

# USA

90.3 million have access to DRS

<i>State</i>	<i>Population 2019 (million)</i>	<i>Mandate Enacted</i>	<i>Mandate Implemented</i>
California	39.5	1986	1987, 2000 (all non-alcohol beverages, except milk)
Connecticut	3.6	1978	1980, 2009 (water)
Hawaii	1.4	2002	2005
Iowa	3.2	1978	1979
Maine	1.3	1976	1978, 1990 (wine, liquor, water and non-alcohol carbonated or non-carbonated beverages)
Massachusetts	6.9	1981	1983
Michigan	10.1	1976	1978
New York	19.5	1982	1983, 2009 (water)
Oregon	4.2	1971	1972, 2007 (non-carbonated water), 2018 (all beverages except wine, liquor, milk and milk substitutes)
Vermont	0.6	1972	1973

# CALIFORNIA

Population: 39.5 m

Website: [www.calrecycle.ca.gov/bevcontainer/](http://www.calrecycle.ca.gov/bevcontainer/)



## LEGISLATIVE FRAMEWORK

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**Mandate:** California Beverage Container Recycling and Litter Reduction Act

**Enacted:** 1986

**Implemented:** 1987, 2000

**Last updated:** 2012 (Enforcement & Payments)

**Authority:** CalRecycle (government operated)

**Targets:** 80% collection rate (Includes containers collected at curbside and redeemed via MRFs)

## PROGRAM SCOPE

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**Material:** Plastic, metal (aluminum, bimetal), glass

**Beverage type:** Beer and malt beverages, wine coolers, distilled spirit coolers, all non-alcohol beverages (carbonated and non-carbonated fruit drinks/water/soft drinks, coffee and tea beverages, 100% fruit juice ≤ 46 oz., vegetable juice ≤ 16 oz.)

**Excluded:** Milk, infant formula, wine, spirits, 100% fruit juice ≥ 46 oz., 100% vegetable juice > 16 oz.

## DEPOSITS AND FEES

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**Deposit initiator:** Producer/Distributor/Importer

**California Refund Value (CRV)<sup>1</sup>:**  
Containers < 24 oz (0.19 gal): USD\$ 0.05  
Containers ≥ 24 oz (0.19 gal): USD\$ 0.10

**Unredeemed deposits:** CalRecycle (placed into Beverage Container Recycling Fund)

<sup>1</sup>If the product purchased is subject to sales tax, then the CRV applied to that product is subject to sales tax

**Handling fees (2020):**  
USD\$ 0.00934  
(Paid to Convenience Zone Recycling Centers)

**Processing fees (2020):**  
USD\$ 0.00066 to USD\$ 0.13610  
(Paid by beverage manufacturers to CalRecycle)

**Processing payments (as of July 2020):**  
USD\$ 0.07662/lb to \$ 1.06438/lb  
(Paid by CalRecycle to all recycling centers when the cost of recycling exceeds the value of material)

# SYSTEM OPERATOR

## Clearing system:

Centralized

## System operator & administrator:

CalRecycle (Government operated)

## System finance:

Unredeemed deposits

# REDEMPTION SYSTEM

## Return-to-Retail/Return to Recycling Center/ Donate to Curbside:

There are approximately 1,253 state-certified recycling centers, which include redemption centers (supermarket redemption sites, rural redemption sites, and non-profit recycling centers) and retailers. Retailers that generate > \$ 2 million/year in revenue are obligated to help establish independently-run recycling centers in convenience zones (CZ). Retailers in CZs with no recycling center are obligated to accept empties in store, or pay a \$ 100 daily fee to the recycling program. Consumers can also donate their empties to a dropoff site or a curbside recycling program.

## Material owner:

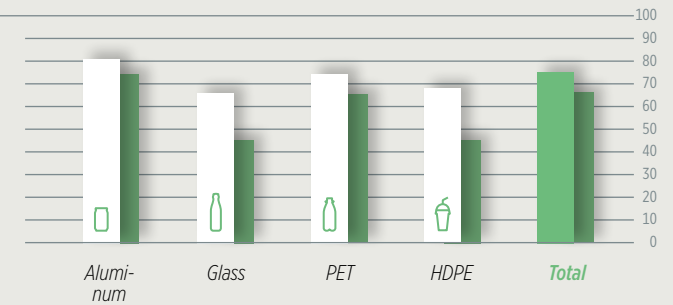
Recycling Centers and curbside (and other) program operators

<sup>2</sup> Other than Iowa, California is the only U.S. state that includes curbside collection in the "recycling rate" (all of the other states report a "redemption" rate), therefore the **left** rates include CRV containers collected through curbside collection and drop-off programs in addition to certified recycling centers. If these containers are excluded from the calculation, the estimated "redemption" rates for CRV containers are as **right**.

# SYSTEM RESULTS (2019)

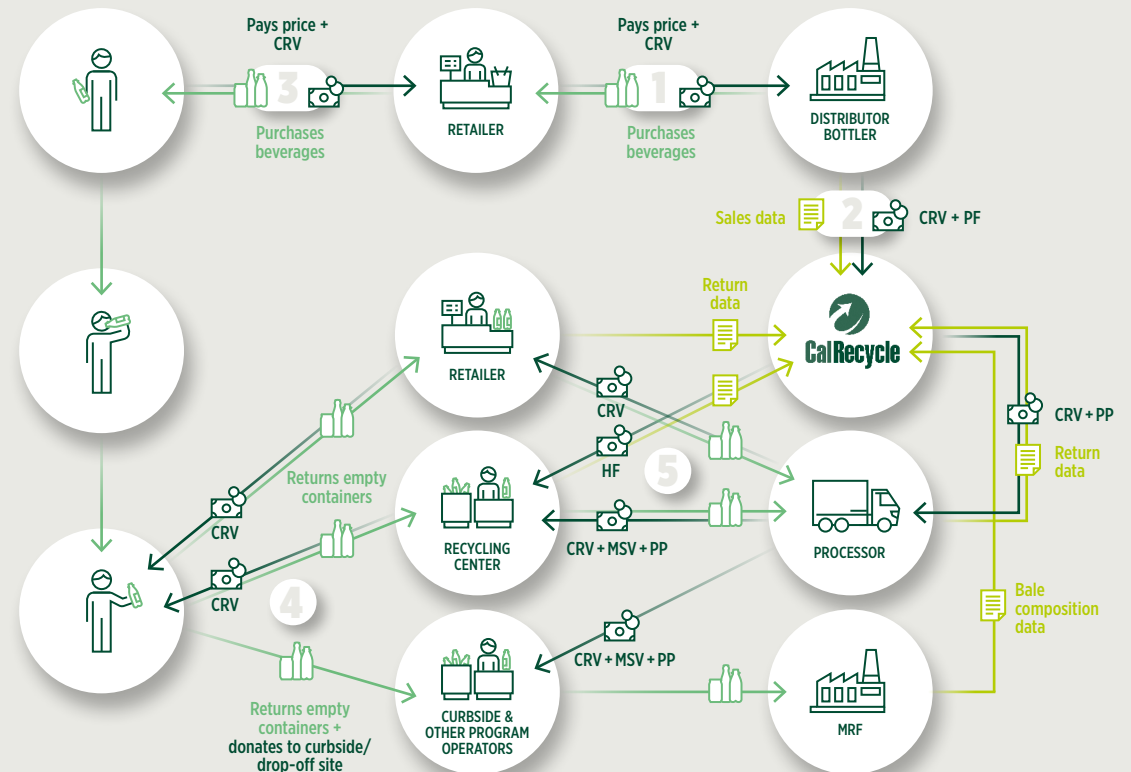
Aluminum	81%	74%
Glass	67%	45%
PET	74%	65%
HDPE	68%	47%

