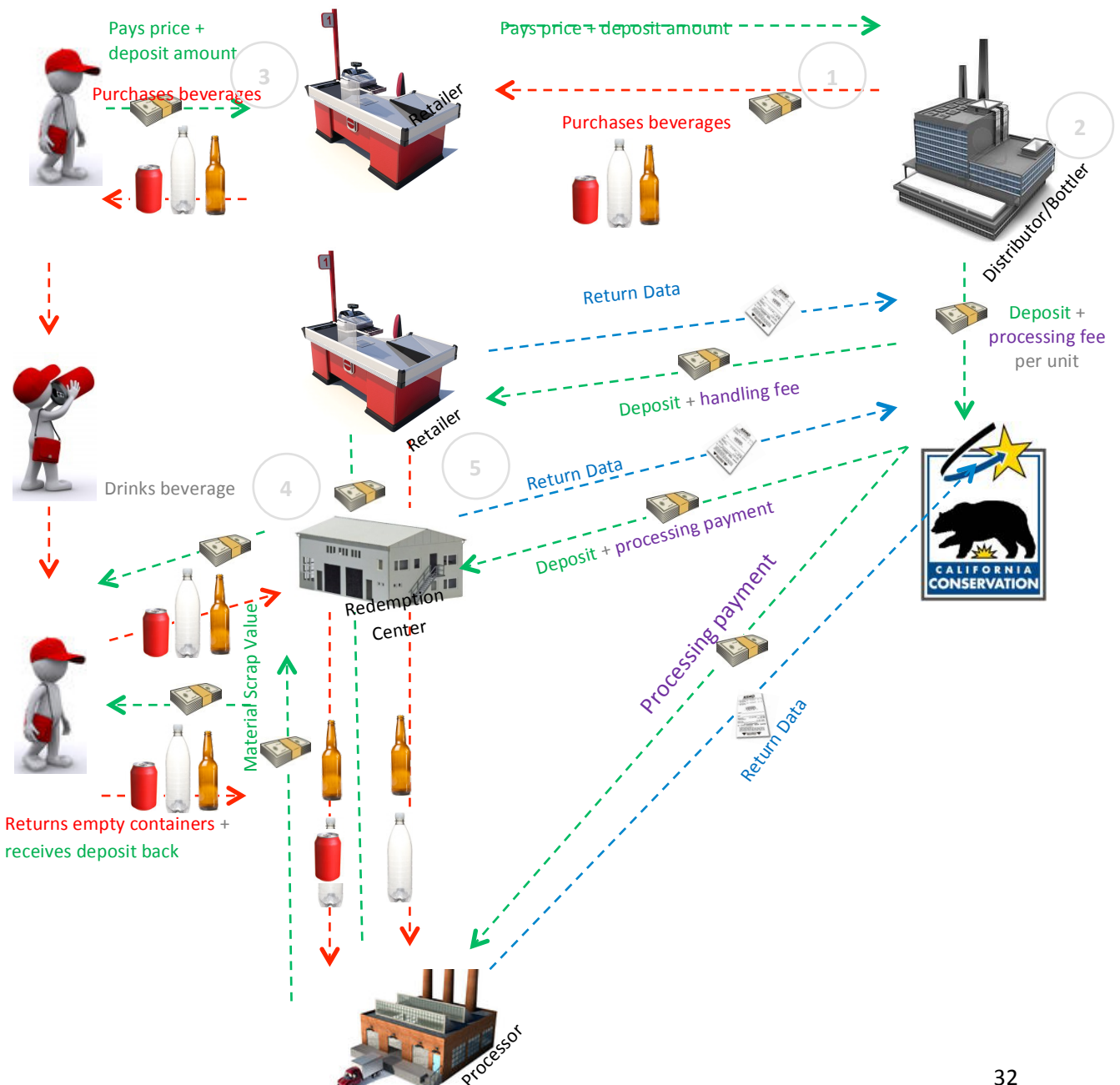
SYSTEM RESULTS (2017)

Total Return Rate:	77%*
Aluminum	87%
Glass	70%
PET	74%
HDPE	64%
Others	18%



*Curbside included in redemption rate

MONEY MATERIAL FLOW





CONNECTICUT

Population: 3.6m

Website: www.ct.gov/deep/cwp/view.asp?a=2714&q=324834



MANDATE

Beverage Container Deposit and Redemption Law

Enacted:	1978
Implemented:	1980
Last Updated:	2009 (Water added)
Authority:	Department of Energy and Environmental Protection

PROGRAM SCOPE

Material:	Plastic, metal (aluminum), glass (any individual, separate, sealed bottle, can, jar or carton containing a beverage <3l)
Beverage type:	Beer; malt; carbonated soft drinks (including mineral waters and soda waters); noncarbonated beverages (water, including flavored water, nutritionally enhanced water)
Excluded:	Other noncarbonated beverages; juices; HDPE containers

DEPOSITS AND FEES

Deposit:	Initiated by Producer/Distributor/Importer
Deposit value:	Plastic, metal, glass: USD\$0.05
Unredeemed deposits:	Escheated to State
Handling Fee:	USD\$0.015 for beer, USD\$0.02 other beverages

SYSTEM OPERATOR

Clearing System:	Decentralized, TOMRA
System Operator & Administrator:	Beverage Industry

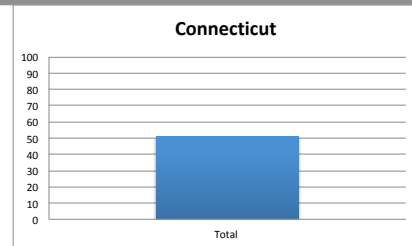
REDEMPTION SYSTEM

Return-to-Retail / Return to Redemption Center	Stores are only required to take back the brands that they sell.
Material owner:	Deposit Initiator

SYSTEM RESULTS (2017)

