

**Material-Specific Beverage Container Redemption Rates for U.S. Deposit States, 2013-2023**

| <b>California</b> | <b>FY</b>                      | <b>FY</b>   | <b>FY</b>   | <b>FY</b>   | <b>FY</b>   | <b>FY</b>    | <b>FY</b>   | <b>FY</b>   | <b>FY</b>   | <b>FY</b>   | <b>FY</b>   | <b>California</b> |
|-------------------|--------------------------------|-------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------------|
|                   | <b>2013</b>                    | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b>  | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> |                   |
| Aluminum          | 92%                            | 91%         | 92%         | 86%         | 81%         | 76%          | 74%         | 64%         | 63%         | 64%         | 66%         | Aluminum          |
| Glass             | 61%                            | 57%         | 74%         | 50%         | 49%         | 47%          | 45%         | 39%         | 41%         | 40%         | 43%         | Glass             |
| PET               | 61%                            | 60%         | 78%         | 68%         | 64%         | 63%          | 66%         | 57%         | 56%         | 59%         | 61%         | PET               |
| HDPE              | 35%                            | 61%         | 70%         | 48%         | 41%         | 41%          | 43%         | 35%         | 32%         | 32%         | 36%         | HDPE              |
| Others (a)        | ----- See note (a) below ----- |             |             |             |             |              |             |             |             |             |             | Others**          |
| <b>Overall</b>    | <b>74%</b>                     | <b>71%</b>  | <b>82%</b>  | <b>72%</b>  | <b>68%</b>  | <b>66.2%</b> | <b>67%</b>  | <b>58%</b>  | <b>58%</b>  | <b>60%</b>  | <b>59%</b>  | <b>Overall</b>    |

| <b>Hawaii</b>      | <b>FY</b>   | <b>FY</b>   | <b>FY</b>   | <b>CY</b>   | <b>FY</b>   | <b>FY</b>   | <b>FY</b>   | <b>FY</b>   | <b>FY</b>   | <b>FY</b>   | <b>FY</b>   | <b>Hawaii</b>  |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|
|                    | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> |                |
| Aluminum           | 79%         | 77%         | 75%         | 71%         | 70%         | 0%          | 71%         | 66%         | 67%         | 65%         | 62%         | Aluminum       |
| BiMetal            | 101%        | 122%        | 103%        | 73%         | 64%         | 0%          | 72%         | 49%         | 56%         | 70%         | 70%         | BiMetal        |
| Glass              | 72%         | 70%         | 65%         | 61%         | 59%         | 0%          | 63%         | 61%         | 60%         | 56%         | 50%         | Glass          |
| Plastic            | 69%         | 65%         | 59%         | 61%         | 57%         | 0%          | 54%         | 57%         | 57%         | 53%         | 48%         | Plastic        |
| <b>Overall (b)</b> | <b>74%</b>  | <b>71%</b>  | <b>67%</b>  | <b>65%</b>  | <b>63%</b>  | <b>0%</b>   | <b>63%</b>  | <b>62%</b>  | <b>62%</b>  | <b>59%</b>  | <b>55%</b>  | <b>Overall</b> |

| <b>Oregon</b>  | <b>CY</b>   | <b>CY</b>   | <b>CY</b>   | <b>CY</b>   | <b>CY</b>   | <b>CY</b>   | <b>CY</b>   | <b>CY</b>   | <b>CY</b>   | <b>CY</b>   | <b>CY</b>   | <b>Oregon</b>  |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|
|                | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> |                |
| Metal          | 76%         | 74%         | 71%         | 70%         | 78%         | 87%         | 90%         | 81%         | 83%         | 88%         | 88%         | Metal          |
| Glass          | 75%         | 72%         | 68%         | 65%         | 67%         | 76%         | 77%         | 67%         | 74%         | 77%         | 77%         | Glass          |
| Plastic        | 58%         | 55%         | 52%         | 55%         | 68%         | 75%         | 83%         | 75%         | 78%         | 84%         | 84%         | Plastic        |
| <b>Overall</b> | <b>71%</b>  | <b>68%</b>  | <b>64%</b>  | <b>64%</b>  | <b>73%</b>  | <b>81%</b>  | <b>86%</b>  | <b>77%</b>  | <b>81%</b>  | <b>86%</b>  | <b>86%</b>  | <b>Overall</b> |

| <b>Maine</b>   | <b>CY</b>   | <b>CY</b>   | <b>CY</b>   | <b>CY</b>   | <b>CY</b>   | <b>CY</b>   | <b>CY</b>   | <b>CY</b>           | <b>CY</b>   | <b>CY</b>   | <b>CY</b>    | <b>Maine</b>   |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------|-------------|-------------|--------------|----------------|
|                | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020 Prelim.</b> | <b>2021</b> | <b>2022</b> | <b>2023*</b> |                |
| Metal          |             |             |             |             | n/a         |             |             | 85%                 |             |             | 80%          | Metal          |
| Glass          |             |             |             |             | n/a         |             |             | 76%                 |             |             | 80%          | Glass          |
| Plastic        |             |             |             |             | n/a         |             |             | 76%                 |             |             | 72%          | Plastic        |
| <b>Overall</b> |             |             |             |             | <b>84%</b>  |             |             | <b>76%</b>          | <b>78%</b>  |             | <b>77%*</b>  | <b>Overall</b> |

| <b>Iowa</b>    | <b>2012 (c)</b> | <b>2016 (d)</b> | <b>2022</b> | <b>2023</b> | <b>Iowa</b>    |
|----------------|-----------------|-----------------|-------------|-------------|----------------|
| Aluminum       | 84%             | 69%             | 42%         |             | Aluminum       |
| Glass          | 63%             | 83%             | 76%         |             | Glass          |
| Plastic        | 64%             | 85%             | 56%         |             | Plastic        |
| <b>Overall</b> | <b>78%</b>      | <b>67%</b>      | <b>49%</b>  |             | <b>Overall</b> |

See notes and sources on the following page.