**Total Return Rate: 75%<sup>2</sup> 67%**



# MONEY MATERIAL FLOW

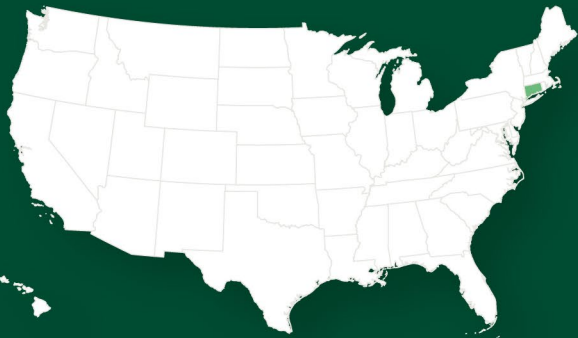
- CRV** California Refund Value
- PF** Processing fee
- PP** Processing payment
- MSV** Material scrap value
- HF** Handling fee



# CONNECTICUT

Population: 3.6 m

Website: [www.ct.gov/deep/cwp/view.asp?a=2714&q=324834](http://www.ct.gov/deep/cwp/view.asp?a=2714&q=324834)



## LEGISLATIVE FRAMEWORK

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**Mandate:** Beverage Container Deposit and Redemption Law

**Enacted:** 1978

**Implemented:** 1980

**Last updated:** 2009

**Authority:** Department of Energy and Environmental Protection

**Targets:** None

## PROGRAM SCOPE

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**Material:** Plastic (PET), metal (aluminum), glass

**Beverage type:**  
**Containers < 3 L (0.79 gal):** Beer, malt, carbonated soft drinks (including mineral waters and soda waters), non-carbonated water

**Excluded:** Other non-carbonated beverages, juices, wine, liquor

## DEPOSITS AND FEES

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**Deposit initiator:** Producer/Distributor/Importer

**Deposit value:** USD\$ 0.05

**Unredeemed deposits:** Escheated to State

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**Handling fees (2020):**

Beer or malt containers:	USD\$ 0.015
Other containers:	USD\$ 0.02

## SYSTEM OPERATOR

### Clearing system:

Decentralized

### System operator & administrator:

Beverage industry

### System finance:

System is funded directly by producers with privately arranged payments to contracted collectors, transporters, and processors.

## REDEMPTION SYSTEM

### Return-to-Retail / Return to Redemption Center:

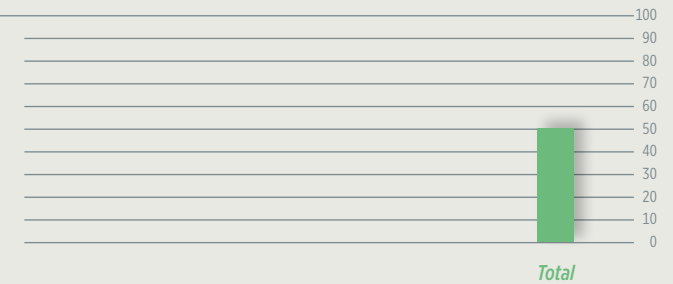
Stores are only required to take back the brands that they sell.

### Material owner:

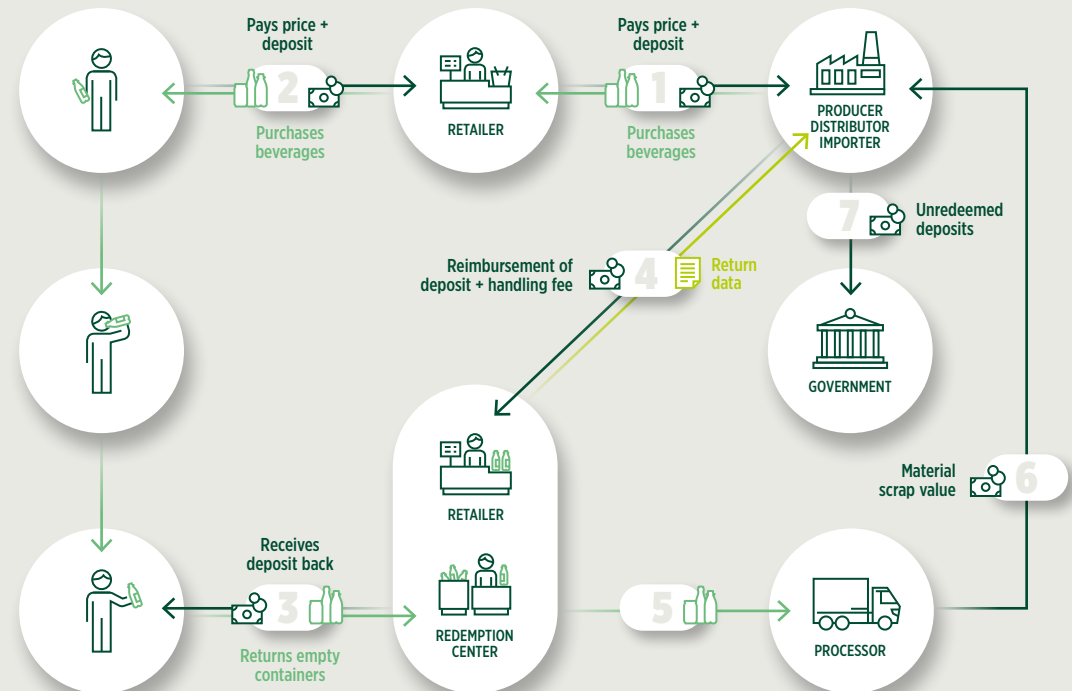
Producer/Distributor/Importer

## SYSTEM RESULTS (2019)

Total Return Rate: 50%



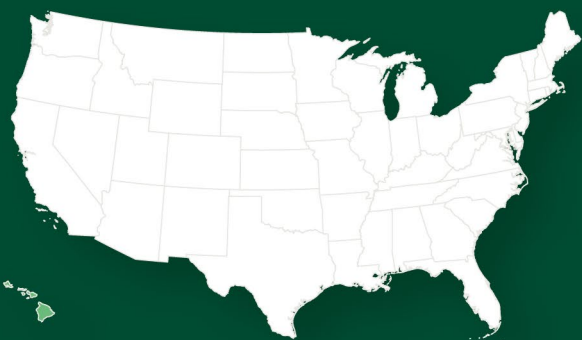
## MONEY MATERIAL FLOW



# HAWAII

Population: 1.4 m

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



## LEGISLATIVE FRAMEWORK

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**Mandate:** Deposit Beverage Container Law (Act 176)  
**Enacted:** 2002  
**Implemented:** 2005  
**Last updated:** 2013 (Energy Drinks & Dietary Supplements)  
**Authority:** Department of Health (Government operated)  
**Targets:** None

## PROGRAM SCOPE

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**Material:**  
Plastic (PET, HDPE), metal (aluminum, bi-metal), glass

**Beverage type:**  
**Containers  $\leq$  2 L (0.53 gal):**  
Beer, malt beverages, mixed spirits (< 15% alcohol content), mixed wine (< 7% alcohol content), all non-alcohol beverages (e.g. juice, tea, etc.)