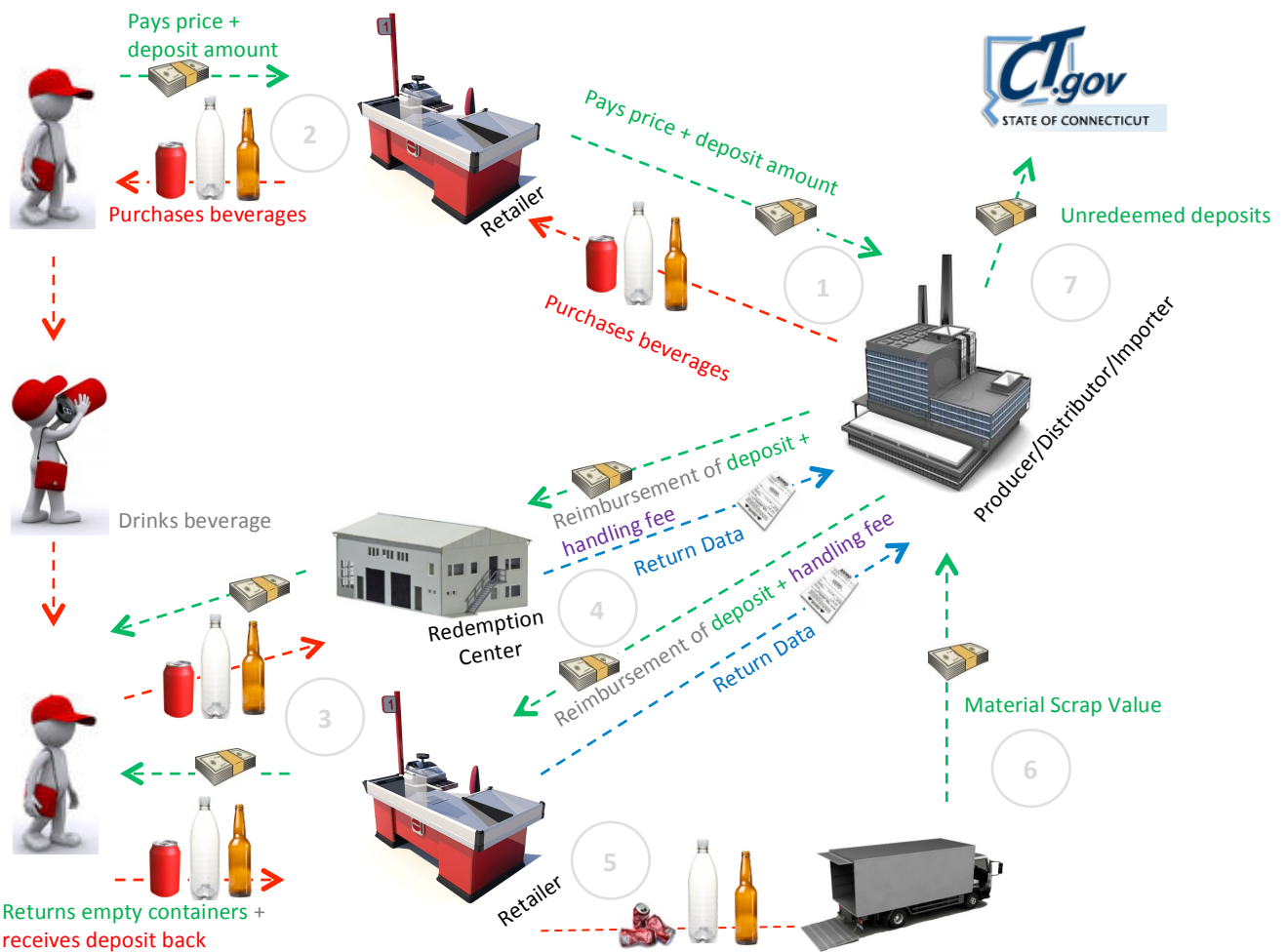
Return Rate:

50.7%



Before water bottles were added to the deposit system in 2009, redemption rates were higher (in the range of 65-70%).

MONEY MATERIAL FLOW





HAWAII

Population: 1.3m

Website: <http://health.hawaii.gov/hi5/>



MANDATE

Deposit Beverage Container Law (Act 176)

Enacted:	2002
Implemented:	2005
Last Updated:	2013 (Energy Drinks & Dietary Supplements)
Authority:	Department of Health

PROGRAM SCOPE

Material:	Plastic (PET, HDPE); metal (aluminum); bi-metal; glass ≤ 2l
Beverage type:	Beer; malt beverages; mixed spirits (< 15% alcohol content); mixed wine (< 7% alcohol content); all non-alcoholic beverages (e.g. juice, tea, etc.)
Excluded:	Milk; dairy products

DEPOSITS AND FEES

Deposit:	Initiated by Producer/Distributor/Importer
Deposit value:	USD\$0.05
Unredeemed deposits:	Escheated to state, used for program administration
Handling Fee:	USD\$0.02 to \$0.04 (variable). Paid to redemption centers from the Deposit Beverage Container Fund.
Container Fee:	USD\$0.015 non-refundable fee paid by consumer on top of the deposit to fund redemption centers

SYSTEM OPERATOR

Clearing System:	Centralized
System Operator & Administrator:	Department of Health (Government Operated)

REDEMPTION SYSTEM

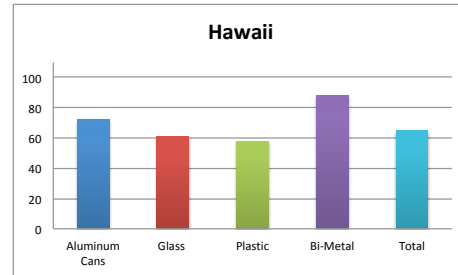
Return to Redemption Center

Persons who sell beverages in deposit containers to a consumer for off-premises consumption are required to operate redemption centers on-site, and must take back all empty beverage containers with a Hawaii refund value. Independent redemption centers are allowed by the law, but are subject to state certification.

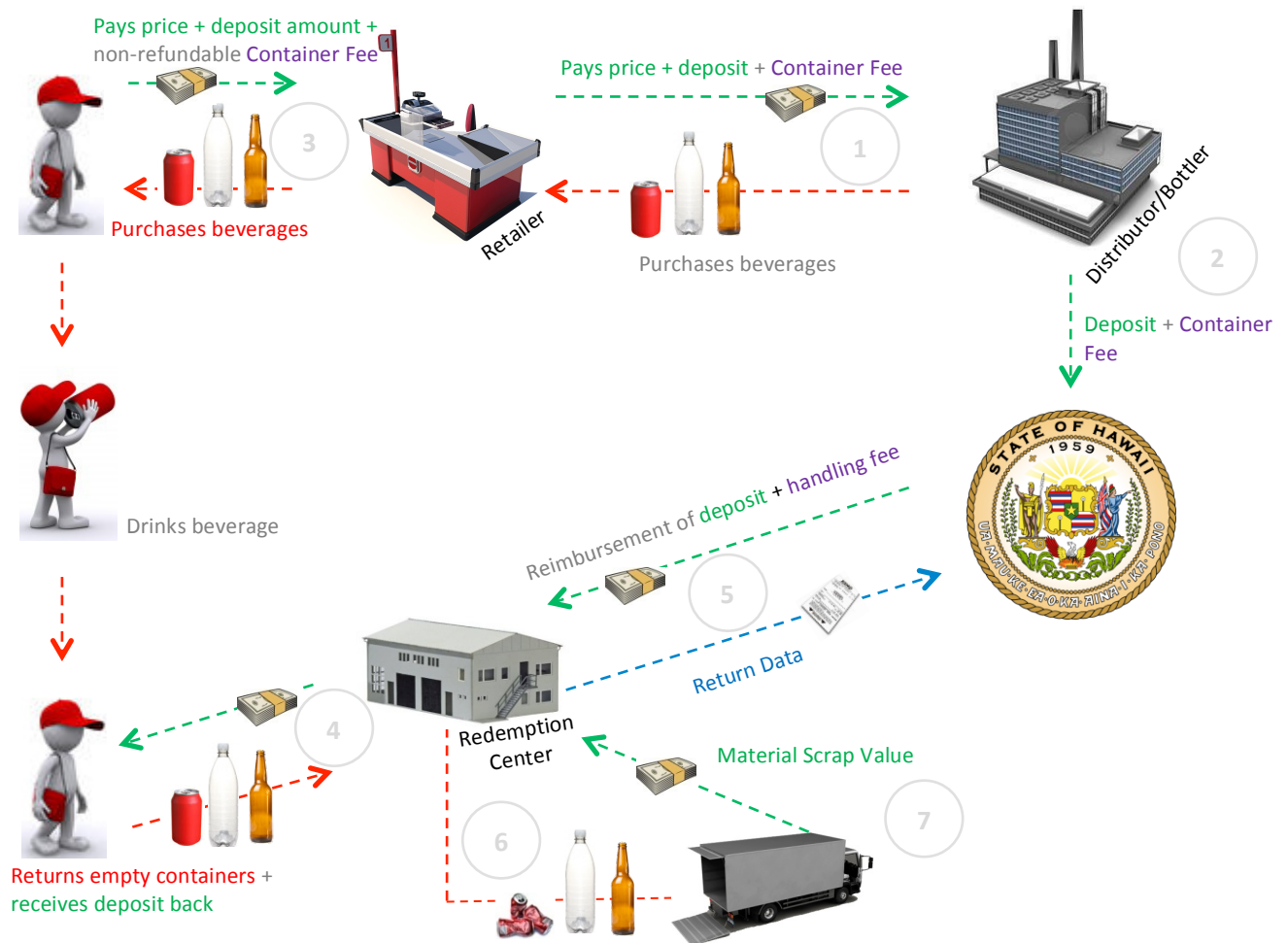
Material owner:	Redemption Center
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SYSTEM RESULTS (2017)

