

A Stronger Return on Every Deposit

Strategies to Prevent Beverage Container Fraud, Free Riding, and Errors



A Guidebook Prepared by the Container Recycling Institute
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About the Container Recycling Institute

Founded in 1991, the nonprofit Container Recycling Institute (CRI) is a leading authority on the economic and environmental impacts of used beverage containers and other consumer product packaging. Our mission is to make North America a global model for the collection and quality recycling of packaging materials. We do this by producing authoritative research and education on policies and practices that increase recovery and reuse; by creating and maintaining a database of information on containers and packaging; by studying container and packaging reuse and recycling options, including deposit systems; and by creating and sponsoring national networks for mutual progress. CRI envisions a world where no material is wasted and the environment is protected. It succeeds because companies and people collaborate to create a strong, sustainable domestic economy. For more information, visit www.container-recycling.org.

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Cover photo: Beverage containers being sorted and processed at a recycling facility after being returned from Alberta, Canada's deposit-return system. *Copyright: Beverage Container Management Board*

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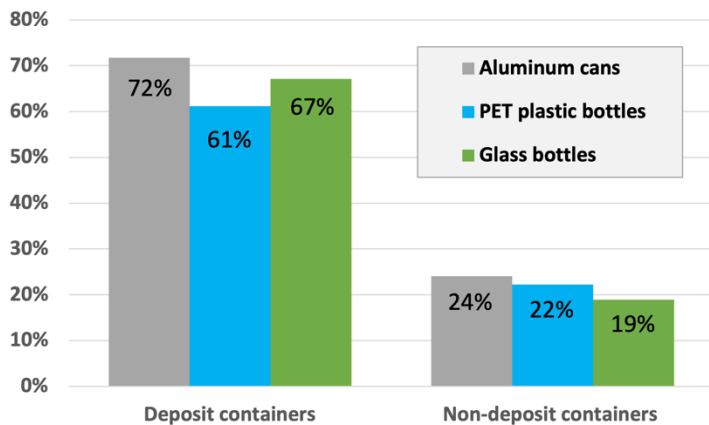
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FF&E: Fraud, Free Riding, and Errors

Chapter 1

Why FF&E Matter: Introduction and Executive Summary

U.S. Nominal Recycling Rates by Deposit Status and Container Material Type, 2023



"2023 Beverage Market Data Analysis." Container Recycling Institute, 2026
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Since the establishment of the first beverage container deposit-return system (DRS) in 1970 in British Columbia, Canada, more than 65 DRS programs have been implemented around the world, with another 15 currently under development (as of mid-2026). DRS programs – also known as “bottle bills” – are widely recognized as the most effective recycling systems for achieving high beverage container recycling rates while producing clean, high-quality recyclable materials. For more than 50 years, these programs have consistently achieved recycling rates that are often up to three times higher than those for beverage containers sold without deposits.

The United States was an early leader in adopting beverage container DRS laws, with most state programs established during the 1970s and 1980s. The laws were originally designed to be compatible with beverage distribution business practices that existed at the time. In many ways, the laws were structured to be self-enforcing, with very little government oversight. Over the decades, the operational practices of beverage distribution and container redemption have evolved, but some aspects of the state DRS laws have not been updated to become compatible with current operational conditions.

Highlights of Deposit-Return Systems

- DRS programs produce higher-quality materials – especially glass. 60% of glass from single-stream collection is recycled; in DRS programs, this number is **98%.***
- In the 10 DRS states, it is estimated that there are **80,000 total existing jobs** resulting from these systems. DRS programs can create **11 to 38 times more jobs** for beverage containers than a curbside recycling system. ******
- If the U.S. were to pass a national DRS, the additional tons of materials recycled would be **9.9 million tons**. Additionally, the scrap value of the materials captured would equal nearly **\$3 billion.*****

Sources:

* Susan Collins. "A Common Theme." Container Recycling Institute. Reprinted from Resource Recycling Magazine. February 2012.

** Container Recycling Institute. "Returning to Work: Understanding the Domestic Jobs Impacts from Different Methods of Recycling Beverage Containers." Jeffrey Morris, Ph.D., and Clarissa Morawski. December 2011.

*** "2023 Beverage Market Data Analysis," Container Recycling Institute, 2026.

In contrast, many newer DRS programs around the world and some U.S. programs have benefited from decades of experience and have incorporated modern technologies, stronger accountability measures, and more comprehensive fraud prevention strategies into their program designs. As a result, the U.S. programs that haven't been updated have opportunities to build new and strengthen existing safeguards based on lessons learned.

Like any large financial system, deposit-return programs are susceptible to fraud, free riding, and operational errors that can undermine program performance if left unaddressed. Programs that lack effective controls may experience financial distortions that affect beverage manufacturers, distributors, retailers, redemption centers, and government agencies. These distortions can result in financial losses for some participants while allowing others to receive payments or profits to which they are not entitled.

In this guidebook:

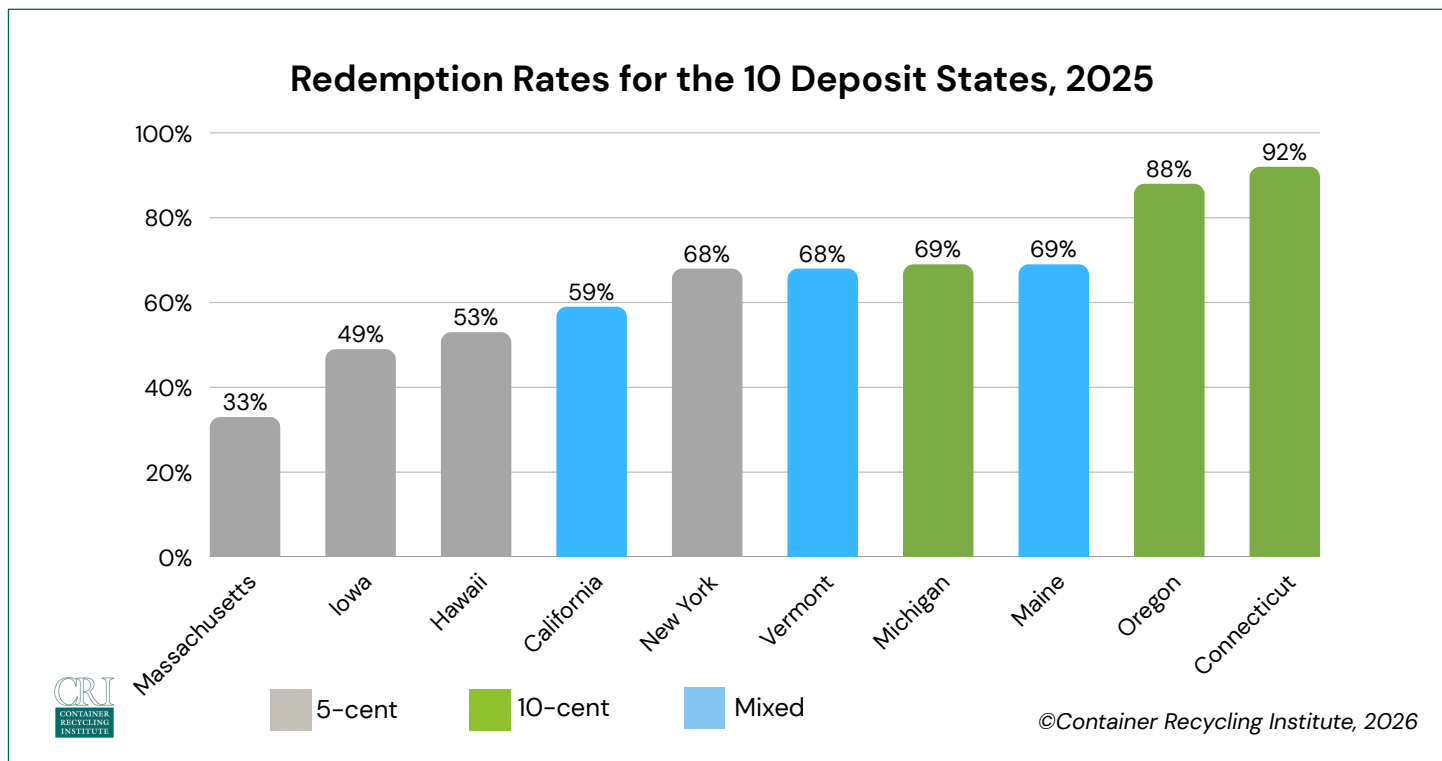
- **Redemption fraud** refers to obtaining a refund for a beverage container through an illegal or unauthorized means.
- **Free riding** refers to selling beverage containers within a deposit system without properly initiating or paying the required deposits, thereby shifting financial responsibility to other participants in the system.
- **Operational errors**, while unintentional, can also create financial losses and distort program performance.

Together, fraud, free riding, and errors reduce program efficiency, diminish transparency and accountability, and can affect the accuracy of reported redemption and recycling rates.

Fraud, free riding, and operational errors can impose meaningful costs on deposit-return systems, although their nature and scale can vary significantly. Documented consumer and organizational fraud, such as redeeming containers on which no deposit was paid, is generally smaller; for example, cross-border fraud in Oregon has been estimated at less than 5% annually. Free riding, however, can be much more significant and difficult to detect. In California, annual audit findings have typically identified \$3 million to \$15 million in underreported deposits (or less than 1%), compared with approximately \$1.6 billion in annual deposit revenues, while CRI estimates that actual underreporting may be \$200 million to \$300 million (roughly 15%).¹ CRI's analysis indicates that underreporting is widespread across the nation's deposit states and may range from approximately 16% to more than 40% in some states. Identifying and reducing these losses can preserve program resources, strengthen accountability and public confidence, and ensure that more funds are available to support and improve recycling programs. Deposit-return systems are already highly successful throughout the United States and the world, and preventing fraud, free riding, and operational errors can make them even *more* successful.

¹ Container Recycling Institute. *Examining the Potential for Increased Revenues in California's Beverage Container Deposit-Return Program*, 13 Aug. 2014, <https://www.container-recycling.org/publications/>

For these reasons, addressing redemption fraud, free riding, and operational errors remains an important priority for policymakers, program operators, redemption centers, industry participants, and oversight agencies. All 10 U.S. deposit-return states have adopted statutory provisions intended to address one or more of these issues. However, the breadth and effectiveness of these measures vary considerably, creating opportunities to strengthen existing programs by adopting proven practices already in use both within the U.S. and internationally.



Many effective solutions already exist. Some jurisdictions continuously monitor fraud and operational performance, measure losses using defined metrics, and maintain fraud and error rates within predetermined acceptable limits. Some jurisdictions (such as Alberta, Canada and Lithuania) report very few instances of fraud, free riding, and errors, noting that their systems were initially designed to prevent problems and have been maintained at high levels of compliance. Germany provides another example where fraud prevention has been embedded into the design of the deposit-return system from the outset, supported by technical safeguards, common standards, and continuous system improvements.