**Excluded:**  
Wine, milk and dairy products, hard liquor

## DEPOSITS AND FEES

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**Deposit initiator:**  
Producer/Distributor/Importer

**Deposit value:**  
USD\$ 0.05

**Unredeemed deposits:**  
Placed into the HI-5 Fund (a state-managed fund)

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**Handling fees (2020):**  
USD\$ 0.03 to \$ 0.07

**Container fees:**  
USD\$ 0.01  
(Non-refundable fee paid by consumer on top of the deposit to fund redemption centers; the fee is \$ 0.015 when the redemption rate is above 70%)

## SYSTEM OPERATOR

### Clearing system:

Centralized

### System operator & administrator:

Department of Health

### System finance:

Unredeemed deposits, material revenues, and a non-refundable container fee

## 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. There are currently 67 redemption centers statewide.

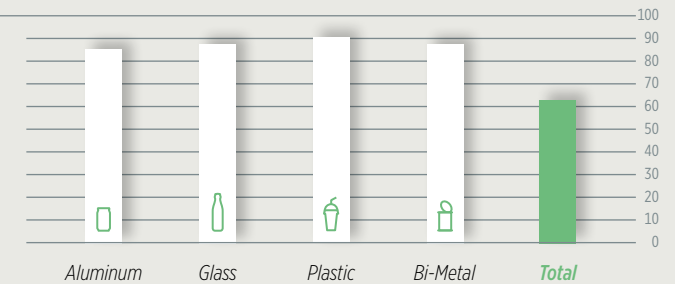
### Material owner:

Redemption Center

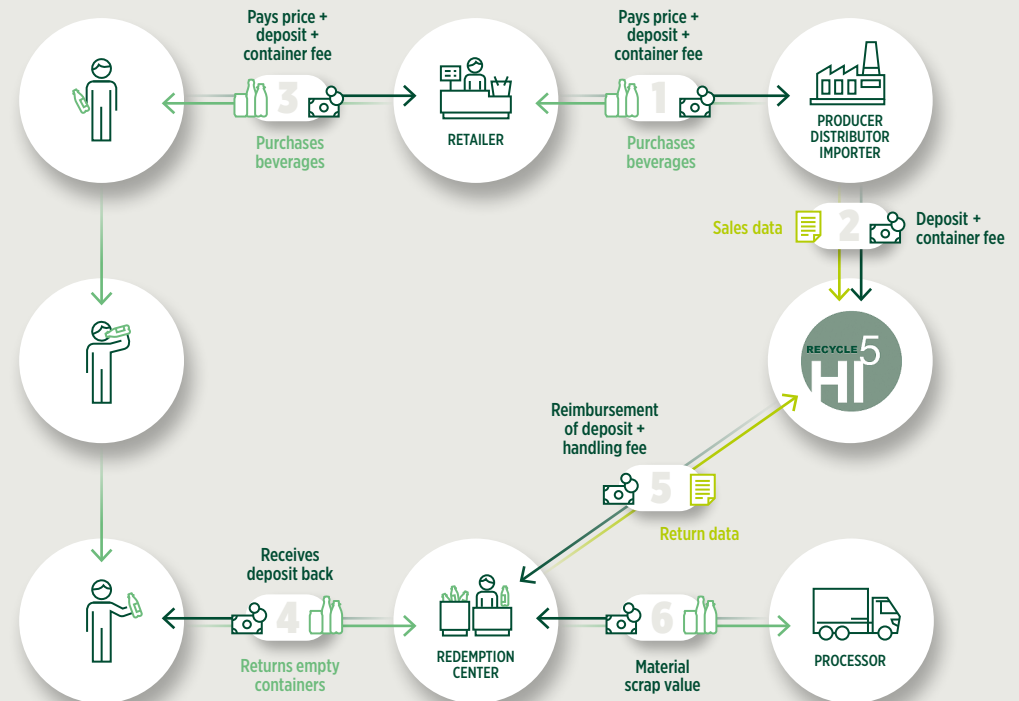
## SYSTEM RESULTS (2018-19)

Aluminum	71.3%
Glass	62.9%
Plastic	53.7%
Bi-Metal	70.2%

**Total Return Rate: 62.7%**



## MONEY MATERIAL FLOW

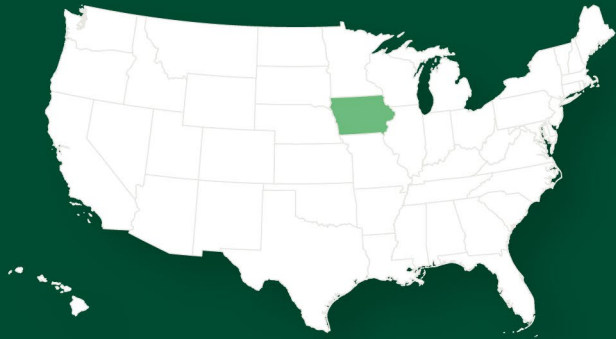




# IOWA

Population: 3.2 m

Website: [www.iowadnr.gov/Environmental-Protection/Land-Quality/Waste-Planning-Recycling/Bottle-Deposit-Law](http://www.iowadnr.gov/Environmental-Protection/Land-Quality/Waste-Planning-Recycling/Bottle-Deposit-Law)



## LEGISLATIVE FRAMEWORK

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**Mandate:** Beverage Containers Control Law  
**Enacted:** 1978  
**Implemented:** 1979  
**Authority:** Iowa Department of Natural Resources (DNR)  
**Targets:** None

## PROGRAM SCOPE

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**Material:**  
Plastic, metal, glass

**Beverage type:**  
Beer, wine coolers, wine and liquor, carbonated soft drinks, mineral water

**Excluded:**  
Non-carbonated, non-mineral water (bottled water), fruit and vegetable juices, fruit drinks, milk and milk products

## DEPOSITS AND FEES

---

**Deposit initiator:**  
Producer/Distributor/Importer

**Deposit value:**  
USD\$0.05

**Unredeemed deposits:**  
Producer/Distributor/Importer

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**Handling fees (2020):**  
USD\$ 0.01  
(paid to retailers and redemption centers)

## SYSTEM OPERATOR

### Clearing system:

Decentralized

### System operator & administrator:

Deposit initiators

### System finance:

Unredeemed deposits, material revenues

## REDEMPTION SYSTEM

### Return-to-Retail/Return to Redemption Center:

Retailers are required to accept empties of the products they sell. However, a retailer can use an approved redemption center that is certified by the Iowa DNR in place of accepting empties at their store.