Total Return Rate:	65%*
Aluminum	72%
Glass	61%
PET	58%
Bi-Metal	88%



MONEY MATERIAL FLOW





IOWA

Population: 3.1m

Website: www.iowadnr.gov/Environmental-Protection/Land-Quality/Waste-Planning-Recycling/Bottle-Deposit-Law



MANDATE

Beverage Containers Control Law

Enacted: 1978

Implemented: 1979

Authority: Iowa Department of Natural Resources (DNR)

PROGRAM SCOPE

Material: Any sealed glass, plastic, or metal bottle, can, jar or carton containing a beverage

Beverage type: Beer; carbonated soft drinks; mineral water; wine coolers; wine & liquor

Excluded: Fruit and vegetable juices; fruit drinks; milk and milk products

DEPOSITS AND FEES

Deposit: Initiated by Producer/Distributor/Importer

Deposit value: USD\$0.05

Unredeemed deposits: Distributor/Bottler

Handling Fee: USD\$0.01 paid by deposit initiator to retailers and redemption centers

SYSTEM OPERATOR

Clearing System: Decentralized, CRINC

System Operator & Administrator: CRINC, Deposit Initiators

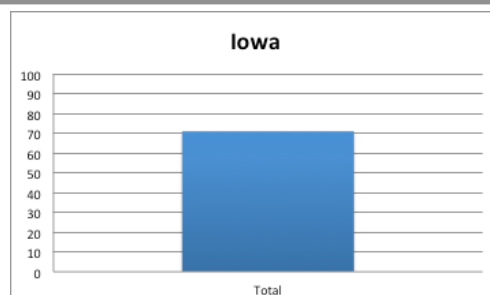
REDEMPTION SYSTEM

Return-to-Retail / Return to Redemption Center

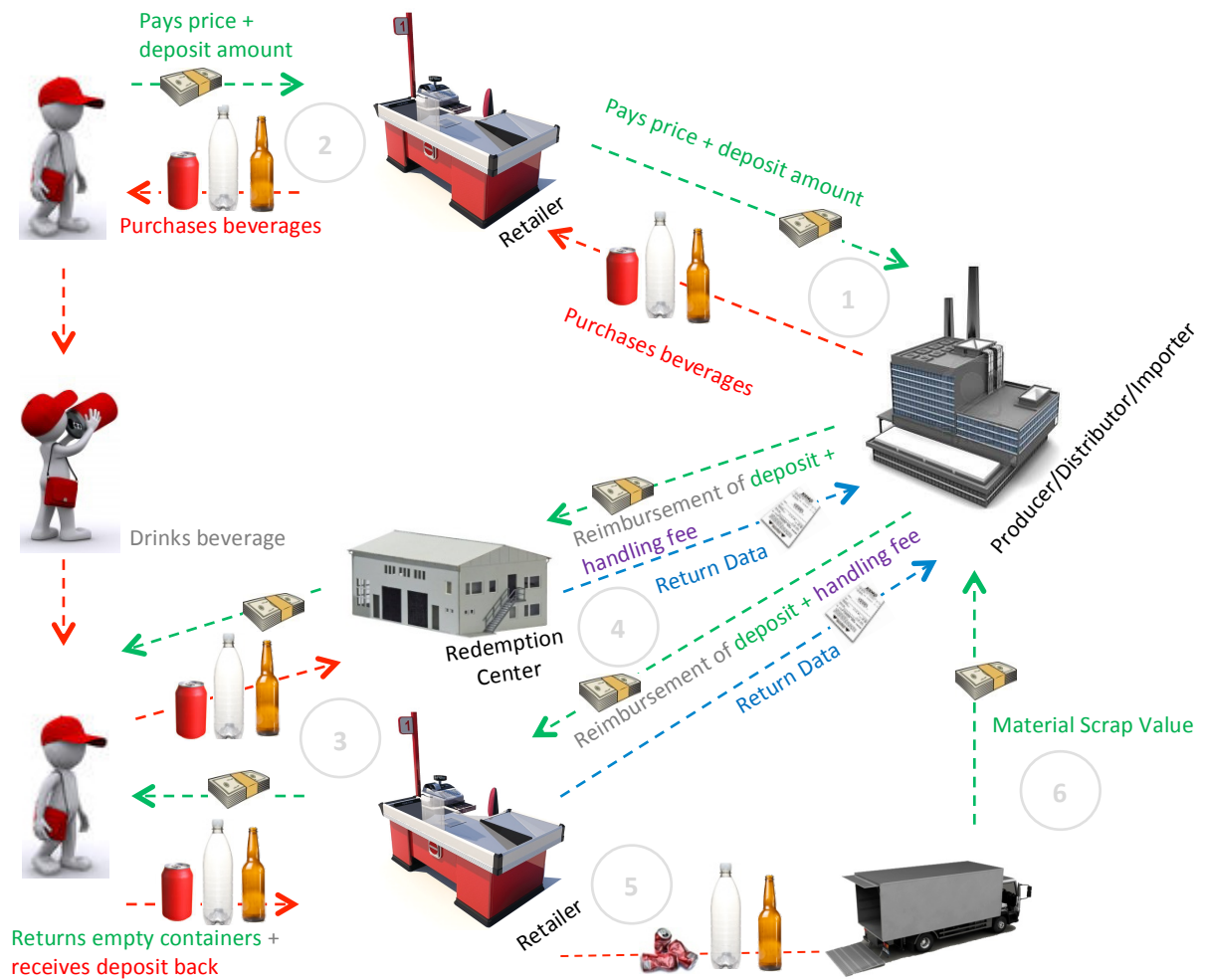
Material owner: Deposit Initiator

SYSTEM RESULTS (2016)