Many of the challenges addressed in this guidebook stem from differences among state deposit-return systems. Every U.S. deposit state except Hawaii borders at least one non-deposit state, creating opportunities for cross-border discrepancies, while even neighboring deposit states may differ in the beverage types covered, deposit values, and other program requirements. This guidebook identifies these potential problems and offers practical remedies, but the most comprehensive solution would be a national beverage container deposit-return system. In the absence of a national system, the next most effective approach would be to harmonize the laws, requirements, and operating practices of all U.S. deposit states.

This guidebook draws upon statutory and regulatory research, published reports, and interviews with experts from more than a dozen jurisdictions to present a comprehensive overview of current practices and identify the elements of an effective fraud, free riding, and error prevention program. It serves as a resource for legislators, policymakers, beverage industry participants, program operators, redemption centers, government oversight agencies, researchers, and other stakeholders interested in strengthening beverage container deposit-return systems.

Specifically, the guidebook:

- Describes and illustrates the various types of redemption fraud, free riding, and operational errors.
- Presents a comparative matrix of fraud prevention measures currently required by each U.S. deposit-return state, including auditing requirements, redemption controls, and other program safeguards.
- Describes the strategic principles that support a comprehensive, measurable, and goal-based approach to prevent fraud, free riding, and operational errors.
- Identifies proven practices and program features from jurisdictions in the U.S. and around the world, bringing these approaches together into a comprehensive set of best practices.
- Provides definitions and model terminology that policymakers may use when developing or updating beverage container deposit legislation.

There are additional anti-fraud measures that we deemed beyond the scope of this guidebook, including common consumer protection practices. This guidebook does not include guidance on consumer education, retailer advertising, shelf labeling, or receipt listings of the deposit value, all of which are important tools to prevent fraud, free riding, and operational errors. Additionally, this guidebook does not discuss oversight or auditing of the Producer Responsibility Organization (PRO).

The policy and administrative recommendations in this guidebook are:

- Include specific anti-fraud measures in statute when developing a Producer Responsibility Organization (PRO).
- Create a comprehensive plan to address fraud and free riding, with rules and safeguards that guide the behavior of all parties and participants in the system. Ensure that the plan is funded and staffed, and that results are reported publicly on an annual basis.
- Create a centralized data system for real-time tracking and visibility into beverage sales, deposits collected, and redemption activity.
- Require deposit initiators to report sales data into a central body. That central body should audit sales.
- Create a true deterrent effect using consequential penalties for noncompliance with program requirements.
- Publish aggregated audit metrics and final enforcement outcomes to the extent permitted by applicable confidentiality laws.
- Establish audit mechanisms and procedures to identify retailers acting as de facto distributors or otherwise bypassing deposit and fee obligations.
- Increase audit staff to align with identified program needs.
- Consider using financial statements as another tool to identify distributor underpayments and underreporting of deposit refunds (if appropriate).
- Consider creating incentives to encourage whistleblowers to report non-registered distributors and manufacturers.
- Continue to search for companies that are not yet registered in the DRS program.
- Create a comprehensive system for reviewing container counts handled by redemption sites.
- Ensure that fraudulent behavior is explicitly prohibited in the law and establish a program to prevent fraud among all system participants.

For more details, see Chapter 6 on page 44.

Chapter 2

Understanding the Terms: A Guide to FF&E

In addition to this glossary of terms, the guidebook also provides model definitions, which are located in the “Model Definitions” section.

Arbitrage: In deposit-return systems, it is the practice of generating a profit by taking advantage of differences between beverage container deposit-return systems in different states, including differences in deposit values, covered products, reporting requirements, redemption procedures, or enforcement practices. Arbitrage can take many forms, including cross-border redemption, transshipment of containers, and other activities designed to capture value that was not intended by the program.

Deposit-Return System (DRS): a type of beverage container recycling system that enables consumers to return empty bottles and cans to a redemption location and receive back the deposit they paid upon purchase. Deposit-return systems often work hand-in-hand with curbside recycling systems, but specifically focus on beverage containers. For a diagram on how an optimal deposit-return system works, please refer to page 15.

Distributor: The term *distributor* can have different meanings in the context of a beverage container deposit-return system and should not be assumed to be synonymous with *manufacturer*, *brand owner*, *deposit initiator*, or *producer*. These terms may refer to different entities and different legal responsibilities, depending on the state and the specific provision of law or regulation being applied. Generally, a distributor is a business that supplies or distributes beverages to retailers or other points of sale. However, state DRS laws may define *distributor* differently and may assign distributors responsibilities that in other states are assigned to a manufacturer, brand owner, producer, or deposit initiator. In some systems, one company may perform more than one of these roles, while in others the roles are clearly separated. Because terminology varies among states, this guidebook uses *distributor* according to the definition applicable in the state or context being discussed. Readers should consult the relevant state statute or regulations when determining which entity is legally responsible for registering beverages, initiating or paying deposits, reporting sales, remitting deposits, or fulfilling other DRS obligations.

Free Rider: entities that benefit from public or community goods and services but fail to pay their share for them. In deposit-return systems, free riders include beverage distributors and/or retailers who fail to report their deposit container sales—in part or in full—as required by agencies in those states.

Program Administrator: an entity responsible for overseeing and running a jurisdiction's deposit-return system for beverage containers. All of the jurisdictions around the world have different key responsibilities, such as (but not limited to) managing deposits, certifying redemption facilities, administering grants, and monitoring compliance. A program administrator can be a nonprofit stewardship organization (such as a Producer Responsibility Organization, or PRO), a government agency, or a dealer cooperative, to name a few.

Redemption Center: a location, business, or facility that accepts empty beverage containers from consumers and pays, or facilitates payment of, the applicable beverage container deposit refund. In most deposit-return systems, redemption centers operate as standalone businesses that provide an alternative to retailer-based redemption and serve as collection points for the recovery of deposit containers. Some state laws expressly define the term “redemption center,” while others authorize or regulate such facilities without providing a specific definition. The legal status, operational requirements, and degree of government oversight vary substantially among jurisdictions. Depending on the state, redemption centers may operate with minimal regulatory requirements, or they may be subject to certification, registration, training, auditing, inspection, reporting, financial, and other compliance obligations. Despite these differences, redemption centers generally perform the same core function within a deposit-return system: providing consumers with a convenient location to redeem eligible beverage containers and receive their deposit refunds.

Transshipping: The word transshipping is used in a variety of contexts, and in the context of deposit beverage containers, it refers to the act of importing or transporting filled beverage containers into a state from a state or jurisdiction where no deposit has been *initiated* on those containers, typically so that the importer or redeemer can exploit the neighboring state's deposit-return system without having paid the required deposit. This practice effectively circumvents the intent of the deposit law – which is to ensure a deposit is paid when the beverage is first sold before or *upon entering the market where the law applies* – and constitutes a form of fraud or abuse of the deposit-return system. This can also occur when two states have different deposit values, such as 5 cents versus 10 cents.

Acronym Glossary:

DRS:
Deposit-Return System

FF&E:
Fraud, Free Riding, and Errors

PRO:
Producer Responsibility Organization

RVM:
Reverse Vending Machine



An RVM in British Columbia, Canada, for beverage container returns.

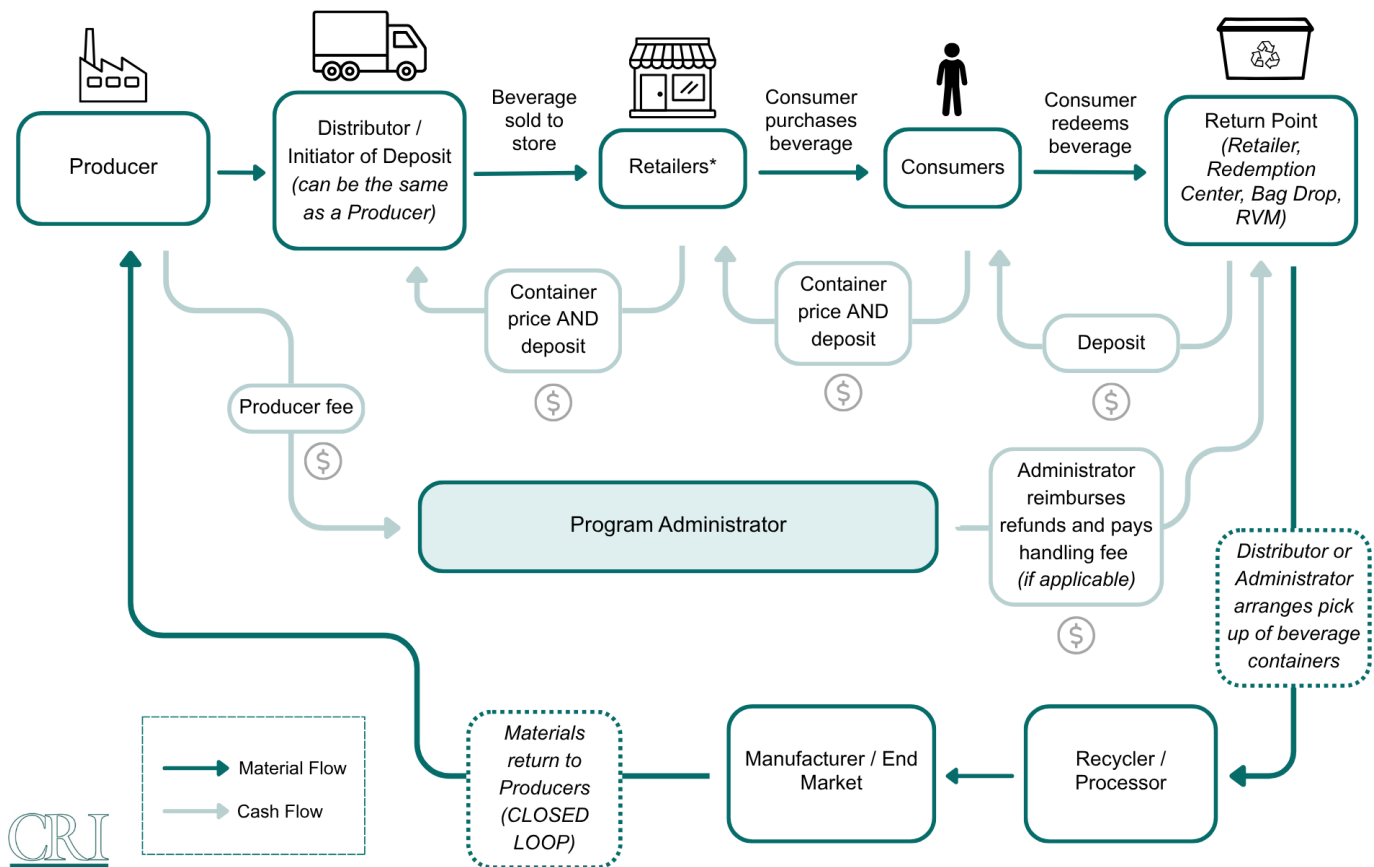
Chapter 3

How FF&E Occur in Deposit-Return Systems

The Optimal Deposit-Return System

Before we dive into the different types of fraud, free riding, and errors (FF&E), as well as approaches to preventing FF&E, we first describe the intended flow of containers, deposits, and fees in a DRS system that is operating without errors. Most of the 10 U.S. states' programs do not entirely operate as shown in the diagram; there are many variations, such as states that do not have central administration of deposits and fees.