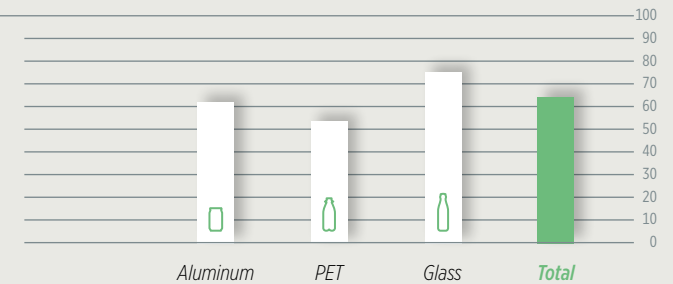
### Material owner:

Producer/Distributor/Importer

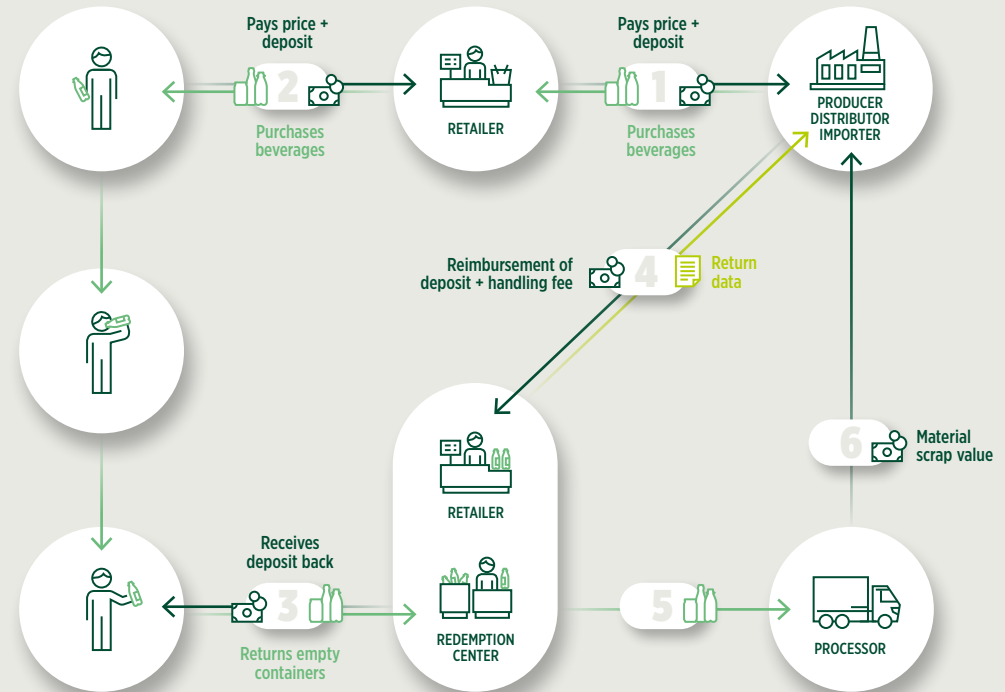
## SYSTEM RESULTS (2016)

Aluminum	62%
PET	53%
Glass	76%

Total Return Rate: 64%<sup>1</sup>



## MONEY MATERIAL FLOW

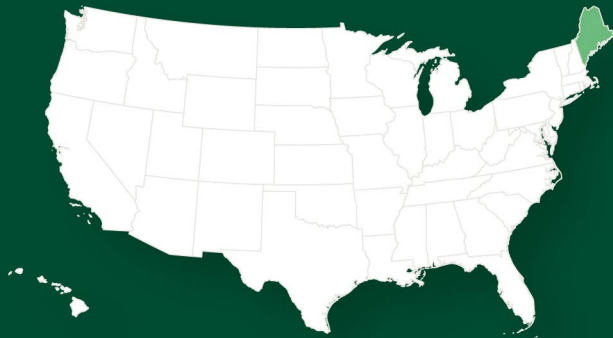


<sup>1</sup> Note: The State of Iowa does not collect sales or returns data on deposit containers. Material-specific redemption rates were calculated by the Container Recycling Institute (CRI) and the DNR while analyzing "Final 2017 Iowa Statewide Waste Characterization Study," SCS Engineers for Iowa DNR, 12/28/17. The rates shown reflect deductions made for deposit containers recycled through curbside and dropoff programs, using curbside and dropoff percentages from California (2012 and 2016) as proxies. In other words, the rates shown above exclude CRV containers recycled through curbside and dropoff programs.

# MAINE

Population: 1.3 m

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



## LEGISLATIVE FRAMEWORK

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**Mandate:** Maine Returnable Beverage Container Law  
**Enacted:** 1976  
**Implemented:** 1978, 1990  
**Last updated:** 2017  
**Authority:** Maine Department of Environmental Protection  
**Targets:** None

## PROGRAM SCOPE

---

**Material:**  
Glass, plastic, metal

**Beverage type:**  
**Containers ≤ 4 L (1.06 gal):**  
Beer, ale or other drink produced by fermenting malt, spirits (including 50 ml (0.01 gal) liquor known as 'nips'), wine, hard cider, wine coolers, soda, non-carbonated water, non-alcohol carbonated or non-carbonated drinks in liquid form and intended for human consumption

**Excluded:**  
Unflavoured milk and milk substitutes, certain containers composed of a combination of aluminum and plastic/paper filled with non-alcohol beverages, Maine-produced juices and cider, infant formula, nutritional supplements, products frozen at sale or intended for consumption in a frozen state, paper or cardboard containers

## DEPOSITS AND FEES

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**Deposit initiator:**  
Producer/Distributor/Importer

**Deposit value:**  
Wine and spirits > 50 mL: USD\$ 0.15  
All other beverages: USD\$ 0.05

**Unredeemed deposits:**  
Escheated to State, however deposit initiators that sell a majority of the deposit containers are allowed to form a 'Commingling Group' and recoup unredeemed deposits associated with the sale of their containers.

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**Handling fees (2020):**  
USD\$ 0.045  
(\$ 0.035 for containers subject to a qualified commingling agreement; \$ 0.03 for containers for a brewer that produces no more than 50,000 gallons of product or a water bottler who sells no more than 250,000 containers of up to 1 gallon annually.)

## SYSTEM OPERATOR

### Clearing system:

Decentralized

### System administrator:

Maine Department of Environmental Protection

### System operator:

Beverage industry

### System finance:

Material revenues

## REDEMPTION SYSTEM

### Return-to-Retail/Return to Redemption Center:

All retailers who sell beverages are required to take back the empty beverage containers they sell plus some redemption centers. There are currently 449 redemption centers licensed by the DEP. Retailers can opt-out if they have an agreement with a nearby redemption center.