Total Return Rate: 71%



MONEY MATERIAL FLOW





MAINE

Population: 1.3m

Website: <http://maine.gov/dep/sustainability/bottlebill/index.html>



MANDATE

Maine Returnable Beverage Container Law

Enacted: 1976

Implemented: 1978

Last Updated: 2011

Authority: Department of Agriculture, Conservation and Forestry, Weights and Measures

PROGRAM SCOPE

Material: Plastic, metal (aluminum/tinplate), glass
(all sealed containers made of glass, plastic or metal, containing ≤ 4l)

Beverage type: All

Excluded: Dairy products; unprocessed cider

DEPOSITS AND FEES

Deposit: Initiated by Producer/Distributor/Importer

Deposit value: Plastic, metal, glass: USD\$0.05
Wine/liquor: USD\$0.15

Unredeemed deposits: Escheated to state (when containers are not subject to a comingling agreement)

Handling Fee: USD\$0.04 (\$0.005 less if deposit initiator participates in a qualified comingling agreement)

SYSTEM OPERATOR

Clearing System: Decentralized, TOMRA

System Administrator: Department of Agriculture, Conservation and Forestry

System Operator: Beverage Industry

REDEMPTION SYSTEM

Return to Retail / Return to Redemption Center

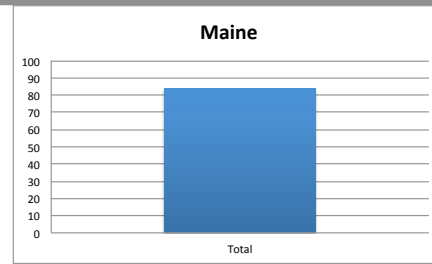
Retailers can opt-out if they have an agreement with a nearby redemption centre.

Material owner: Producer/Distributor/Importer

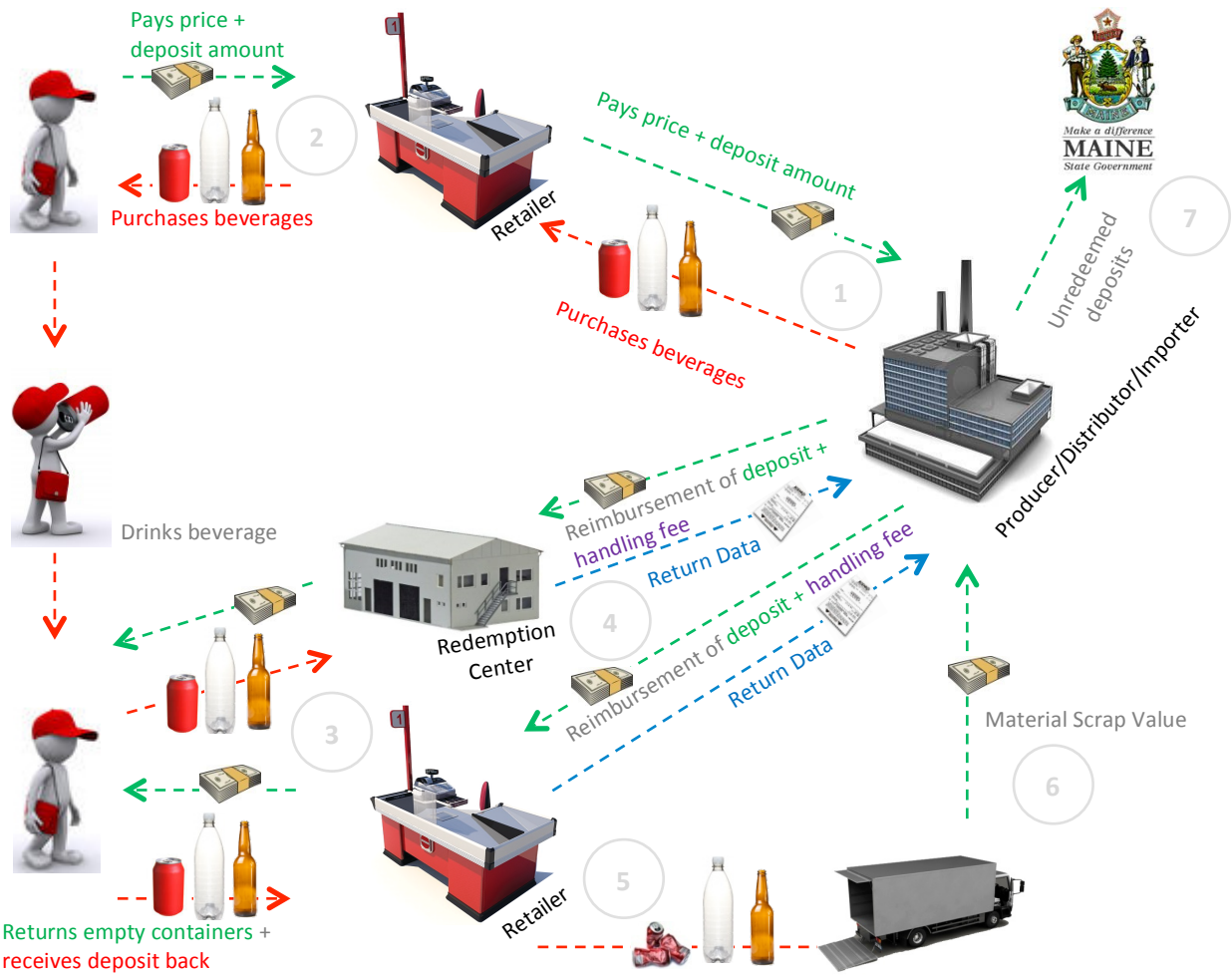
SYSTEM RESULTS (2017)

Total Return Rate:

84%



MONEY MATERIAL FLOW

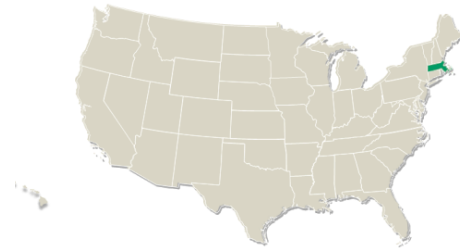




MASSACHUSETTS

Population: 6.6m

Website: www.mass.gov/eea/agencies/massdep/recycle/reduce/bottle-and-can-recycling.html