The optimal system begins with producer or distributor registration, where these entities register with the program administrator, which can be a state agency or a PRO. Registered beverage containers are distributed to retailers, where the retailer pays the cost of the beverage as well as the deposit. This deposit is forwarded to the program administrator.



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*Retailers may be the producers of store-brand goods or the distributors of brands they import from out of state.

When a consumer purchases a beverage, the retailer collects the deposit at the point of sale. The consumer then redeems the empty beverage container after they have consumed the beverage and receives the deposit amount back; redemption can occur in multiple ways, such as at a retailer, redemption center, depot, bag drop system, or RVM. At this point, the redemption entity has paid money out of its own operating funds and therefore must request reimbursement from the program administrator as well as any applicable handling fee. The administrator arranges for the pickup of containers at the redemption entity. At this time, containers move to processors, and the processors count, sort, bale, and sell recyclable materials on behalf of the PRO or distributors. (In many places, the PRO operates the processing centers.)

Types of Fraud, Free Riding, and Errors

There are multiple types of beverage container FF&E that can be seen in U.S. states with a DRS:

1. Underreporting of Sales by Distributors/Deposit Initiators or Retailers (Distributor or Retailer FF&E)
2. Nonparticipation by Distributors/Deposit Initiators or Retailers (Distributor or Retailer FF&E)
3. Transshipment of Beverage Containers (Retailer FF&E)
4. Cross-Border Redemption (Consumer Fraud)
5. Redemption Center/Depot (and/or Pickup Agent) Fraud and Errors

The first three types – Underreporting, Nonparticipation, and Transshipment – can be detected when the total beverage container sales that are reported to state agencies in some DRS states are *considerably lower* than the total beverage sales estimated for the state through other methods, including those using national, regional, and state-based beverage sales data. Other detection methods are described further in this guidebook.

While these first three examples may appear to be similar, there are important differences. These examples show how various actors within the system can underreport. Therefore, the detection methods must be thorough enough to seek information on all channels of distribution, including distributors, large retailers, small retailers, etc.

1. Underreporting of Sales by Distributors/Deposit Initiators or Retailers

Underreporting can happen in several ways, including:

- A. Underreporting by distributors;
- B. Nonparticipation, or complete lack of reporting by distributors and/or retailers that are not registered in the system;
- C. The failure of retailers to report sales of their own store brands where they are the de facto distributor; and
- D. Direct importation of containers by small retailers that purchase beverages at big box stores in other states.

UNDERREPORTING OF BEVERAGE CONTAINER SALES

1

Distributor sells product to retailer, who sells product to consumer (*In some cases, the distributor and retailer are the same*)



2

Distributor reports lower sales to the program administrator or state than are actually sold



3

Because fewer sales are reported, the distributor pays lower beverage fees and/or deposits than are actually due



4

Redemption rates published by states or PRO are higher than the actual redemption rate of containers



RESULT: The program administrator or state collects less revenue – resulting in less program funding – and the integrity of the program is undermined.



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Underreported deposit sales means that redemption rates published by state agencies will be artificially high because the denominator of the equation “units redeemed ÷ units sold” is too low; it does not reflect the actual number of deposit containers sold.

Underreporting Inflates the Redemption Rate

Formula:

$$\text{Redemption Rate} = \frac{\text{Containers Redeemed}}{\text{Containers Sold}}$$

Scenario 1: Accurate Reporting

A distributor actually sells 1,000,000 deposit beverage containers.

- Containers sold = 1,000,000
- Containers redeemed = 750,000

$$\frac{750,000}{1,000,000} = 75\%$$

Scenario 2: Underreporting

A distributor sells 1,000,000 containers but reports only 900,000 containers.

- Actual containers sold = 1,000,000
- Reported containers sold = 900,000
- Containers redeemed = 750,000

$$\frac{750,000}{900,000} = 83.3\%$$

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In the Scenario 1 example to the left, the total deposits paid from 1,000,000 containers sold would be \$100,000 (assuming a 10-cent deposit). Consumers redeem 750,000 containers, receiving \$75,000 in refunds, with \$25,000 remaining.

In Scenario 2, the total deposits paid from 900,000 containers reported sold would be \$90,000, but the **program administrator still pays \$75,000** in refunds, with only \$15,000 remaining. This creates a shortfall of \$10,000.

Underreporting has financial consequences for program administrators because they often depend on revenues from unredeemed deposits to fund their operations.

When a company underreports, the total number of

containers in the system is less than it should be; as a result, the fees calculated on a per-container basis are higher. Therefore, underreporting by one company can increase costs for other companies in the system.

2. Nonparticipation by Distributors/Deposit Initiators or Retailers

RETAILER STORE-BRAND BEVERAGE DEPOSIT FRAUD

1

Retailer manufactures its own store-brand beverages



Retailer collects deposit from consumer at time of sale for the store-brand beverages

2

Retailer keeps the deposit for store-brand beverage container and does NOT report the sale (or underreports sale)



3



Retailer is still responsible for paying refund and handling fee to redemption centers that redeem their store-brand products

RESULT: Profit gain for retailer, and program administrator receives NO deposits or fees on unreported sales, leading to a loss of funds for the program.



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Nonparticipation by distributors or retailers is similar to the underreporting of sales, but specifically focused on #2 and #3 in the prior section. This issue is identified when there is a lack of reporting by distributors or retailers, or when a distributor or retailer fails to report the sales of their own store brands where they are the de facto distributor. We are describing nonparticipation separately from underreporting, because the detection mechanisms are different. Complete nonparticipation is more difficult to detect and rarer in programs that have comprehensive control processes.

Example of Nonparticipation

Assume:

- Deposit = 10 cents per container
- A retailer sells 1,000,000 store-brand beverages

Scenario 1: Accurate Reporting

Deposits owed:
 $1,000,000 \times \$0.10 = \$100,000$

A retailer reports the sales and pays \$100,000 into the deposit system.

Scenario 2: Nonparticipation

Deposits owed:
 $1,000,000 \times \$0.10 = \$100,000$

A retailer pays \$0 into the deposit system and collects \$100,000 in deposit funds.

The retailer does not report the sales or pay \$100,000 into the deposit system.



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In Scenario 1, the total deposits paid from 1,000,000 containers sold would be \$100,000 (assuming a 10-cent deposit). The retailer reports the sales and pays \$100,000 into the deposit system.

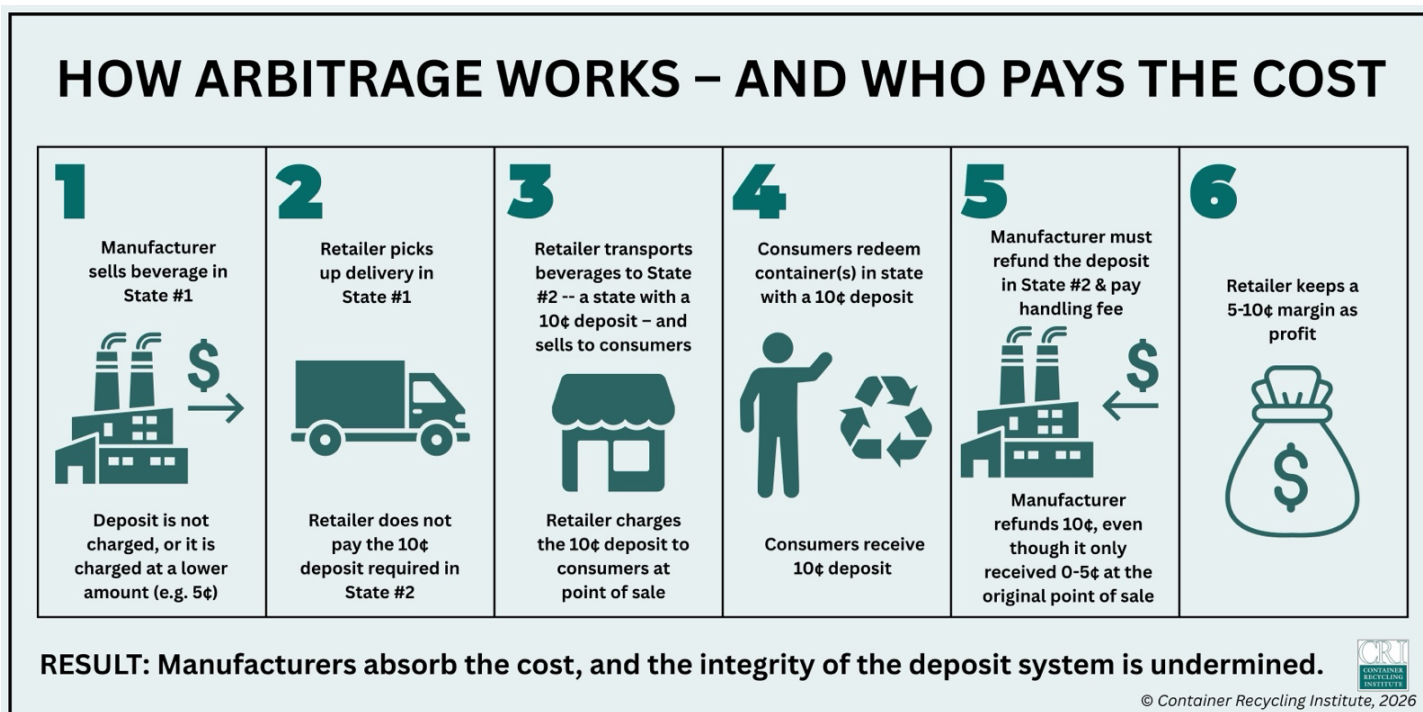
In Scenario 2, a retailer may not report the sale of store-brand beverage containers, so the retailer pays \$0 and collects and retains \$100,000 in deposit funds. The consequences of nonparticipation are similar to underreporting: the program administrator or distributors must provide redemptions to consumers without having received the deposits initially. Furthermore, consumers might be unable to receive refunds if the containers aren't properly registered in the system.

Nonparticipation within a deposit-return system can be identified through several indicators. These include the failure of a distributor or retailer to submit monthly deposit payments or sales numbers, the failure of a distributor or retailer to register their products with state agencies, or when brands omit a required state/country deposit mark on the beverage label. Another indicator is when a distributor or retailer that manufactures its own store-brand beverages charges the deposit but keeps the deposit without reporting the sales on those items.