### Material owner:

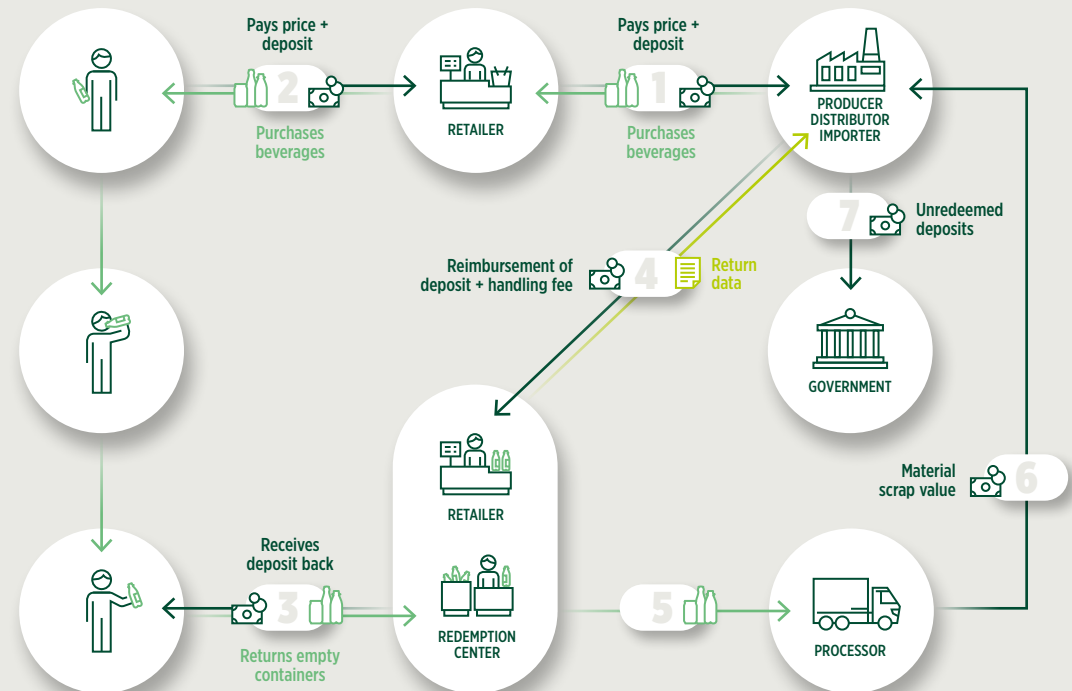
Producer/Distributor/Importer

## SYSTEM RESULTS (2017)

Total Return Rate: 84%



## MONEY MATERIAL FLOW



# MASSACHUSETTS

Population: 6.9 m

Website: [www.mass.gov/eea/agencies/massdep/recycle/reduce/bottle-and-can-recycling.html](http://www.mass.gov/eea/agencies/massdep/recycle/reduce/bottle-and-can-recycling.html)



## LEGISLATIVE FRAMEWORK

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**Mandate:** Beverage Container Recovery Law  
**Enacted:** 1981  
**Implemented:** 1983  
**Last updated:** 2013  
**Authority:** Massachusetts Department of Environmental Protection  
**Targets:** None

## PROGRAM SCOPE

---

**Material:**  
Plastic, metal (aluminum, bimetal), glass

**Beverage type:**  
Beer, malt, carbonated soft drinks, mineral water

**Excluded:**  
Non-carbonated beverages other than mineral water (e.g., non-carbonated, non-alcohol water), wine, dairy products, liquor, natural fruit juices, non-carbonated alcohol beverages other than beer and malt

## DEPOSITS AND FEES

---

**Deposit initiator:**  
Producer/Distributor/Importer

**Deposit value:**  
USD\$ 0.05

**Unredeemed deposits:**  
Escheated to State

---

**Handling fees (2020):**  
USD\$ 0.0225 for retailers  
(receive free pick-up of containers by deposit initiators)

USD\$ 0.0325 for redemption centers  
(RCs must deliver redeemed containers to central processing facility)

## SYSTEM OPERATOR

### Clearing system:

Decentralized

### System operator & administrator:

Beverage industry, TOMRA

### System finance:

Material revenues

## REDEMPTION SYSTEM

### Return-to-Retail/Return to Redemption Center:

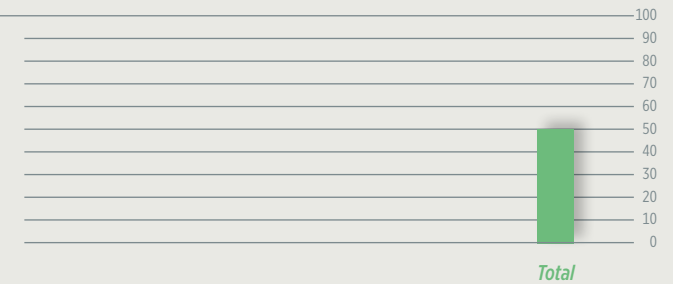
All retailers who sell beverages are required to take back the empty beverage containers they sell plus some redemption centers. There are currently 800+ retailers utilizing RVMs, and 900+ retailers redeeming manually. There are also currently 60+ redemption centers.

### Material owner:

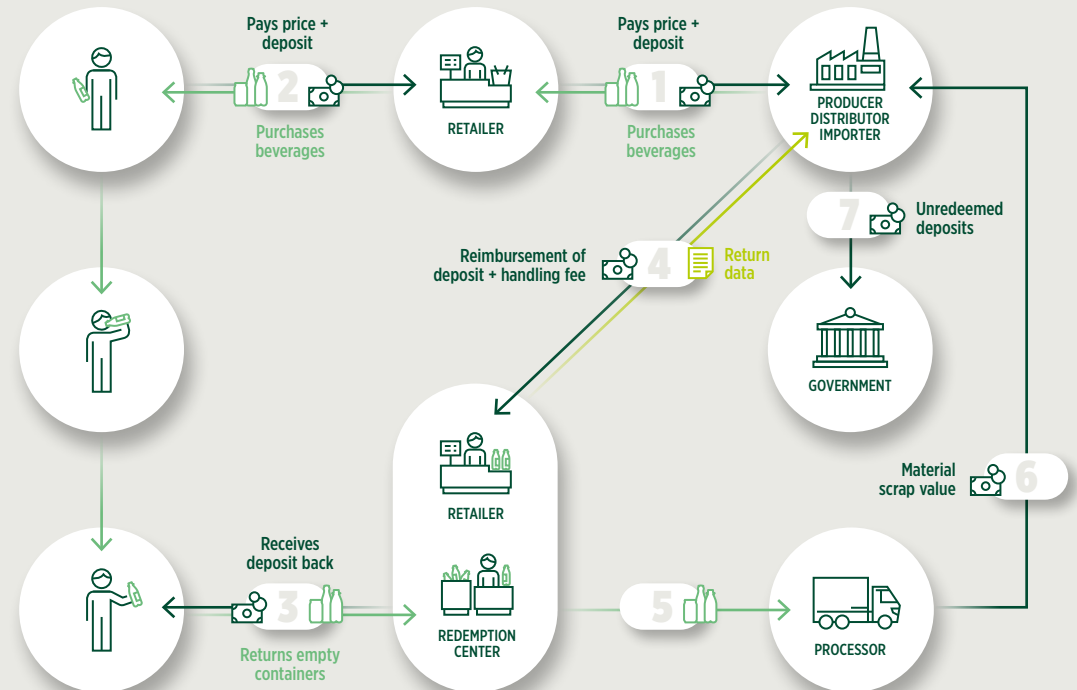
Producer/Distributor/Importer

## SYSTEM RESULTS (2019)

Total Return Rate: 50%



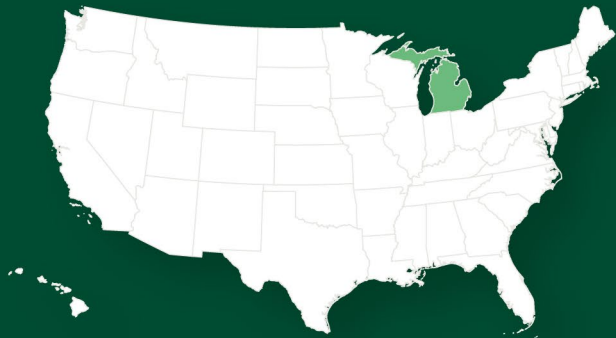
## MONEY MATERIAL FLOW



# MICHIGAN

Population: 10.1 m

Website: <https://www.michigan.gov/treasury/>



## LEGISLATIVE FRAMEWORK

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**Mandate:** Michigan Container Law  
**Enacted:** 1976  
**Implemented:** 1978  
**Last updated:** 2012  
**Authority:** Michigan Department of Treasury  
**Targets:** None