MANDATE

Beverage Container Recovery Law

Enacted: 1981

Implemented: 1983

Last Updated: 2013 (Handling Fee)

Authority: Massachusetts Department of Environmental Protection

PROGRAM SCOPE

Material: Plastic, metal (aluminum), bimetal, glass
(any sealable bottle, can, jar, or carton of glass, metal, plastic, or combination)

Beverage type: Beer; malt; carbonated soft drinks; mineral water

Excluded: Wine; dairy products; natural fruit juices; non-carbonated alcoholic beverages other than beer and malt

DEPOSITS AND FEES

Deposit: Initiated by Producer/Distributor/Importer

Plastic, metal, bimetal, glass: USD\$0.05

Unredeemed deposits: Escheated to State (Department of Revenue)

Handling Fee: USD\$0.0225 Retailers (receive free pick-up of containers by deposit initiators)
USD\$0.0325 Redemption Centers (RCs must deliver redeemed containers to central processing facility)

SYSTEM OPERATOR

Clearing System: Decentralized, TOMRA

System Operator & Administrator: Beverage Industry, TOMRA

REDEMPTION SYSTEM

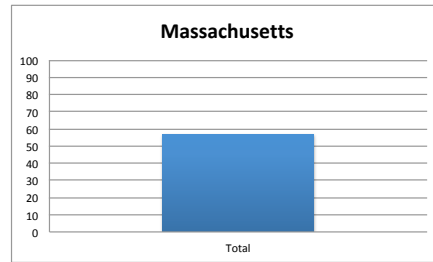
Return-to-Retail / Return to Redemption Center

Material owner: Deposit Initiator

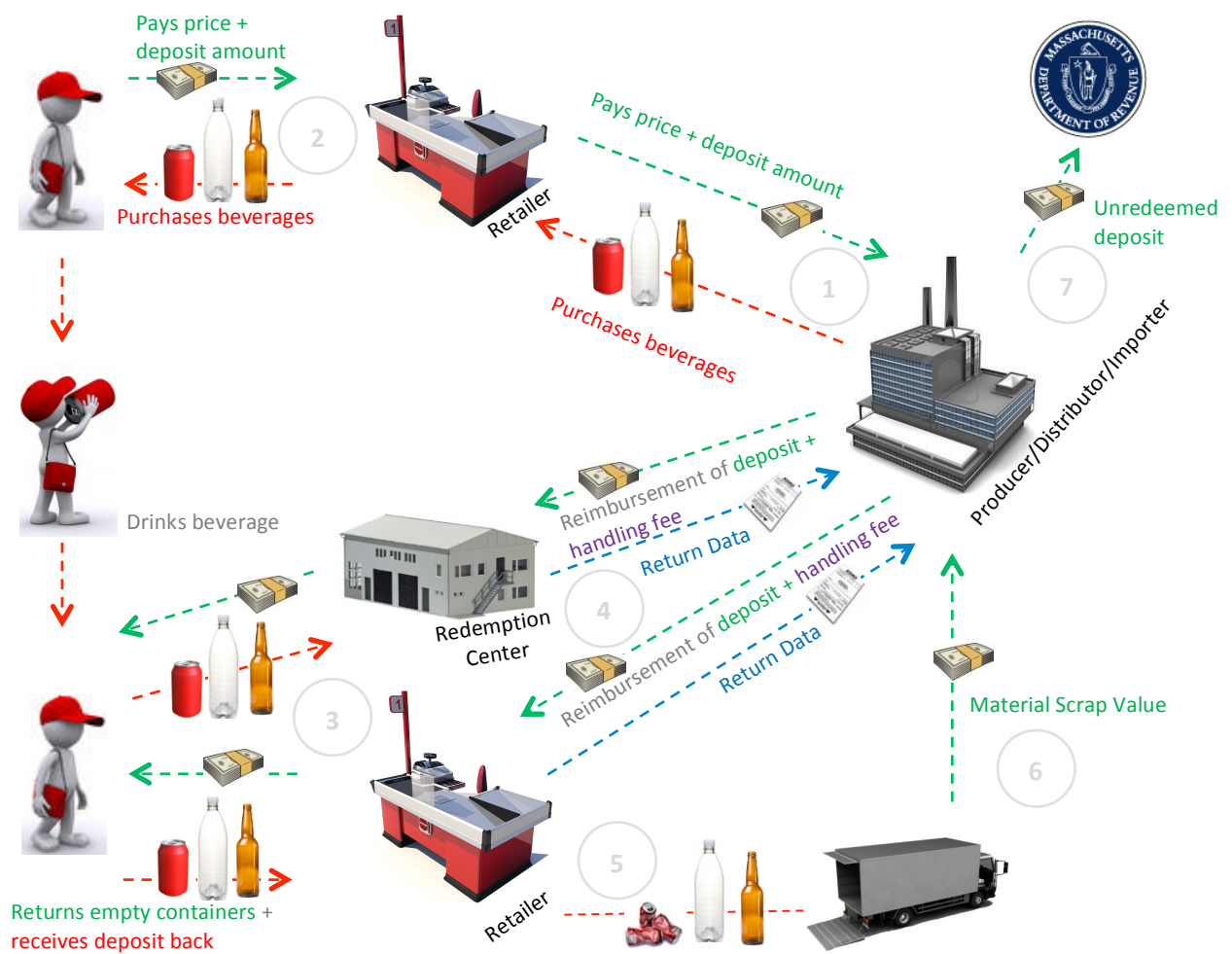
SYSTEM RESULTS (2017)

Total Return Rate:

57%



MONEY MATERIAL FLOW

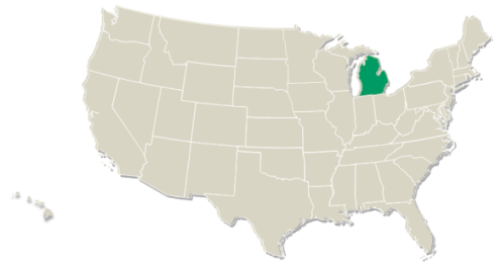




MICHIGAN

Population: 9.9m

Website: www.legislature.mi.gov



MANDATE

Michigan Container Law (MCL)

Enacted:	1976
Implemented:	1978
Last Updated:	2008 (Security Rules) 2012 (Excluded Pouches)
Authority:	Michigan Department of Treasury

PROGRAM SCOPE

Material:	Plastic, metal (aluminum/tinplate), glass, paper (Any airtight metal, glass, paper, or plastic container, or a combination < 1 gallon)
Beverage type:	Beer/ale; soft drinks; carbonated and mineral water; wine coolers; canned cocktails; malt drink of whatever alcohol content
Excluded:	Milk; juice; water; tea; sport drinks; foil pouches