3. Transshipment of Beverage Containers

There are potential arbitrage opportunities for beverage retailers in a state in the context of transshipment. Retailers can purchase beverages from manufacturers (and/or distributors) and accept delivery of the beverages in another state that either doesn't place a deposit on those containers or places a deposit of lesser value on those containers (like 5 cents versus 10 cents). By doing this, the retailer avoids paying the deposit to the beverage manufacturer.

The retailer can then move the containers to their retail stores in a deposit state and charge the deposit to consumers when they sell the beverages. In this way, the retailer can receive the deposit from the consumer and recognize it as a profit.



Retailer Avoids Paying Deposits Through Transshipment

Step 1: Retailer purchases beverages in State A (no deposit)

- Containers purchased = 1,000,000
- Deposit paid = \$0

Step 2: Retailer moves beverages into State B (10-cent deposit)

- Containers sold = 1,000,000
- Deposit collected = \$100,000

Step 3: Consumers redeem containers

- Assume containers redeemed = 900,000
- Deposit paid by another entity = \$90,000

Retailer keeps \$100,000 as a profit.



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There is harm created when this process occurs. When these same containers are returned for redemption in State #2, the manufacturer or in-state distributor of the beverages is responsible for refunding the deposit - but for some of the containers, the manufacturers and in-state distributors will not have received any deposit when the containers were initially sold. The "refunds" must then come out of the pockets of the manufacturers or brand owner indicated on the container (or by the PRO), leaving them at a significant financial disadvantage. In addition, the manufacturers and distributors responsible for the deposit refunds must incur the cost of paying the handling fees on those containers to retailers and redemption centers.

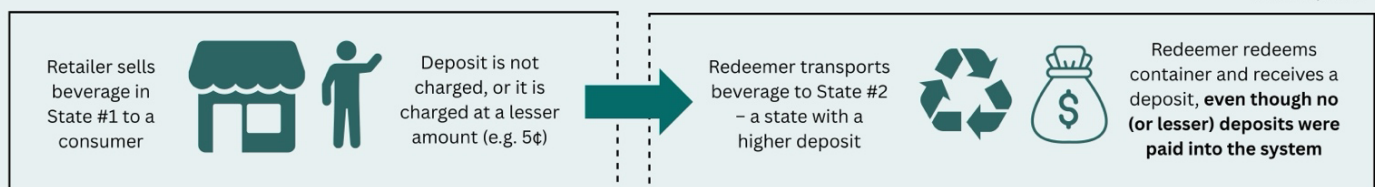
4. Cross-Border Redemption Fraud

Cross-border redemption fraud occurs when a person purchases beverages in jurisdictions that don't have deposits – or that have lesser deposit amounts – and then takes the containers to jurisdictions that do have DRS systems to try to collect deposits, or higher deposit amounts, as windfalls.

CROSS-BORDER REDEMPTION FRAUD

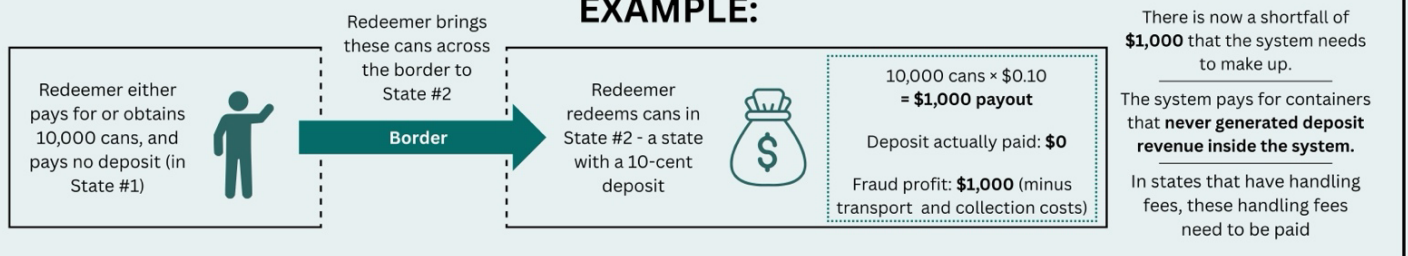


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RESULT: Redemption system expects payouts to be funded by deposits. When cross-border consumer fraud occurs, redemption funds are drained.

EXAMPLE:



This can also be done via curbside programs and/or redemption centers with presumably greater volumes of containers.

Note that an increase in redemption rates **does not** automatically equate to cross-border redemption fraud. A redemption rate increase may be due to a variety of factors, such as an increase in the deposit amount, the opening of new redemption centers, and an increase in the installation of RVMs. When consumers have an increased incentive to return their containers, as well as an easier means to do so with more points of redemption, this can result in an increase in beverage container redemption.

As a result of cross-border redemption fraud, states have either passed legislation or attempted to pass legislation to try to combat this issue. Types of legislation include new provisions on load (redemption) limits, new record-keeping criteria when a redeemer brings in a certain number of containers, and an increase in fines for violating requirements. See page 35 for a summary of redemption limits in the 10 U.S. deposit states.

5. Redemption Center/Depot (and/or Pickup Agent) Fraud and Errors

Redemption centers, depots, and pickup agents play a critical role in the operation of a beverage container deposit-return system and are responsible for ensuring that eligible containers are accurately received, recorded, and processed. As key points within the redemption chain, these entities may experience internal fraudulent activity. This can include claiming refunds for beverage containers that were never received, collusion with suppliers or transporters to submit fraudulent redemption claims, or falsifying redemption records.

Chapter 4

What We Learned: Current Approaches Across the U.S.

Methodology

This chapter is based on a review of state statutes and regulations, published reports documenting fraud prevention efforts and known cases of fraud, and interviews with state agency personnel and other stakeholders responsible for overseeing U.S. DRS programs.

The purpose of this review was to identify the existing common approaches to preventing, detecting, and addressing fraud, free riding, and administrative errors, while also highlighting innovative practices that may offer valuable lessons for policymakers and program administrators. In the following chapters, we also include a review of best practices from programs in other countries.

Overview of Findings

No two U.S. deposit-return systems are identical, and the approaches used to address fraud and compliance challenges vary considerably from state to state. While every program contains statutory provisions intended to prevent fraud and ensure accountability, no state currently employs the totality of the practices identified in this guidebook as potential best practices.

Research revealed that states face a common set of challenges, including limited staffing, unclear enforcement authority, inadequate funding, and outdated statutory frameworks. At the same time, several states have developed innovative approaches that may be instructive to other jurisdictions.

Key Themes

1. No State Has Implemented a Comprehensive Fraud Prevention Framework

All DRS states have legal provisions that establish responsibilities for participants throughout the system, including state agencies, distributors, retailers, redemption centers, and redeemers. However, no state has implemented a comprehensive framework incorporating all of the fraud prevention, monitoring, auditing, and enforcement practices identified in this guidebook.

Instead, states have generally adopted a combination of measures that reflect their unique program structures, histories, and available resources.

2. Individual States Have Developed Innovative Practices

Although no single state serves as a complete model, several states have implemented novel approaches that may represent emerging best practices.

Examples include enhanced auditing requirements, multi-agency fraud task forces, container registration systems, expanded data reporting requirements, and specialized enforcement units. These practices demonstrate that states continue to adapt their programs in response to evolving fraud risks and operational challenges.

3. Enforcement Authority Does Not Guarantee Effective Enforcement

Having statutory authority to investigate and enforce violations is only one component of an effective compliance program. States must also have sufficient funding, staffing, expertise, and organizational capacity to exercise that authority.

In many jurisdictions, enforcement responsibilities have historically been assigned to small staffs with limited resources. As a result, significant violations may go undetected or unaddressed despite the existence of statutory enforcement powers.

Maine provides a useful example of addressing the staffing gap. For many years, responsibility for overseeing the state's deposit-return system rested with the Department of Agriculture, where only a fraction of a staff position was dedicated to DRS enforcement. In recent years, the state transferred oversight responsibilities to the Department of Environmental Protection and consolidated administration within a unit that already oversees other product stewardship programs. The Legislature also provided funding for additional staff positions dedicated to program oversight. Following the substantial restructuring of Maine's deposit-return system in 2024, the agency has been developing new procedures and oversight mechanisms consistent with the revised program structure.

4. Unclear Oversight Responsibilities Can Create Compliance Gaps

Some state laws prohibit certain activities or establish compliance requirements but do not clearly identify which agency is responsible for monitoring, investigating, or enforcing those provisions.

When authority is fragmented or ambiguous, violations may fall between agencies, resulting in reduced accountability and inconsistent enforcement. Clearly assigning responsibility for oversight and enforcement is therefore an important component of an effective fraud prevention framework.

5. Staffing Constraints Are the Most Common Challenge

The most consistent theme identified during interviews was the lack of sufficient staffing to support prevention, monitoring, auditing, investigation, and enforcement activities.

In many states, interviewees indicated that staffing levels represent only a small fraction of what would be needed to adequately oversee DRS program participants and investigate potential violations. Limited staffing affects every aspect of program administration, from routine compliance reviews to complex fraud investigations.

Recognizing these challenges, several states have recently expanded their oversight capacity. California and Maine have increased staffing devoted to DRS administration and compliance activities, while other states have sought alternative approaches. For example, New York established a multi-agency task force to address fraud, while Maine and Hawai‘i have implemented requirements that shift certain auditing responsibilities to distributors or PROs, reducing the burden on state agencies.

6. Laws Often Lag Behind Changes in the Marketplace

Many deposit-return statutes were enacted decades ago and were designed around beverage distribution systems that differ substantially from those operating today.

E-commerce, direct-to-consumer sales, online marketplaces, and increasingly complex distribution networks were not anticipated when many DRS laws were drafted. As a result, states often face challenges applying older statutory provisions to modern business practices. Updating laws and regulations to reflect current market conditions remains an ongoing challenge for many jurisdictions.

7. Fraud Risks Differ Significantly From State to State

While certain forms of fraud—such as cross-border redemption and falsified redemption claims—occur across multiple jurisdictions, many compliance challenges are highly state-specific.

Differences in deposit values, redemption infrastructure, geography, reporting requirements, and program administration create unique vulnerabilities in each DRS state. Some issues that are significant concerns in one jurisdiction may be largely absent in another.

This finding suggests that effective fraud prevention strategies should combine core best practices with sufficient flexibility to address local conditions and evolving risks.

Emerging Practices and Trends

Several emerging practices were identified during the course of this research and may warrant additional attention in future program design efforts.

One notable development is the growing interest in beverage container barcode registration systems. Vermont recently incorporated a container registration requirement into its DRS law, reflecting a broader interest in improving container identification and reducing opportunities for fraud. Whether barcode registries become a more widespread feature of U.S. deposit-return systems remains to be seen.

Another increasingly common practice is the use of consumer-facing signage. Many states require retailers and/or redemption centers to post notices informing consumers that the redemption of out-of-state containers is prohibited. These signs serve both educational and deterrent functions.

The Recommendations section in Chapter 6 outlines additional emerging trends as potential strategies and policy options for reducing fraud, free riding, and errors in DRS programs.