## PROGRAM SCOPE

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**Material:**  
Plastic, metal (aluminum/tinplate), glass, liquid paperboard

**Beverage type:**  
**Containers < 3.78 L (1 gal):**  
Beer/ale, soft drinks, carbonated and mineral water, wine coolers, canned cocktails, malt drink of whatever alcohol content

**Excluded:**  
Non-carbonated beverages other than mineral water (e.g. juice, coffee, tea, non-carbonated water), milk, sport drinks, wine, liquor, foil pouches

## DEPOSITS AND FEES

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**Deposit initiator:**  
Producer/Distributor/Importer

**Deposit value:**  
USD\$ 0.10

**Unredeemed deposits:**  
75% escheated to State (to Clean-up and Redevelopment Trust Fund) / 25% available to retailers to cover handling costs

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**Handling fees:**  
None (there is technically no handling fee, however 25% of unredeemed deposits are paid out to retailers in proportion to the number of containers they redeem)

## SYSTEM OPERATOR

### Clearing system:

Decentralized (Michigan Soft Drink Association (MSDA), Michigan Beer & Wine Wholesalers Association (MBWWA))

### System operator & administrator:

Beverage industry

### System finance:

Material revenues

## REDEMPTION SYSTEM

### Return-to-Retail:

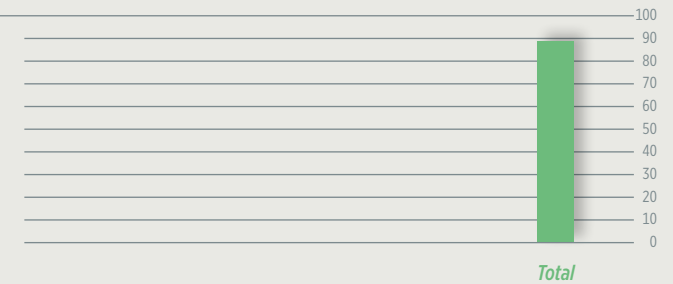
Stores only need to take back brands they sell. There are currently approximately 5,600 beverage dealers in the state.

### Material owner:

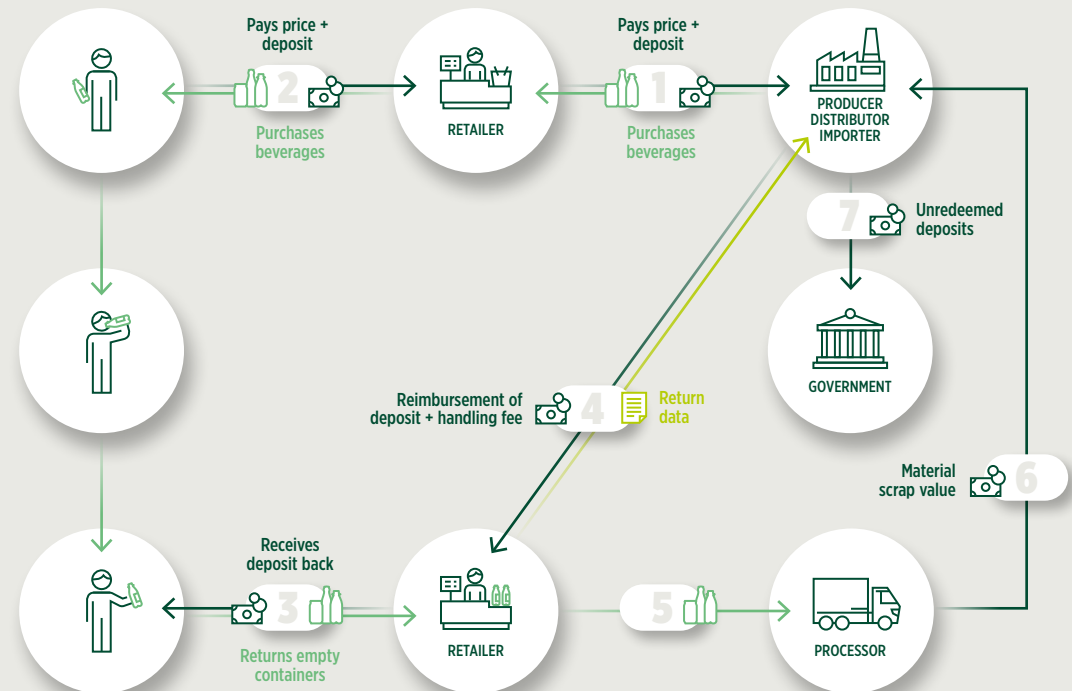
Producer/Distributor/Importer

## SYSTEM RESULTS (2019)

Total Return Rate: 88.7%



## MONEY MATERIAL FLOW

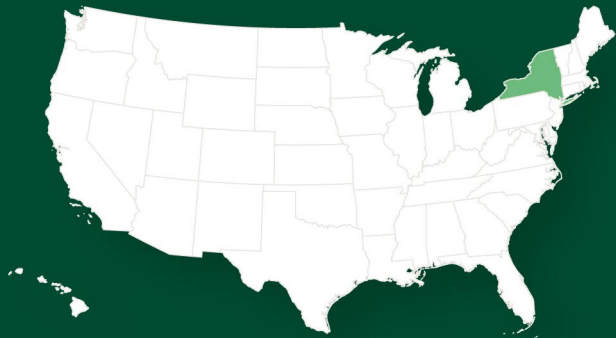




# NEW YORK

Population: 19.5 m

Website: [www.dec.ny.gov/chemical/8500.html](http://www.dec.ny.gov/chemical/8500.html)



## LEGISLATIVE FRAMEWORK

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**Mandate:** New York State Returnable Container Act  
**Enacted:** 1982  
**Implemented:** 1983, 2009 (Water)  
**Last updated:** 2012  
**Authority:** New York State Department of Environmental Conservation  
**Targets:** None

## PROGRAM SCOPE

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**Material:**  
Plastic, metal (aluminum, steel), glass

**Beverage type:**  
**Containers  $\leq$  3.78 L (1 gal):**  
Carbonated soft drinks, soda water, carbonated energy drinks, 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

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**Deposit initiator:**  
Producer/Distributor/Importer

**Deposit value:**  
USD\$ 0.05

**Unredeemed deposits:**  
80% escheated to the New York State Department of Taxation and Finance (quarterly basis); 20% retained by deposit initiator

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**Handling fees (2020):**  
USD\$ 0.035

## SYSTEM OPERATOR

### Clearing system:

Decentralized

### System operator & administrator:

Beverage Industry; TOMRA New York Recycling, Western New York Beverage Industry Collection & Sorting (WNYBICS)

### System finance:

Material revenues, 20% of unredeemed deposits

## REDEMPTION SYSTEM

### Return-to-Retail/Return to Redemption Center:

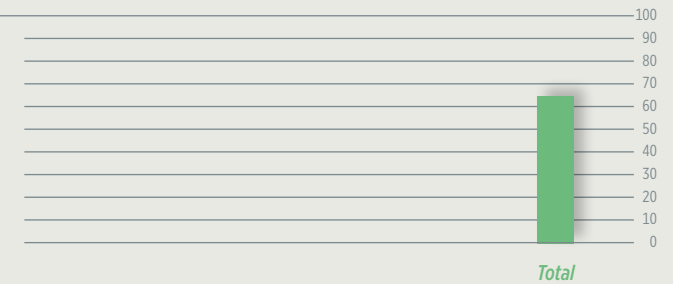
All retailers who sell beverages are required to take back the empty beverage containers they sell plus some redemption centers.