DEPOSITS AND FEES

Deposit:	Initiated by Producer/Distributor/Importer
Deposit value:	Plastic, metal, glass: USD\$0.10
Unredeemed deposits:	75% escheated to State (to Clean-up and Redevelopment Trust Fund) / 25% available to retailers to cover handling costs
Handling Fee:	25% of unredeemed deposits

SYSTEM OPERATOR

Clearing System:	Decentralized; Michigan Soft Drink Association (MSDA), Michigan Beer & Wine Wholesalers Association (MBWWA), TOMRA
System Operator & Administrator:	Beverage industry

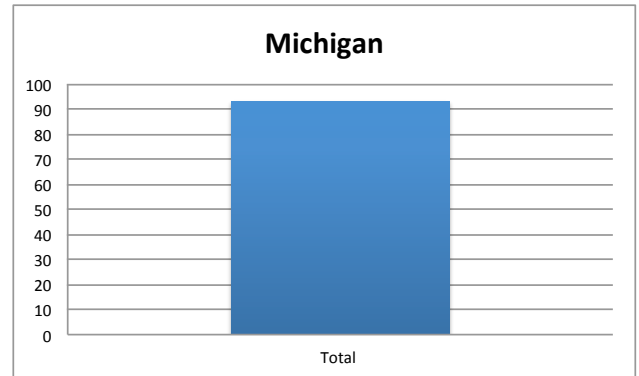
REDEMPTION SYSTEM

Return to Retail

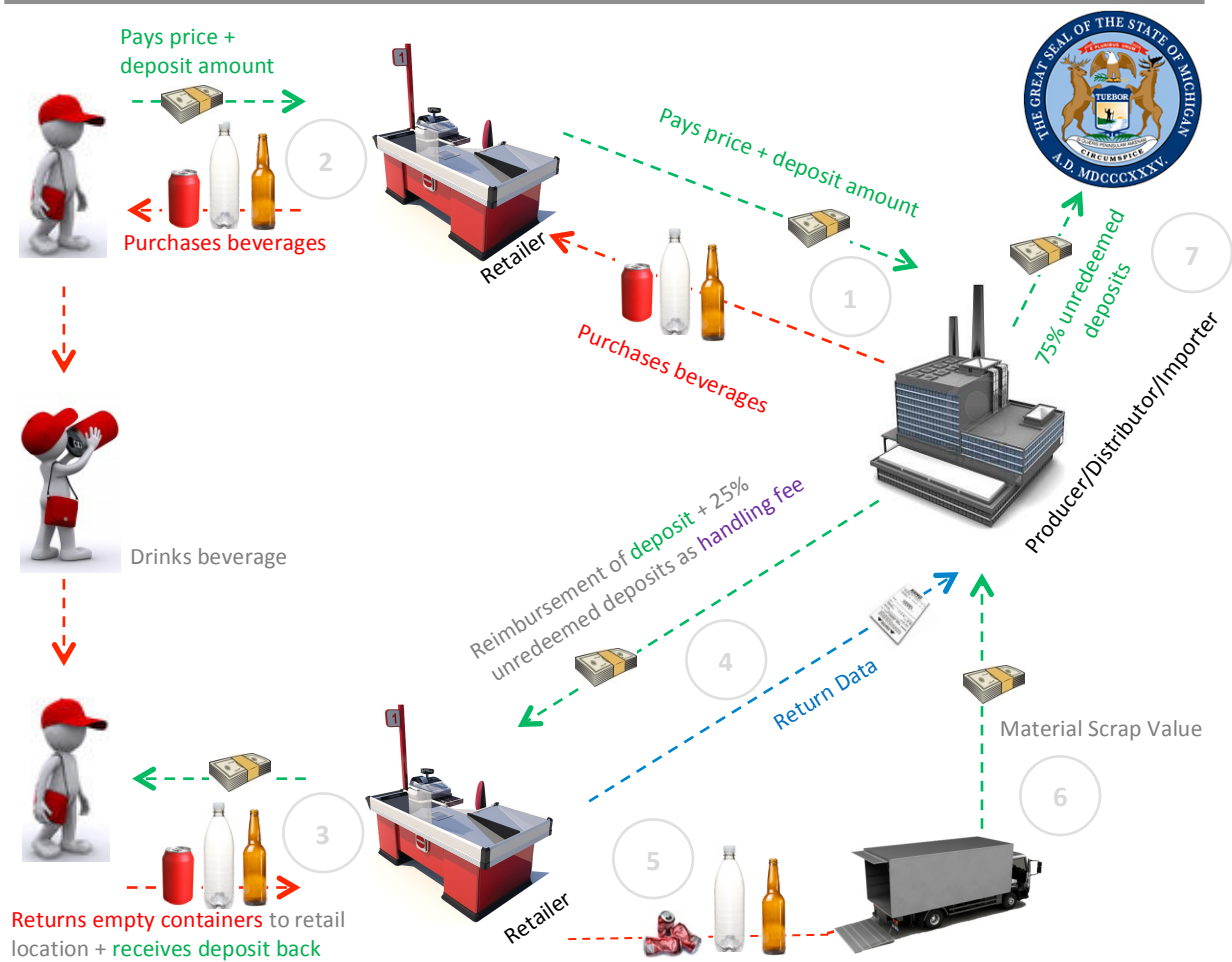
Material owner:	Deposit Initiator
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SYSTEM RESULTS (2016)

Total Return Rate: 92%



MONEY MATERIAL FLOW





NEW YORK

Population: 19.5m

Website: www.dec.ny.gov/chemical/8500.html



MANDATE

New York State Returnable Container Act

Enacted:	1982
Implemented:	1983
Last Updated:	2009 (Added Water) 2012 (Rules)
Authority:	New York State Department of Environmental Conservation

PROGRAM SCOPE

Material:	Plastic, metal (aluminum), glass (any individual, separate, sealed glass, metal, aluminum, steel or plastic bottle, can or jar containing ≤ 3.78l)
Beverage type:	Carbonated soft drinks; soda water; energy drinks, juices (anything < 100% juice, containing added sugar or water); beer and other malt beverages; mineral water (carbonated and non-carbonated); wine products; water that does not contain sugar, including flavored or nutritionally enhanced water
Excluded:	Milk products; wine and liquors; tea; sports drinks; juice; drink boxes; water containing sugar

DEPOSITS AND FEES

Deposit:	Initiated by Producer/Distributor/Importer
Deposit value:	Plastic, metal, glass: USD\$0.05
Unredeemed deposits:	80% to the New York State Department of Taxation and Finance (quarterly basis); 20% retained by Deposit Initiator
Handling Fee:	USD\$0.035

SYSTEM OPERATOR

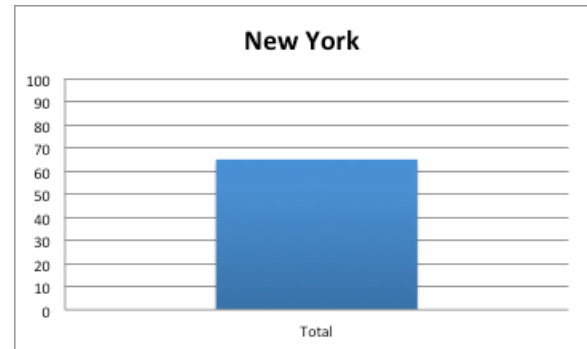
Clearing System:	Decentralized / TOMRA
System Operator & Administrator:	Beverage Industry; TNYR, Western New York Beverage Industry Collection & Sorting (WNYBICS)