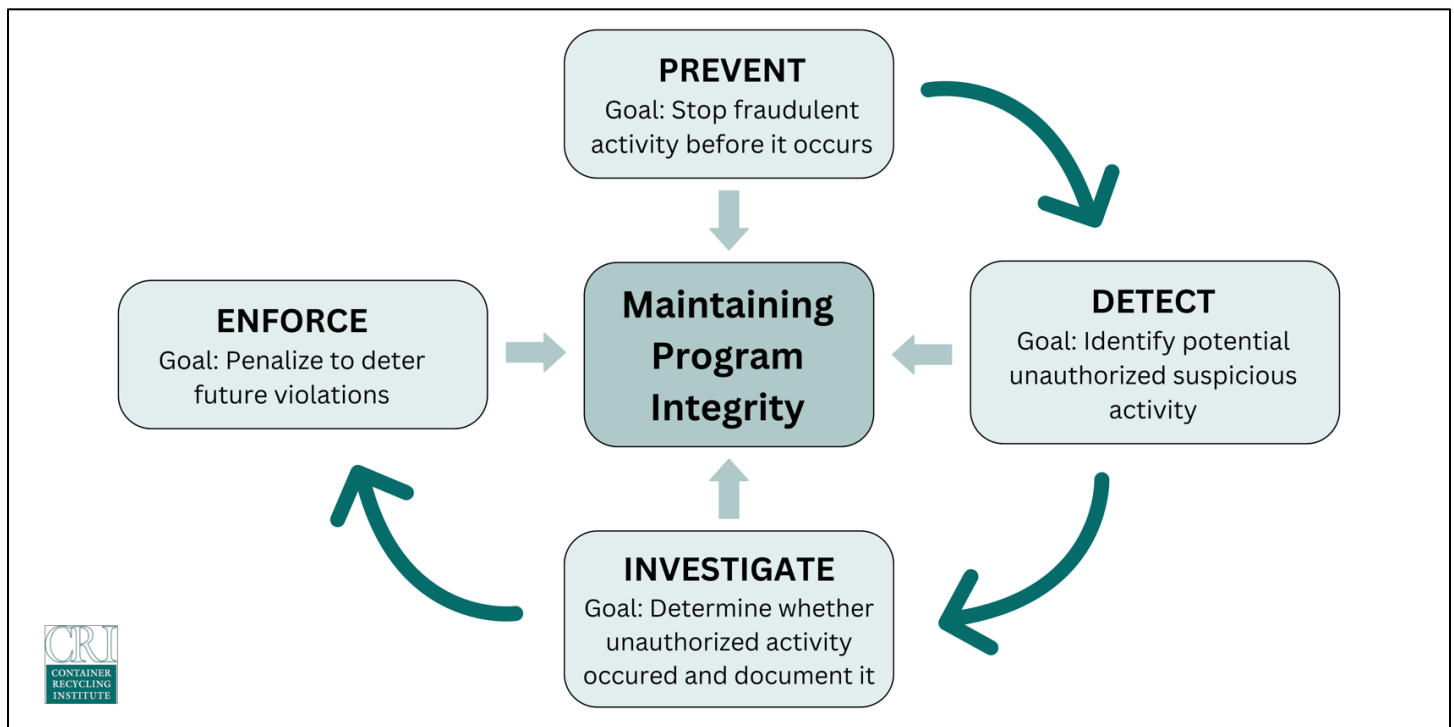
Chapter 5

What States and Other Jurisdictions Are Doing

This section highlights current approaches and leading practices used by various jurisdictions to address fraud, free riding, and errors in deposit-return systems. The examples are drawn from operational practices as well as statutory and regulatory provisions in these jurisdictions. Many practices described were identified through interviews with the program administrators and enforcement personnel who are responsible for overseeing these systems. In many instances, their feedback emphasized that these approaches are foundational components of an effective deposit-return system. The practices highlighted in this section should be viewed as essential elements for maintaining program integrity and preventing fraud and free riding in a DRS, both in the United States and around the globe.

Please note that this list is not all-encompassing, and that there are many other approaches that program administrators use to prevent FF&E across the globe.

To organize the different approaches to preventing fraud, free riding, and errors, we have used the framework from Alberta's Beverage Container Management Board: **Prevent, Detect, Investigate, and Enforce**.



Prevention is the first line of defense, but detection, investigation, and enforcement are all important pillars in a successful DRS. These pillars can work as independent functions, as each pillar represents an important approach to preventing FF&E; for example, a jurisdiction may have strong detection tools even if its enforcement process is developing. Additionally, when fraud occurs, the pillars often operate sequentially to mitigate the issue.

Prevent

Education for Prevention and Setting Ground Rules

California: Training Program for Redemption Centers

In California, both new and renewing redemption center applicants must participate in a training class delivered by the California Department of Resources Recycling and Recovery (CalRecycle) called “Precertification Training.”² The purpose of this training is to ensure that operators understand program requirements, with the intention of reducing errors and improving compliance. The training includes providing information about documentation requirements and the enforcement of beverage container redemption daily limits. As a part of this training, applicants must score at least 80% on a written exam to qualify for certification as a redemption center. CalRecycle schedules at least two classes a month, one in Northern California and one in Southern California, to ensure it is convenient for applicants to take the training. This requirement is a result of SB 96 (2013).

Alberta, Canada: Operating Agreements

In Alberta, the Beverage Container Management Board (BCMB) maintains binding operating agreements with key system participants, including the Collection System Agent (CSA) and Collection Service Providers (CSPs). Requirements applicable to bottle depots are established through permits issued by BCMB and its bylaws, with the Alberta Bottle Depot Association (ABDA) serving as the collective representative body for Alberta's depots. The CSA is the Alberta Beverage Container Recycling Corporation (ABCRC). CSPs in Alberta are manufacturers of refillable containers and mostly handle beer containers, such as the Alberta Beer Container Corporation.

These operating agreements establish roles, responsibilities, reporting requirements, performance expectations, and measures for CSA/CSPs. Among other requirements, the CSA and CSPs must annually provide BCMB with a written summary of their fraud mitigation strategy and an evaluation of its effectiveness.^{3 4}

² CalRecycle, “Precertification Training.” <https://calrecycle.ca.gov/bevcontainer/certoperator/precerttrain/>

³ CSA Operating Agreement between the Beverage Container Management Board and the Alberta Beverage Container Recycling Corporation. <https://tinyurl.com/4pfa69b6>

⁴ CSP Operating Agreement between the Beverage Container Management Board and the Alberta Beer Container Corporation. <https://tinyurl.com/282ux95j>

British Columbia, Canada: Depot Guidebook

In British Columbia, depot owners receive an official Depot Reference and Contract Manual, which outlines formal operating procedures and service requirements. The purpose of this operations manual is to lay the groundwork and ease compliance for depot owners. This manual includes the procedures and policies that depots must follow in regard to collection and shipping of collected materials, and provides guidelines on how to sort and track labelled collection bags.

Beyond this manual, there is also a depot agreement in place that further specifies the requirements.

Prevention of Fraud Through Traceability and Record-Keeping Requirements

British Columbia and Oregon: Digital Traceability Through Bag Drop

Both British Columbia and Oregon have robust bag drop programs in their respective jurisdictions. British Columbia's bag drop programs, Return-It™ Express and Express & GO, and Oregon's BottleDrop® Green Bag program, are extremely popular among redeemers.^{5 6}

Oregon's BottleDrop program is very popular with residents; in 2025, the program processed over **12.95 million bags**.

Source: Oregon Beverage Recycling Cooperative, "Facts & Stats." <https://obrc.com/about-obrc/facts-stats/>

Both of these programs have measures in place to combat fraud, specifically through digital traceability for operators and regulators in the system. Every bag has a unique code and tracking number, immediately linking the bag to the redeemer. In British Columbia, every depot that operates with Encorp Pacific (the administrator of Return-It) must use their "Point of Return" (POR) system, which tracks these bags; each tag is generated and tracked through the Bag Drop Application, which is counted through the POR system.

In 2024, more than **99% of British Columbia's population** had access to a beverage container return facility (defined as being within a 30-minute drive in urban areas or a 45-minute drive in rural areas). This level of accessibility is supported by a network of 183 return locations—a number that continues to grow as Encorp Pacific expands its collection network—and contributed to the province's **78% redemption rate**.

*Source: Return-It "2024 Annual Report – Celebrating 30 Years of Environmental Stewardship," August 27, 2025.
<https://www.return-it.ca/blog/annual-report-2024/>*

⁵ Encorp Pacific, "Return-It Express." <https://www.return-it.ca/express/>

⁶ BottleDrop, "BottleDrop Green Bags." <https://bottledrop.com/return-green-bags/>



A BottleDrop beverage container return site in Oregon.

The POR interfaces with the Bag Drop Application and computerized transportation system to ensure full traceability of the bag and the counted containers. In both programs, these bags are traceable, and redeemers as well as operators are able to benefit from real-time reporting. In order to register for both programs, one must have a verified phone number. In Oregon, BottleDrop participants must also have an Oregon residential address to register. All of these measures help prevent fraud through digital traceability and verified counts.

Because no system is perfect, rare instances of system errors and consumer and depot fraud have occurred. Additionally, these programs continue to be modernized to further streamline the bag drop process and reduce any errors. In 2025, the Return-It Express and Express & GO platforms were upgraded through LT3 Deposit Return Systems (a software platform designed to manage beverage container DRS) with streamlined Android, iOS, and web apps, as well as a centralized platform for tracking complaints and suspicious activity.⁷

Michigan: Record-Keeping Requirements

Retailers in Michigan that seek reimbursement from a portion of unclaimed deposits from the State Treasury are required to maintain records that document the number of containers they receive and redeem each year. This record-keeping requirement provides an important accountability mechanism and serves as a means to prevent beverage container fraud as well as maintain compliance in the program.

⁷ LT3 Deposit Return Systems. "Transforming Beverage Container Recycling in British Columbia with our DRS Platform."
<https://lt3depositreturnsystems.com/case-studies/return-it-express/>

Container Markings and Barcodes

Germany: Unique DPG Container Marking

Each deposit-bearing beverage container in Germany's DRS, managed by Deutsche Pfandsystem GmbH (DPG), carries a barcode allocated to the German market, the DPG deposit logo, and a covert DPG security marking printed with a special security ink, making it difficult to counterfeit labels and redeem out-of-country containers.⁸ The DPG security marking is unique to the German system. During the return process, RVMs authenticate the DPG security marking and can immediately detect fraudulent containers. This helps to both prevent and detect fraudulent activity.

U.S. Northeast States: Distinct Identification on Out-of-State Containers

In some U.S. states, brand owners have voluntarily used distinct labeling and/or distinct bar codes for containers in neighboring states. For example, a bottled water manufacturer has a distinct bar code and different-colored label for deposit states and non-deposit states, which helps keep non-deposit-bearing containers from being erroneously redeemed in deposit states.