### Material owner:

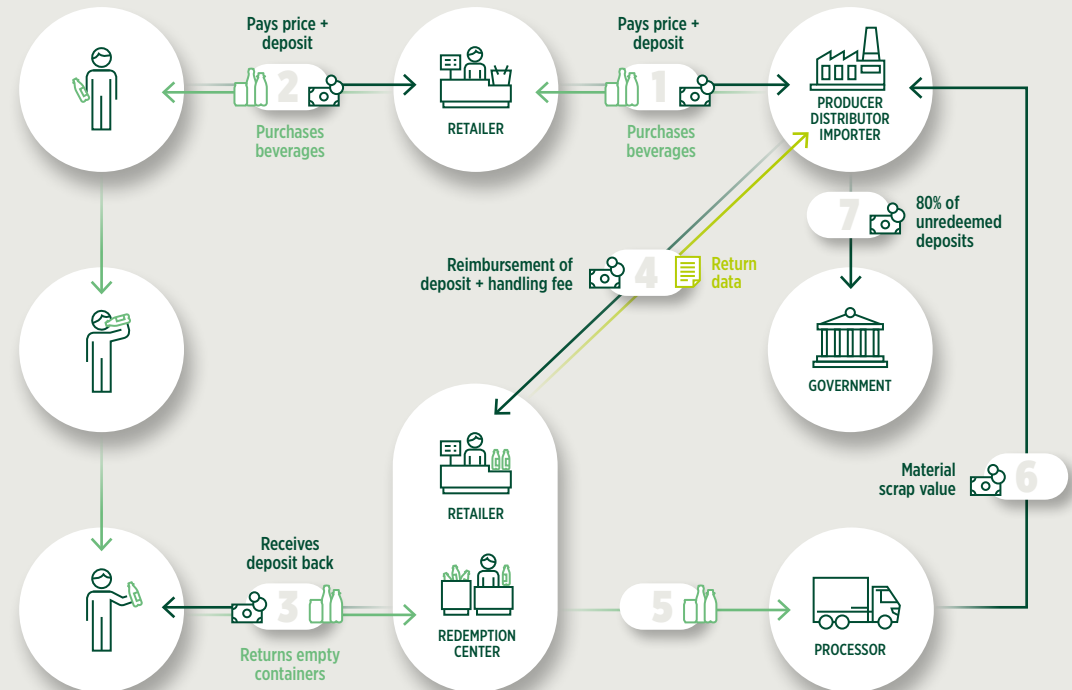
Producer/Distributor/Importer

## SYSTEM RESULTS (2019)

Total Return Rate: 64%



## MONEY MATERIAL FLOW



# OREGON

Population: 4.2 m

Websites: [www.oregon.gov/OLCC/pages/bottle\\_bill.aspx](http://www.oregon.gov/OLCC/pages/bottle_bill.aspx)  
<https://obrc.com/>



## LEGISLATIVE FRAMEWORK

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**Mandate:** The Beverage Container Act  
**Enacted:** 1971  
**Implemented:** 1972  
**Last updated:** 2007 (bottled water and flavored water), 2017 (deposit increase), 2018 (expansion to all beverages with some exceptions)  
**Authority:** Oregon Liquor Control Commission (OLCC)  
**Targets:** Collection target of 80%

## PROGRAM SCOPE

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**Material:**  
Plastic, metal (aluminum/tinplate), glass

**Beverage type:**  
**Containers 4 oz. (0.03 gal) to 1.5 L (0.4 gal):**  
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

**Containers ≤ 3 L (0.79 gal):**  
Soda (carbonated/sparkling beverages), beer, water

**Excluded:**  
Distilled liquor, wine, dairy or plant-based milks and milk substitutes, infant formula, meal-replacement drinks, alcohol kombucha made with cane sugar, kefir, concentrates

## DEPOSITS AND FEES

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**Deposit initiator:**  
Producer/Distributor/Importer

**Deposit value:**  
USD\$ 0.10

**Unredeemed deposits:**  
Oregon Beverage Container Recycling Cooperative (OBRC)

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**Handling fees:**  
Technically none, however OBRC directly funds redemption centers

## SYSTEM OPERATOR

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**Clearing system:**  
Centralized (OBRC)

**System operator & administrator:**  
Beverage industry

**System finance:**  
Material revenues, unredeemed deposits

## REDEMPTION SYSTEM

### Return-to-Retail/Return to Redemption Centers:

All retailers who sell beverages are required to take back the empty beverages they sell plus some redemption sites. There are currently over 2,300 return locations, including 25 redemption centers (276 RVMs), 30 BottleDrop Express sites, and 2,254 retail drop off sites (360 RVMs).

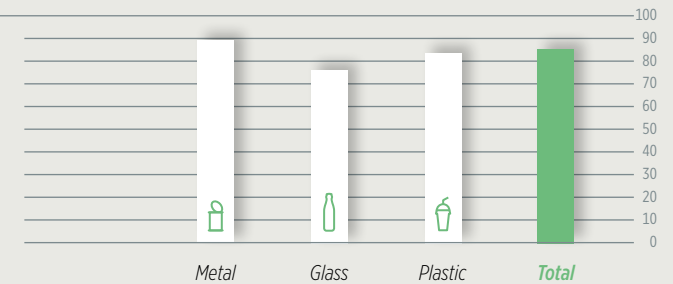
### Material owner:

OBRC (all scrap value is returned to OBRC members proportional to the volume and type of material they sell)