REDEMPTION SYSTEM

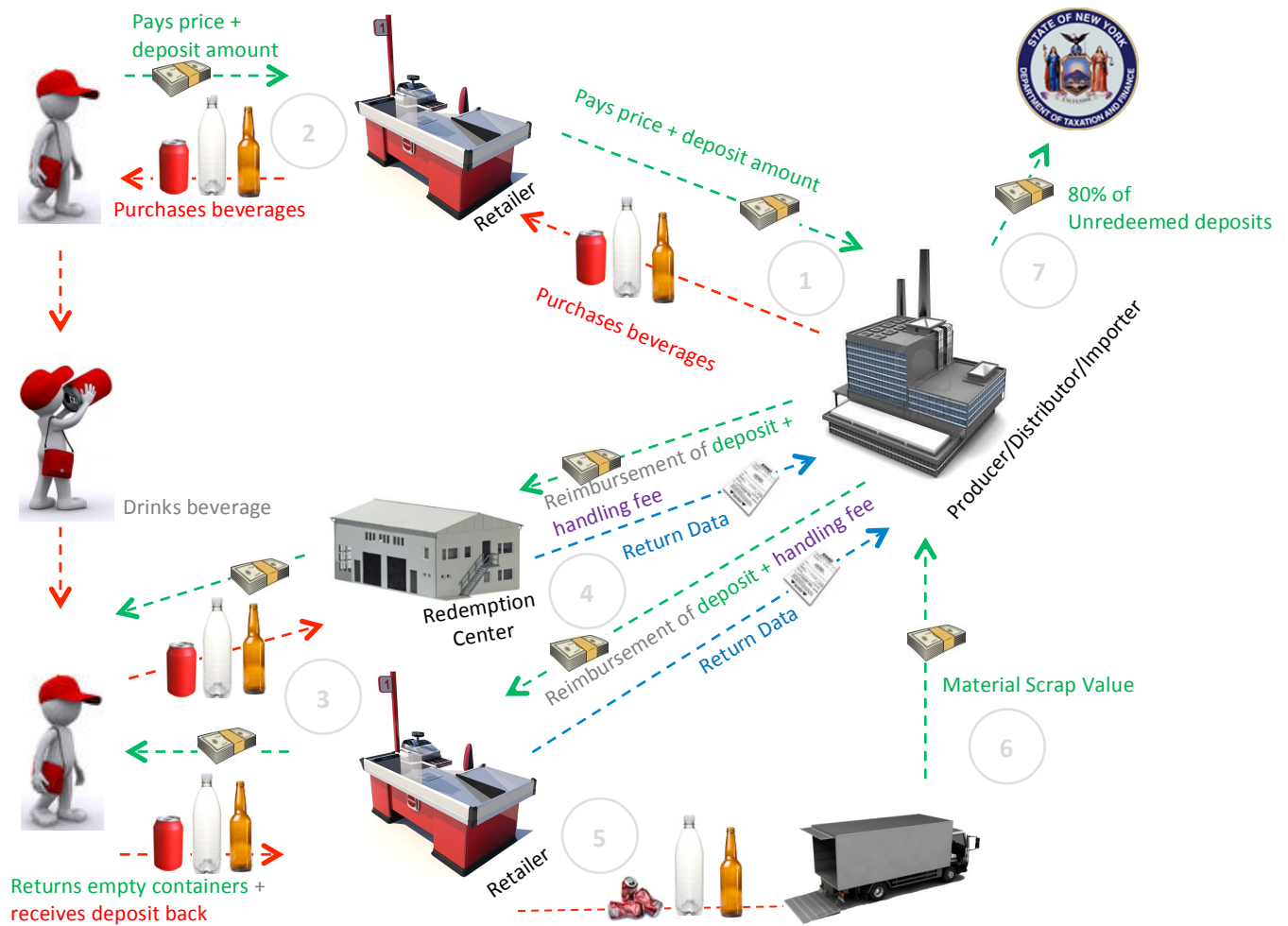
Return-to-Retail / Return to Redemption Center	Stores are only required to take back the brands that they sell
Material owner:	Deposit Initiator

SYSTEM RESULTS (2016)

Total Return Rate: 66%



MONEY MATERIAL FLOW

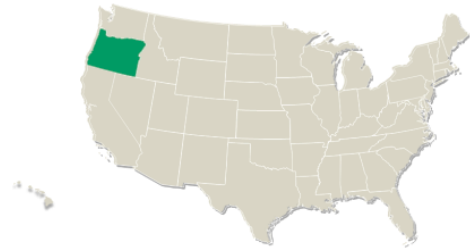




OREGON

Population: 3.9m

Website: www.oregon.gov/OLCC/pages/bottle_bill.aspx



MANDATE

The Beverage Container Act

Enacted:	1971
Implemented:	1972
Last Updated:	2011 (Redemption Centers) 2016 (Evaluate Deposit Level) 2018 (Expansion Effective)
Authority:	Oregon Liquor Control Commission (OLCC)

PROGRAM SCOPE

Material:	Plastic, metal (aluminum/tinplate), glass (any individual, separate, sealed glass, metal or plastic bottle, can, jar containing a beverage)
Beverage type:	<i>Beverages 4 oz. up to 1.5L:</i> coffee/tea; energy and sports drinks; fruit and vegetable juice (does not have to be 100%); juice smoothies; coconut water; non-alcohol wine; hard cider if 8.5% ABV or less; marijuana beverages; protein shakes (unless marketed as a meal replacement); Kombucha; cocktail mixers <i>Beverages ≤3L:</i> soda (carbonated/sparkling beverages); beer; water
Excluded:	Distilled liquor; wine; dairy or plant-based milks and milk substitutes; infant formula; meal-replacement drinks; alcoholic kombucha made with cane sugar; kefir; concentrates

DEPOSITS AND FEES

Deposit:	Initiated by Producer/Distributor/Importer
Deposit value:	Plastic, metal, glass: USD\$0.10
Unredeemed deposits:	Producer/Distributor/Importer
Handling Fee:	None

SYSTEM OPERATOR

Clearing System:	Centralized, Oregon Beverage Recycling Cooperative (OBRC)
System Operator & Administrator:	Beverage Industry
System Finance:	Material revenue/unredeemed deposits