⁸ Deutsche Pfandsystem GmbH, "The DPG Deposit Process" (translated from German). <https://dpg-pfandsystem.de/en/the-one-way-deposit-system/the-dpg-deposit-process.html>

Fraud Prevention at RVMs

Germany, Norway, and Lithuania: Integration of RVMs in a DRS

The German, Norwegian, and Lithuanian deposit-return systems rely heavily on RVMs as a means of fraud prevention and security. While the machines themselves are not fundamentally different than machines across the globe, RVMs are more integrated into the overall deposit system. The countries' distinguishing feature is their integration with a centralized product database as well as automated barcode verification (discussed briefly in the "Detect" section below) that work to provide system accountability.



Beverage container returns using RVMs at a Kaufland supermarket in Germany.

Copyright: Todd Johnson Photography

The German DRS consists of over 50,000 RVMs for a population of over 84 million, the Norwegian DRS consists of over 3,900 RVMs for a population of 5.6 million, and the Lithuanian DRS consists of over 1,000 RVMs for a population of 2.9 million.^{9 10 11} These RVMs are accompanied by other forms of redemption, such as manual return-to-retail. Like RVMs across the globe, the machines crush and compact beverage containers immediately after redemption in order to prevent duplicate redemption. Most of these countries' containers are redeemed through RVMs (89% in Lithuania, for example).¹²

RVM security is critical to preventing redemption fraud, with systems designed to detect and prevent fraud before it occurs.

⁹ TOMRA, "Deposit return scheme in Germany: the world's highest-performing drink container recycling system." June 15, 2026. <https://www.tomra.com/reverse-vending/media-center/feature-articles/germany-deposit-return-scheme>

¹⁰ TOMRA, "Norway's deposit return scheme is world's recycling role model." October 15, 2024. <https://www.tomra.com/reverse-vending/media-center/feature-articles/norway-deposit-return-scheme>

¹¹ TOMRA, "Lithuania exceeds container return rate expectations." January 29, 2026. <https://www.tomra.com/reverse-vending/media-center/feature-articles/lithuania-exceeds-container-return-rate-expectations>

¹² Užstato Sistemos Administratorius (USAD) "Lithuania's Deposit System." Presentation uploaded to Reeloop Platform website. <https://www.reeloopplatform.org/wp-content/uploads/2019/03/USAD-ppt.pdf>

Fees to Deter Beverage Container Over-Redemption

Lithuania: Additional Administrative Fees

In Lithuania, the Užstatų Sistemų Administratorius (USAD) administers "additional administration fees" for manufacturers if the redemption rate for a product exceeds 100%.¹³ The additional administration fees are changed every year depending on market fluctuations of raw material prices. These fees create an incentive to accurately report sales, effectively resulting in little to no beverage container over-redemption in Lithuania.

Information-Sharing Process to Identify FF&E

Alberta: System-Wide Notification Process

When depot operators identify concerns related to container returns, refund eligibility, or other matters that may affect the integrity of the beverage container redemption system, they may submit those concerns through BCMB's Quality Management System (QMS). BCMB reviews and takes action on those submissions as appropriate. Where warranted, BCMB may communicate relevant information to the broader depot network, with the hope of deterring FF&E. This acts as a BCMB-led notification and information-sharing process.



A customer scanning a container return ticket at an automated bottle depot refund kiosk to receive their deposit refund (Alberta, Canada). *Copyright: Beverage Container Management Board*

Redemption Load Limits in U.S. Deposit States

Daily redemption limits are set to manage the redemption process to not overburden dealers and redemption centers with too many containers at one time. Some of these daily redemption limits are intended to reduce the number of containers coming in from other states, and act as a cross-border fraud deterrent. Please refer to the following chart for redemption daily limits; unless otherwise noted, the limit on number of containers per day can be imposed by the retailer or redemption center at their discretion.

¹³ USAD Handling Fee Rates Letter. May 25, 2026. (translated from Lithuanian).

https://grazintivert.lt/data/public/uploads/2026/05/gamintoju-ir-importuotoju-tarifai-2026_galioja-nuo-2026-07-01.pdf

Redemption Daily Limits in U.S. Deposit States

	Dealers/Retailers	Redemption Centers
<i>Connecticut</i> ¹⁴	240 containers per day*	Redemption centers must limit customers to redeeming 4,000 containers per person per day, except for a nonprofit organization or verified fundraising activity.
<i>California</i> ^{15 16}	No limit	By container: Redemption centers may limit customers to redeeming 50 of each material type per transaction. By weight: Redemption centers must limit customers to redeeming 100 lbs. of aluminum, 100 lbs. of plastic, and 1,000 lbs. for glass (or approximately 3,000 aluminum, 2,700 PET, and 2,000 glass containers).
<i>Hawai'i</i>	No maximum, recommended that individuals manage their loads so they are in the 300-400 container range per transaction.	No maximum, recommended that individuals manage their loads so they are in the 300-400 container range per transaction.
<i>Iowa</i>	120 containers per day*	Redemption centers may limit customers to 500 containers per day.
<i>Maine</i>	240 containers per day*	Regulations are not explicit, but statute is interpreted that the redemption centers may limit customers to 240 containers.
<i>Massachusetts</i>	120 containers per day*	No limit
<i>Michigan</i>	Up to \$25 in refunds per day per retailer (250 containers)*	N/A
<i>New York</i> ^{17 18}	240 containers per day*	No limit
<i>Oregon</i> ^{19 20}	50 containers per person per day for retailers under 5,000 sq. ft. outside redemption zones* 144 containers per person per day for retailers over 5,000 sq. ft. outside redemption zones* 350 containers per person per day for retailers within up to 3.5 miles of a redemption center that chooses not to participate in the program.*	350 containers per day for RVMs or Stream Count AI; 50 containers per day for hand-counted returns
<i>Vermont</i>	No limit	No limit

*Retailer or redemption center has discretion to accept more containers.

¹⁴ Any redemption center that accepts more than 1,000 containers from one person in one day must obtain a record of that individual. This was recently changed from 2,500 containers (as per CT Public Act 26-2).

¹⁵ This was recently changed from 5,000 containers per day per person (as per CT Public Act 26-2).

¹⁶ In CA, there is also a daily load limit of 50 lbs. for bag-in-box containers and 25 lbs. for multilayer pouches and paperboard cartons.

¹⁷ A redeemer may make 48-hour advance arrangements to redeem an unlimited number of empty beverage containers.

¹⁸ A dealer may limit the number of accepted beverage containers to 72 containers per redeemer, per day, if the dealer has an agreement with a fixed redemption center (within ½ mile of the dealer) or a mobile redemption center (within ¼ mile of the dealer) and meets all other requirements (as per ECL 27-1007(3)).

¹⁹ The Oregon Liquor and Cannabis Commission specifies a "first convenience zone" within 2 miles of a redemption center, and a "second convenience zone" to be within 3.5 miles of a redemption center. There are additional container limits of 24 containers per person per day for (1) retailers over 5,000 sq. ft. within the second convenience zone served by a redemption center, and (2) retailers under 5,000 sq. ft. within either the first or second convenience zone served by a redemption center. If a dealer that is over 5,000 sq. ft. and located within a convenience zone chooses not to participate in the redemption center and that dealer sells fewer than 100,000 units per year, the dealer is only required to accept 144 containers per person per day.

²⁰ For bulk returns (Green Bag program) at stores over 5,000 sq. ft.: Limits at Dealer Redemption Center in Portland are 10 bags per day and 50 bags per calendar quarter with no requirement to accept containers in the store; limits at Dealer Redemption Center outside Portland are 10 bags per day and 50 bags per calendar quarter (must still accept 24 containers in the store per person, per day); limits for BottleDrop Express: 10 bags per day and 50 bags per quarter; must still accept 144 containers per person, per day. For bulk returns at redemption centers: 10 bags per day and 30 bags per quarter (in addition to quarterly limits at retail locations).

Detect

Public Transparency About Enforcement Activities

California: Quarterly Updates on Enforcement Activities

CalRecycle provides quarterly public updates on its inspection and enforcement activities through a PowerPoint presentation titled *Recycling Program Enforcement Activities*. The presentation is appended to the agenda materials for CalRecycle's public meetings and summarizes recent inspection, compliance, and enforcement efforts within the Beverage Container Recycling Program. These reports typically include information on inspections conducted, investigations initiated or completed, administrative actions taken, outreach and education activities, and notable enforcement cases. The presentations also routinely report metrics such as dealer (retailer) inspections, recycling center inspections, investigations, arrests, convictions, penalties, and fraud cases. As a recurring source of program information, the presentations provide insight into CalRecycle's operational priorities, enforcement workload, and emerging compliance issues.

Data Analysis and Database Maintenance

Alberta: Sales Volumes Analysis as a Part of Reporting Process

Alberta's Reporting and Remittance (R&R) framework helps ensure all beverage manufacturers in the province accurately report sales volumes and pay the required fees to support the deposit-return system. Manufacturers must register containers they sell and report the sales volumes to a Collection System Agent (CSA). The CSA compiles and reconciles sales data across all registered manufacturers before submitting it to the Beverage Container Management Board (BCMB) for review and follow up on any discrepancies or potential compliance issues. This verification process serves as an important control to detect free riders through the identification of misreported and underreported beverage container sales. By validating reported sales data and facilitating oversight, the R&R framework helps ensure accurate financial flows and detect potentially fraudulent activity.

Germany and Lithuania: Centralized Database and Registry

Germany's deposit-return system, managed by Deutsche Pfandsystem GmbH (DPG), is supported by a centralized system database containing the product master data required for the operation of the system. Producers and importers register product information, including the barcode allocated to the German market. This standardized product registry provides the basis for reliable product identification throughout

the deposit-return system and helps prevent the redemption of non-registered or ineligible beverage containers.

Užstatas Sistemų Administratorius (USAD) in Lithuania also has a centralized database system that tracks each beverage container label. The database contains detailed statistics about how many of each product was put into the market and how many were redeemed.

Barcodes in particular are an effective anti-fraud tool, as the barcode for a beverage container is registered in the respective national deposit database before the product is marketed, and every RVM in each country recognizes that barcode as deposit-eligible. Each database is centralized and traces container data across the supply chain.

Auditing for Underreporting and Free Riding

Hawai‘i, British Columbia, and Maine: Third-Party Auditing

In **Hawai‘i**, a third-party audit provides an independent review of distributor-reported data. This practice helps to detect noncompliance and underreporting of beverage containers through an independent and objective mechanism that is separate from a state agency.

Before June 2026, every beverage distributor in Hawai‘i had to pay a third-party company to do an audit of their beverage container sales every 2 years, and the distributors had to submit this audit to the state. For a brief period of time, the statutorily required auditing program was suspended statewide by an Executive Order from the Governor due to the financial hardship on small businesses.

In June 2026, Hawai‘i Senate Bill 3138 (now Act 158) was signed by the Governor.²¹ This bill created a tiered solution, allowing smaller companies that sell fewer than 5 million beverage containers per year to omit the self-audit process, with the Department of Health (DOH) presumably conducting random, risk-based audits. Only medium (at least 5 million containers sold per year, but fewer than 75 million) and large distributors (75 million or more containers sold per year) would have to undergo independent audits. See the following chart for the specific audit requirements.