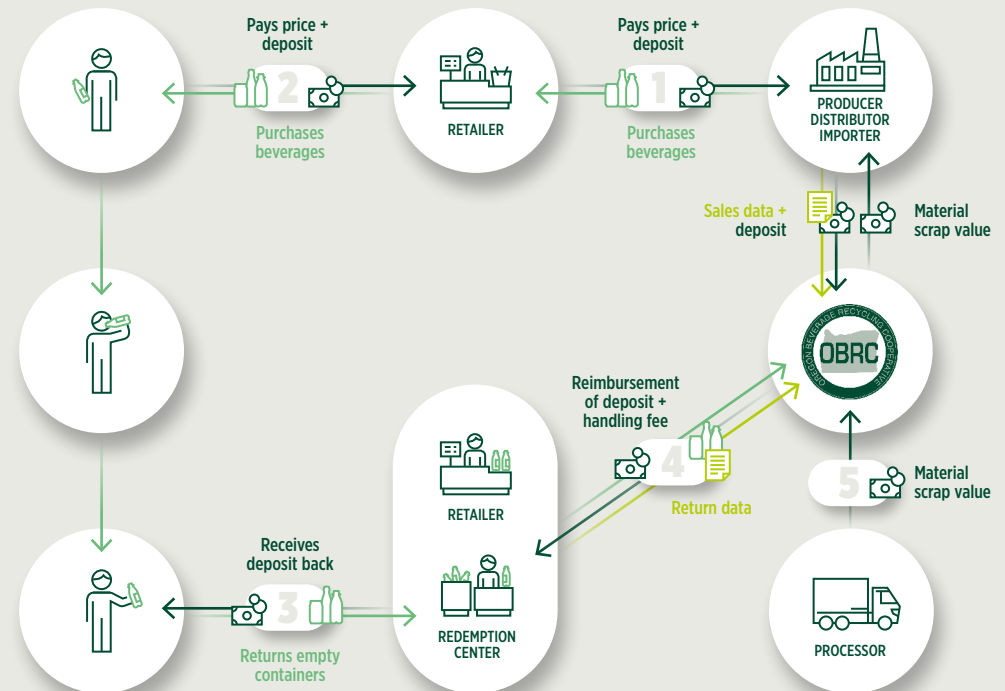
## SYSTEM RESULTS (2019)

Metal	89.6%
Glass	76.8%
Plastic	83.5%

**Total Return Rate: 85.8%<sup>1</sup>**



## MONEY MATERIAL FLOW

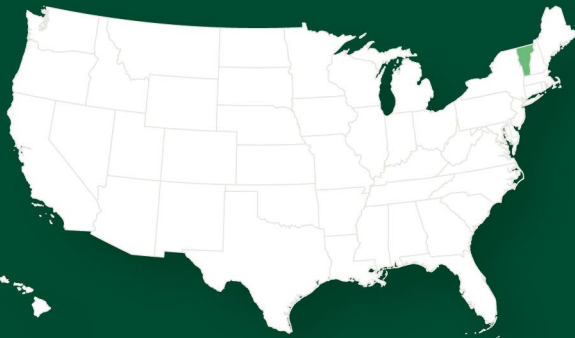


<sup>1</sup> Note: Deposit initiators within OBRC, which covers the vast majority of deposit containers sold in the state, reported a 2019 return rate of 90%.

# VERMONT

Population: 0.6 m

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



## LEGISLATIVE FRAMEWORK

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**Mandate:** Beverage Container Law (1972) and Solid Waste Act (1987)  
**Enacted:** 1972  
**Implemented:** 1973  
**Last updated:** 1991  
**Authority:** Agency of Natural Resources  
**Targets:** None

## PROGRAM SCOPE

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**Material:**  
Plastic, metal (aluminum/tinplate), glass

**Beverage type:**  
Liquor and 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

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**Deposit initiator:**  
Producer/Distributor/Importer

**Deposit value:**  
Liquor: USD\$ 0.15  
Other beverages: USD\$ 0.05

**Unredeemed deposits:**  
Escheated to State for use on clean water programs

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**Handling fees (2020):**  
USD\$ 0.04 for brand-sorted containers  
USD\$ 0.035 for comingled containers

## SYSTEM OPERATOR

### Clearing system:

Decentralized

### System operator & administrator:

Beverage industry

### System finance:

Material revenues

## REDEMPTION SYSTEM

### Return-to-Retail/Return to Redemption Center:

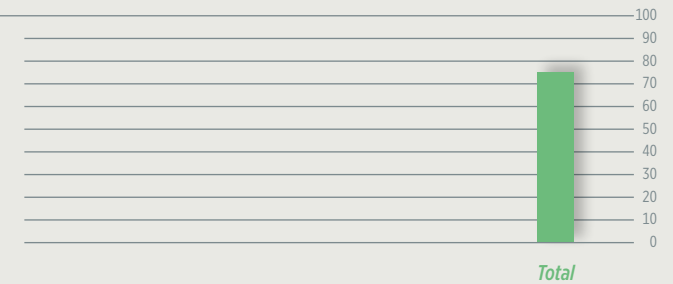
All retailers who sell beverages are required to take back the empty beverage containers they sell, but can apply for an exemption from this requirement if they are located near a licensed redemption center. Redemption centers must accept all covered beverage containers.

### Material owner:

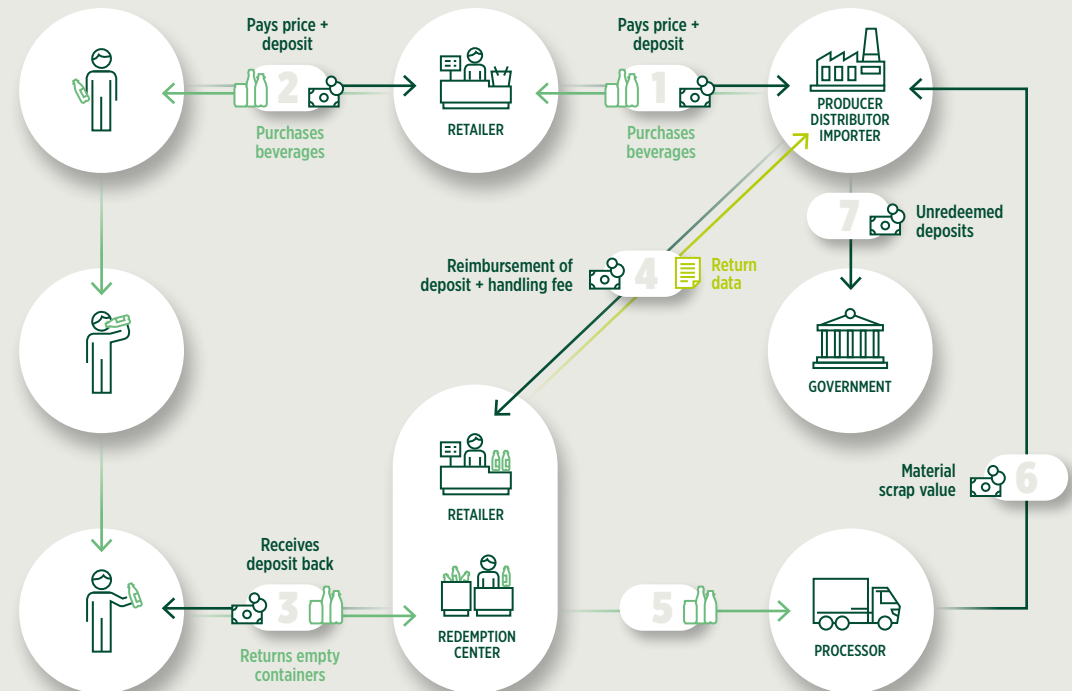
Producer/Distributor/Importer

## SYSTEM RESULTS (2013)

Total Return Rate: 75%<sup>1</sup>



## MONEY MATERIAL FLOW



<sup>1</sup> Estimate is from a 2012–2013 study commissioned by the State, as the redemption rate has not been measured and reported on annually. All retailers who sell beverages are required to take back the empty beverages they sell plus some redemption sites. There are currently over 2,300 return locations, including 25 redemption centers (276 RVMs), 30 BottleDrop Express sites, and 2,254 retail drop off sites (360 RVMs).