Source (for citation purposes): "Material-Specific Beverage Container Redemption Rates for U.S. Deposit States, 2013-2024," Container Recycling Institute, 2024.

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\* Maine data is partial reporting, may be subject to change in the future

## Notes and sources for Material-Specific Beverage Container Redemption Rates for U.S. Deposit States, 2013-2024

### General

CY= calendar year, FY = fiscal year.

Deposit states not listed here do not provide redemption data at the individual material level.

### California

Redemption data shown represent reported recycling rates\* multiplied by material-specific, weight-based "participant shares" returned for refund at supermarket sites and recycling centers, per CalRecycle annual Fact Sheets.

Sources for recycling rates:

2023: "Biannual Report of Beverage Container Sales, Returns, Redemption, and Recycling Rates." CalRecycle, 5/4/24.

2022: "Biannual Report of Beverage Container Sales, Returns, Redemption, and Recycling Rates." CalRecycle, 9/21/23.

2021: "Biannual Report of Beverage Container Sales, Returns, Redemption, and Recycling Rates." CalRecycle, 4/26/22.

2020: "Biannual Report of Beverage Container Sales, Returns, Redemption, and Recycling Rates." CalRecycle, 11/6/21.

2019 & 2018: "Biannual Report of Beverage Container Sales, Returns, Redemption, and Recycling Rates." CalRecycle, 5/11/20.

2017: "Biannual Report of Beverage Container Sales, Returns, Redemption, and Recycling Rates." CalRecycle, 12/19/19.

2016: "Biannual Report of Beverage Container Sales, Returns, Redemption, and Recycling Rates." CalRecycle, 11/7/18.

2013-2015: "Q1-Q3 FY 2015-16 Quarterly Reports Data Supplement" to "Quarterly Report on the Status of the Beverage Container Recycling Fund (FY 2015-16 - 3rd Quarter)." CalRecycle, July 2016.

NOTE: The *redemption* rates shown here do not correspond to the *recycling* rates used in CRI's Beverage Market Data Analysis (2021) for two reasons:

1) We derived *redemption* rates here by multiplying CalRecycle-reported recycling rates by the proportion of each material *redeemed* at recycling centers and supermarkets; 2) In the BMDA, we generate "hybrid" *recycling rates* by dividing CalRecycle-reported units recycled by CRI-derived units sold, because our research indicates different [higher] sales numbers than those reported by CalRecycle.

(a) There are 5 other material types in the California program, but together they only comprise about 1% of materials in the program. The recycling rates for these materials are shown on CalRecycle's Fact Sheets.

### Hawaii

2023: Personal communication with Hawaii State Department of Health, Solid & Hazardous Waste Branch, Office of Solid Waste Management: 7/12/24.

Personal communication with Hawaii State Department of Health, Solid & Hazardous Waste Branch, Office of Solid Waste Management: 5/5/23, 4/19/23.

Personal communication with Hawaii State Department of Health, Solid & Hazardous Waste Branch, Office of Solid Waste Management: 6/22/17, 8/8/18, 7/2/20, 2/12/21. In order to show true refund redemption rates here, small percentages have been deducted from reported redemption rates [=recycling rates] to account for deposit containers recycled through the Honolulu curbside program (2014 is the most recent data available) as follows: aluminum (0.9%), bimetal (2.9%), glass (1.3%), plastic (2.7%), and total (1.6%).

(b) CY 2016 label is intentional; FY 2016 data is unavailable.

### Oregon

Data source for 2021-2023 is Oregon Liquor and Cannabis Commission, "2021 Beverage Container Return Data", "2022 Beverage Container Return Data" and "2023 Beverage Container Return Data".

Data source: Oregon Liquor and Cannabis Commission, "Beverage Container Return Data." Note: 2017 data is a mix of redemption rates under the old 5¢ deposit (Jan.-Mar.) and the new 10¢ deposit (Apr.-Dec.).

### Maine

2023: Personal communication with Maine Department of Environmental Protection, Beverage Container Redemption Program: 8/2/24.

### Iowa

(c) An 86% recycling rate was estimated in 2012 (Dermot Hayes, "Economics of the Iowa Bottle Bill," Iowa State University, Jan. 2012. Table 1), based on waste composition data collected in 2005 by the Iowa Department of Natural Resources: personal communication from Bill Blum, Financial & Business Assistance program planner, Iowa DNR, Land Quality Bureau, 2/27/2015. Deductions made for recycling through curbside and dropoff programs (see below note).

(d) The State of Iowa does not collect data on deposit containers sold or redeemed. Sales estimates were derived from CRI's 2017 Beverage Market Data Analysis (using 2015 sales data). Material-specific redemption rates were derived by CRI and the DNR while analyzing "Final 2017 Iowa Statewide Waste Characterization Study," SCS Engineers for Iowa DNR, 12/28/17. Rates shown reflect deductions made for deposit containers recycled through curbside & dropoff programs, using curbside & dropoff percentages from California (2012 and 2016) as proxies.