²¹ Hawai‘i Senate Bill 3138 (SD1 HD1 CD1), signed June 25, 2026.
https://www.capitol.hawaii.gov/sessions/session2026/bills/SB3138_CD1_.htm

Summary of New Auditing Requirements in Hawai‘i for Beverage Distributors in SB 3138

Tier	Number of beverage containers sold by a beverage distributor per year	Audit requirements
Large	75 million or more	Independent audit is required every second year (for odd-numbered years).
Medium	At least 5 million but fewer than 75 million	Independent audit is required every 5 years for years ending in a 5 or 0.
Small	Fewer than 5 million	No self-audits are required; DOH will presumably conduct random, risk-based audits.

Act 158 also describes that an independent audit must:

- Verify the inventory reports and payments.
- Review all transaction fees (including fees collected during sales, transfers, or donations).
- Include auditor certification.
- Be submitted by September 30th following the calendar year in which the distributor is required to audit.

Lastly, the Act puts into law that a website must be developed that allows beverage distributors to submit auditing reports online.

In **British Columbia**, registered beverage producers are required to annually provide verification of beverage container unit sales. The auditing requirements are tiered, similar to Hawai‘i’s new structure, but with slightly different thresholds. Producers selling more than 10 million beverage containers must undergo a third-party audit. Those selling between 5 and 10 million containers must use either an external or internal auditor, and those selling fewer than 5 million containers must be audited by either an external auditor, internal auditor, or senior officer.²²

In **Maine**, third-party auditing is required by statute. In the state’s new Commingling Cooperative Plan, the program administrator must randomly audit 5% of deposit initiators’ sales data reports. Also, the program administrator may now authorize the Commingling Cooperative Board to audit additional sales data reports

²² Return-It, “Annual Audit Information.” <https://www.return-it.ca/beverage/industry/annualaudit/>

if they suspect issues.²³ There are no performance indicators of this process yet, as the plan was approved in 2026. *(For the purposes of this guidebook, the definition of commingling is: sorting recycled/redeemed empty beverage containers by material type (glass, aluminum, plastic); size; and deposit rather than by beverage brand.)*

Germany: Certification and System Audits

Germany's DRS complements its technical fraud prevention measures with certification and audit requirements for key system participants. Deutsche Pfandsystem GmbH (DPG) defines common technical standards and certification requirements to ensure the reliable operation of reverse vending machines, counting centers, and other system components. Compliance is supported through regular audits and certification processes, contributing to the integrity and interoperability of the nationwide deposit-return system.

British Columbia: Bag Audits and Computerized Transportation System to Detect Fraud

As mentioned in the “Prevent” section, Encorp/Return-It has a computerized transportation system that can detect potential errors by depots. In addition to tracking the bags, the system helps to streamline the audits in the bag drop system at depots. The system flags bags in a random audit process and separates 2% of these bags that travel to a counting center. At this center, Encorp compares what the depot reports with what is actually in the bag. If only one bag is short, Encorp will deduct the deposit amounts and handling fees. If they find errors consistently with multiple bags, then they will deduct these amounts equivalent to the entire truckload. For example, if two bags are pulled from a truck with 100 bags, and both of the bags have inconsistencies, then Encorp will deduct the deposit amounts and handling fees for the entire truckload.

The auditing process is different in most U.S. states, with auditing established by individual distributors in some states. This guidebook discusses U.S. states' different auditing practices and results in the section titled “*Summary of U.S. States' Current Practices on Auditing of Distributors and Retailers.*” Additionally, to see the differences between each DRS state, please refer to the matrices on pages 50-57.

²³ Maine Beverage Redemption Group (Cooperative), “Commingling Cooperative Operations Plan.” Submitted September 2025, Supplemented December 2025, Revised by the Maine Department of Environmental Protection April 9, 2026.
<https://tinyurl.com/y93656xw>

Compliance Practices

Alberta: Mystery Shopper Program

In Alberta, a Mystery Shopper Program involves unannounced visits to retailers and bottle depots to assess compliance with program requirements. The purpose of this program, which began in 2015, is to assess refund accuracy and gather performance indicators for depots in order to maintain system integrity.

In the first half of 2025, Alberta Bottle Depots achieved a **98% compliance rate** due to programs like the Mystery Shopper Program.

Source: Alberta Depot Facebook page, "Counting your empties using machines and automation" (video), June 16, 2025.

Inspection of Beverage Containers on the Border

California: Border Inspection Stations

California has 16 border checkpoints that are on major highways entering the state.²⁴ The original purpose of these border inspections was to check vehicles for commodities (plants and produce) to prevent invasive species from entering the state. However, in recent years, agents have been able to inspect vehicles for out-of-state beverage containers entering the state. Regulations require that any person or entity bringing in empty beverage containers must provide a completed and signed Imported Material Report (IMR) if seeking entry and importing more than 25 lbs. of aluminum, 25 lbs. of plastic, and/or more than 250 lbs. of glass.²⁵

This border inspection serves as a means of both prevention and investigation that utilizes an existing program having to do with importation practices.

²⁴ California Department of Food and Agriculture. "CDFA Border Stations Help Thwart Recycling Fraud." November 5, 2012. <https://plantingseedsblog.cdfa.ca.gov/index.php/2012/11/05/cdfa-border-stations-thwart-recycling-fraud/>

²⁵ CalRecycle, "Imported Empty Beverage Container Reporting and Inspection Program." <https://calrecycle.ca.gov/bevcontainer/importation/>

Investigate

Alberta and California: Investigations of Noncompliance

As the entity responsible for beverage container depot compliance, BCMB investigates breaches of regulation, by-laws, policies, and agreements to determine depot noncompliance in **Alberta**. BCMB continuously gathers evidence using the Mystery Shopper Program, compliance audits, reports of suspicious activity from depots, and analysis of sales volumes in order to find any noncompliance. Additionally, when a breach is discovered, BCMB conducts *more* evidence-gathering and conducts interviews to gather as much information of the breach as possible. BCMB refers serious breaches to compliance hearings, described in the “Enforce” section below.

CalRecycle collaborates with the **California** Department of Justice and the California Department of Food and Agriculture to actively investigate and prosecute beverage container FF&E. As a part of this process, CalRecycle also conducts evidence-gathering in order to bring a party to administrative court. Additionally, CalRecycle has a public reporting hotline for citizens to report suspicious redemption activities.²⁶ This investigation activity is summarized in the quarterly public updates process, as described in the “Detect” section.

²⁶ CalRecycle. “Toll-Free Telephone Line for Reporting Fraudulent Beverage Container Recycling Activities.” <https://calrecycle.ca.gov/bevcontainer/fraud/>

Enforce

Enforcement of the Program

Alberta: Enforcement Compliance Hearings

BCMB can hold a hearing if they have reason to suspend or cancel a permit per the Depot By-Law. The authority to suspend or cancel a permit is delegated to a panel that is composed of three Board members, and if the panel finds that a depot has breached the terms of its permit, BCMB by-laws, or the Beverage Container Recycling Regulation (BCRR), the panel determines whether the permit should be suspended or cancelled. Where appropriate, alleged offenses may also be referred to the Government of Alberta for investigation and prosecution.

Alberta, Maine, and British Columbia: Staff to Execute Enforcement

Sufficient staffing is a critical component of fraud prevention and enforcement, as even strong laws and reporting requirements do not automatically equate to an effective system. Beverage container deposit-return systems require dedicated and trained personnel to run and enforce the system. Without sufficient staffing, even a well-designed system could experience gaps in oversight, monitoring, and enforcement. In **Alberta**, the BCMB has over 20 staff members, including a number of compliance officers dedicated to preventing FF&E in the deposit-return system. In **Maine**, new legislation in 2023 allowed for a staff increase from two people to five people; this increase allows for Maine to begin improving the effectiveness of its work to address beverage container fraud.²⁷ Additionally, in **British Columbia**, Encorp Pacific recently hired a Fraud Analyst specifically to detect and investigate consumer and depot fraud.

Many program administrators that CRI interviewed cited the desire for more staff to not only execute compliance, but also to help run their respective programs as a whole.

²⁷ State of Maine Chapter Law, ACTPUB Chapter 482 (2023).

<https://www.mainelegislature.org/legis/bills/getPDF.asp?paper=HP1225&item=5&snum=131>

Chapter 6

What States Can Do: Recommendations for Preventing FF&E

Based on the findings of this guidebook, and CRI's conversations with multiple stakeholders, we have developed the following recommendations that outline potential policy and administrative actions to prevent fraud, free riding, and errors. The goal of these recommendations is to strengthen the effectiveness, accountability, and integrity of the beverage container redemption systems in various jurisdictions.

1. Include specific anti-fraud measures in statute when developing a PRO. The PRO structure, in and of itself, *may* be able to address fraud, free riding, and errors, but if legislation is silent on the subject, then it would be up to the PRO's Board of Directors to decide what level of controls the organization uses. In the absence of legislative language on this issue, anti-fraud measures potentially could not be implemented. Therefore, the law must explicitly make various types of fraud and free riding illegal.
2. Create a comprehensive plan to address fraud and free riding, with rules and safeguards that guide the behavior of all parties and participants in the system. Ensure that the plan is funded and staffed, and that results are reported publicly on an annual basis.
3. Create a centralized data system that can provide real-time tracking and visibility into beverage sales, deposits collected, and redemption activity. With sales and deposit data in one system, regulators can cross-check distributor, retailer, and redemption data; this can help uncover fraud, free riding, and errors more efficiently and in a streamlined manner. Use shipment weights to confirm container counts.
4. Require deposit initiators to report sales data into a central body. That central body should audit sales.
5. Create a true deterrent effect with penalties. Even if an audit uncovers instances of underpayment, the penalties may be so low that they do not effectively impact the company found to be in noncompliance. The penalties must be consequential enough to dissuade companies from noncompliance with the program requirements.
6. Publish aggregated audit metrics and final enforcement outcomes to the extent permitted by applicable confidentiality laws.
7. Establish audit mechanisms and procedures to identify retailers acting as de facto distributors or otherwise bypassing deposit and fee obligations. Current audits often focus on manufacturers and distributors, which may leave gaps in detecting retailer-driven underreporting or avoidance.
8. Increase audit staff to be in line with the scale of the identified need. We have seen in Alberta, and now Maine, that having enough staff is critical to prevent, investigate, detect, and enforce fraud. The number of auditors in many jurisdictions should be increased substantially in order to recover any identified underpayments from additional distributors.

9. Consider using financial statements as another tool to identify underpayments and underreporting, in cases where this is appropriate and clear. Some states do not use a company's financial statements when conducting audits, yet this information could be extremely valuable.

10. Consider creating adequate and well-publicized incentives to encourage whistleblowers to report non-registered distributors and manufacturers to the system administrator.