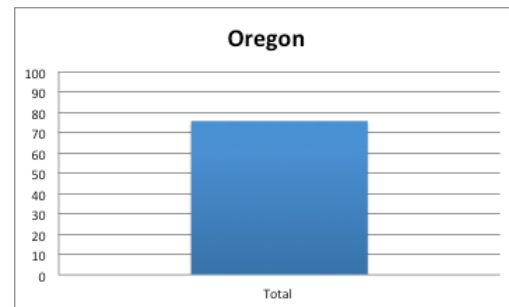
REDEMPTION SYSTEM

Return-to-Retail / R2RC	Note: Retail outlets ≥5,000 ft. ² are required to take back all brands and sizes of beverage containers for each kind they sell. Retailers <5,000 ft. ² may take back only brands and sizes that they sell.
Material owner:	Deposit Initiator

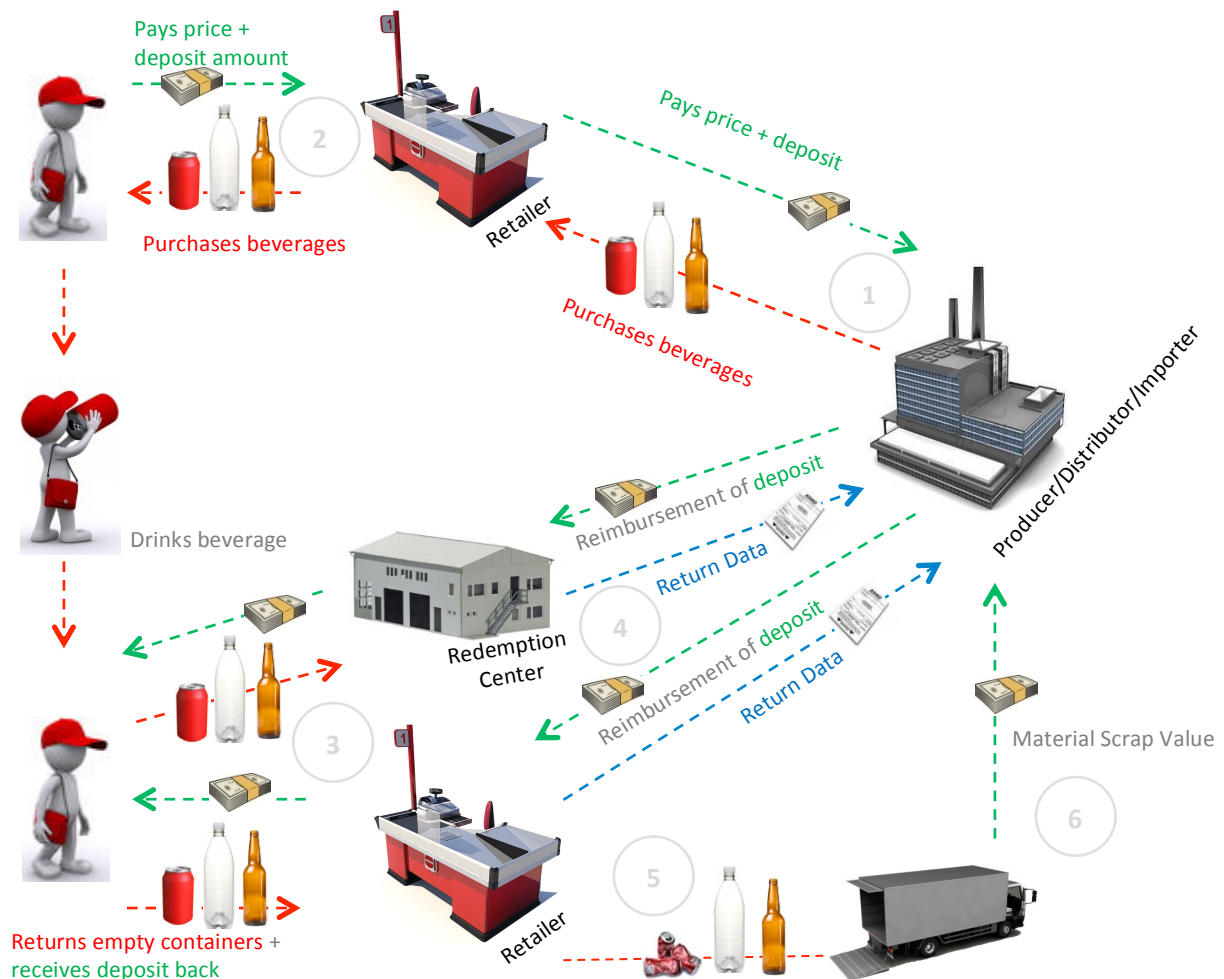
SYSTEM RESULTS (2017)

Total Return Rate: 75.7%

This number reflects an average for the year 2017. The deposit was raised from 5 cents to 10 cents on April 1. From January to March, the rate was 59%. From April to December the rate jumped to 82%



MONEY MATERIAL FLOW





VERMONT

Population: 0.6m

Website: <http://dec.vermont.gov/waste-management/solid/product-stewardship/bottle-bill>



MANDATE

Beverage Container Law (1972), Solid Waste Act (1987)	
Enacted:	1972
Implemented:	1973
Last Updated:	1991
Authority:	Agency of Natural Resources

PROGRAM SCOPE

Material:	Plastic, metal (aluminum/tinplate), glass (or any combination of these materials)
Beverage type:	Liquor & spirits; beer, wine coolers and other malt beverages; soft drinks and other carbonated beverages
Excluded:	Wine and hard cider; water; milk; juices; sports drinks; other non-carbonated beverages

DEPOSITS AND FEES

Deposit:	Initiated by Producer/Distributor/Importer
Deposit value:	Plastic, metal, glass: USD\$0.05 Liquor: USD\$0.15
Unredeemed deposits:	Producer/Distributor/Importer
Handling Fee:	USD\$0.04 for brand-sorted containers, USD\$0.035 for comingled

SYSTEM OPERATOR

Clearing System:	Decentralized, TOMRA
System Operator & Administrator:	Beverage Industry, TOMRA
System Finance:	Material Revenue/Unredeemed deposits

REDEMPTION SYSTEM

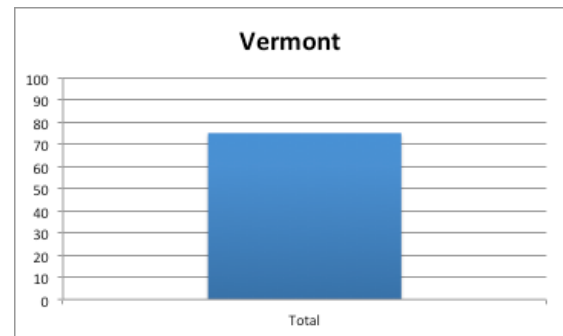
Return-to-Retail / Return to Redemption Center
Retailers can gain State approval to opt-out of the program if they are located near a licensed redemption centre.

Material owner:	Deposit Initiator
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SYSTEM RESULTS (2016)

Total Return Rate: 75%*

*Estimate is from a 2012-2013 study commissioned by the State.



MONEY MATERIAL FLOW