11. Continue to search for companies that are not yet registered in the DRS; this goes hand-in-hand with more staff. More information could be gained by:

- Purchasing additional data;
- Cross-checking the system administrator's database against alcohol tax and wholesaler/distributor records to verify that beverage distributors are reporting consistent sales volumes across government agencies;
- Cross-checking the system administrator's database against state public health licensing records for bottled water manufacturers to identify unregistered producers;
- Creating a barcode database, requiring beverage distributors to provide enhanced reporting by beverage category rather than only by container type; and/or
- Providing clearer and more detailed public guidance on which beverage categories are covered under the deposit program, particularly for emerging or nontraditional beverage types.

12. Create a comprehensive system for reviewing container counts handled by redemption sites.

13. As stated in previous chapters, ensure that fraudulent behavior is explicitly prohibited in the law and establish a program to prevent fraud among all system participants. (*System participants are identified in the graphic in Chapter 3, "The Optimal Deposit-Return System."*)

Practices in Alberta That Prevent Fraud, Free-Riding and Errors



The Beverage Container Management Board (BCMB) is delegated by the Government of Alberta, and operates as the beverage container recycling system regulator, overseeing the collection and recycling of beverage containers. BCMB uses multiple tools to combat fraud, free-riding and errors. Many of these are listed below.

Acronym Key:

BCMB: Beverage Container Management Board

CSA: Collection System Agent

CSP: Collection Service Provider

R&R: Reporting and Remittance

Operating Agreements

BCMB uses operating agreements to establish requirements and responsibilities for key system participants, including the Alberta Bottle Depot Association (on behalf of depots), the Collection System Agent (on behalf of beverage manufacturers), and CSPs.

Advertising Policy & Framework

Under BCMB's Advertising of Deposit Policy, deposits must be displayed separately from the product price when beverage containers are advertised or sold in Alberta. BCMB may investigate instances of non-compliance and issue compliance fees, and where appropriate, refer matters to the Government of Alberta for further enforcement action.

Mystery Shopper Program

BCMB's Mystery Shopper program involves unannounced visits to retailers and bottle depots to assess compliance with program requirements, and help maintain the integrity of Alberta's beverage container system.

Enforcement Compliance Hearings

BCMB investigations involving serious non-compliance with the Depot By-law or Alberta's Beverage Container Recycling Regulation (BCRR) may be referred to a BCMB Board panel for a hearing for permit suspension or cancellation.

Annual Evaluation of CSA

Every year, BCMB evaluates the performance of the CSA, Alberta Beverage Container Recycling Corporation (ABCRC), to assess compliance with its operational, financial, and administrative responsibilities.

Staff to Execute Enforcement

The BCMB has over 20 staff members, including a number of compliance officers dedicated to preventing fraud, free-riding and errors in the deposit return system.

By-Laws

BCMB's by-laws establish the rules, requirements, and processes that govern Alberta's beverage container recycling system. Several by-laws specifically address BCMB's interactions with key system participants, including the CSA (Alberta Beverage Container Recycling Corporation [ABCRC]), and Alberta's network of beverage container depots.

R&R Framework

As part of BCMB's R&R Framework, beverage manufacturers, distributors, liquor agencies, and other registrants must register beverage containers with BCMB, report sales volumes through the CSA, and remit the appropriate deposits. The CSA must provide this information to BCMB for review. Manufacturers may be charged an administration fee when sales volumes or deposits are not reported, underreported or reported inaccurately.

Refund Compliance Program Audits

Under BCMB's Refund Compliance Program, all depots undergo independent third-party audits and must meet established refund compliance standards. Depots that do not meet these standards may enter a three-level Compliance Framework that includes additional audits, corrective actions, and compliance fees.

System Wide Notification

When depot operators identify concerns related to container returns, refund eligibility, or other matters that may affect the integrity of the beverage container recycling system, they may submit those concerns through BCMB's Quality Management System (QMS). BCMB reviews and actions those submissions as appropriate. Where warranted, BCMB may communicate relevant information to the broader depot network. This acts as a BCMB-led notification and information-sharing process.

Roles in the Alberta Deposit Return System



Beverage Container Management Board (BCMB)

Role: Regulate, oversee, report to the Government of Alberta's Ministry of Environment and Protected Areas.

BCMB is Alberta's only beverage container recycling system regulator. Our role is to administer the Beverage Container Recycling Regulation (BCRR) under Alberta's Environmental Protection and Enhancement Act. BCMB **does not** operate bottle depots, set Container Recycling Fees (CRFs), or manage the day-to-day collection and recycling of containers. Instead, BCMB:

- Regulates Alberta's beverage container recycling system
- Permits and oversees the system's network of bottle depot and CSA/CSP
- Registers and approves beverage containers sold in Alberta
- Approves acceptable recycling methods
- Administers compliance and enforcement with the regulation and its bylaws through inspections, audits, and reporting requirements
- Setting handling commissions (the compensation paid to depots for accepting and sorting beverage containers)
- Retail and retailer compliance; ensuring retailers apply deposits correctly and sell only registered containers.

Collection System Agent (CSA)

Role: Administer, collect from depots, recover, report.

Alberta Beverage Container Recycling Corporation (ABCRC) acts as Alberta's CSA, working on behalf of beverage manufacturers. ABCRC helps administer Alberta's deposit return system, collects fees from manufacturers, manages unredeemed deposits, and coordinates the recovery, recycling of many beverage containers, and sale of the beverage container materials as commodities.

Collection System Provider (CSP)

Role: Collect, refill, reuse.

The Alberta Beer Container Corporation (ABCC), operating as Brewers' Distributor Ltd. (BDL) manages Alberta's refillable beer container system on behalf of brewers. Refillable beer bottles can be washed and refilled multiple times before being recycled.

Bottle Depots

Role: Collect, refund deposits, sort container types.

Bottle depots are the entryway to Alberta's deposit return system. Individually-owned and operated and located in over 160 different communities across the province, bottle depots collect empty beverage containers, refund deposits to Albertans, sort empty beverage containers by material type, and prepare them for transportation and recycling.

Beverage Manufacturers, Distributors, Retailers, Agents, etc.

Role: Register, remit, report, sell/distribute beverages.

Companies that sell ready-to-serve beverages in Alberta are responsible for reporting, remitting, collecting and advertising applicable fees to help fund the system. Manufacturers, distributors, retailers, agents, etc. must register their beverage containers, report sales, and meet regulatory requirements established under BCMB regulation and by-law.

Consumers

Role: Purchase beverages (and applicable deposits and fees) and return the containers to bottle depots.

When consumers purchase beverages and return empty containers for refund, they help ensure valuable materials are recovered and put back to productive use, supporting economic activity instead of becoming waste. Consumers are incentivized to return their containers through Alberta's deposit values (\$0.10 for containers up to 1 litre, \$0.25 for containers over 1 litre).

Michigan's Anti-Fraud Enforcement Initiative:

The 2021 Funding Law and 2025 State Police Report

In 2021, Michigan enacted Public Act 139, establishing the Bottle Bill Enforcement Fund within the Department of Treasury. The law directs the Department of Treasury to provide funding to the Department of State Police (MSP) to enforce the DRS and investigate violations. It also requires MSP to report to the Legislature after 3 years on enforcement efforts, and that “the report must contain at least the minimum number of beverage and deposit containers seized and the deposit value in this state of those containers.”

In the 2025 report, MSP identified significant fraud risks in Michigan’s bottle deposit system, primarily involving distributors and dealers. They reported, “It was revealed through our findings that distributors and dealers have the greatest potential to commit the largest amount of fraud.”

According to their report, the main risks include:

- **Unreported out-of-state beverage sales:** Distributors might buy beverages outside of Michigan, collect deposits from dealers, and fail to report or remit those deposits to the state. The report states that no distributor audits have been conducted, making this fraud difficult to detect.
 - **Variation:** Some distributors might import and sell beverages without Michigan deposit markings, making enforcement difficult. Even though the law prohibits dealers from selling these products, the law does not clearly prevent distributors from supplying them.
- **Fraudulent return slips:** Dealers might inflate bottle return counts to receive excess credits from distributors, sometimes with the cooperation of delivery drivers or distribution center employees. The report cites one case involving \$65,000 in fraudulent returns over 2 years, with six additional dealer cases under prosecutor review.
 - **Variation:** Fraud can occur when delivery drivers or distribution center employees collude with secondary distributors to divert products intended for dealers. This practice inflates reported return rates and causes financial losses. A case under review by the Michigan Attorney General involves nearly **\$1 million in suspected bottle deposit fraud over 4 years**.

Overall, the report concludes that weaknesses in oversight and verification create opportunities for significant bottle deposit fraud.

Although Public Act 139 provides \$1 million per year for the state police, it does not create or mandate a dedicated DRS fraud unit, a minimum number of investigators, annual enforcement plans, performance metrics, investigation of specified fraud types, or coordination with the Department of Treasury or other state agencies. The law also does not require MSP to actually spend the allotted \$1 million of annual funding. While the Department of Treasury has statutory authority to investigate violations (MCL 445.573b(1)), it receives no dedicated funding for that purpose. CRI notes that while MSP found that “distributors and dealers have the greatest potential to commit the largest amount of fraud,” there isn’t alignment of the funding, the authority, and a mandate within a single agency to address the biggest financial fraud risk in the program.

Source: Michigan Department of State Police, “2025 Bottle Deposit Fund and Bottle Bill Enforcement Fund Report.”

Chapter 7

What the Laws Require: A 10-State Comparison

CRI interviewed state agency experts in states with deposit-return systems to identify and compare the statutory provisions across jurisdictions. The provisions highlighted in these matrices are ones that can prevent, detect, investigate, and enforce fraud, free riding, or errors in a DRS. Refer to the Acknowledgements page for the agencies that were interviewed in this process.

Acronym Key

ABCC = Massachusetts Alcoholic Beverages Control Commission
DEEP = Connecticut Department of Energy and Environment Protection
DLL = Vermont Department of Liquor and Lottery
OLCC = Oregon Liquor and Cannabis Commission
PRO = Producer Responsibility Organization
RC = Redemption Center

Responsible Party: Distributors/Initiators of Deposit

Responsibility: Ensuring Distributors Properly Report Sales of Beverage Containers

Bill Provision	CA	CT	HI	IA	MA	ME	MI	NY	OR	VT
Requirement for distributors to register with program administrator's registry for payment of deposits or unclaimed deposits	✓	✓	✓		✓	✓	Distributors must pay unclaimed deposits to state	✓	✓ *	✓
Requirement for distributors to individually register containers/UPC in a database				✓		✓		✓ (Taxation Dept. requires this, but not in statute)	✓	✓
Requirement for a special account to hold deposits and/or file monthly or quarterly reports	✓	✓			✓	✓	File annually	✓		File quarterly
Maintain records and allow inspection by state agencies	✓	✓ (Dept. of Revenue)	✓		✓	✓	✓	✓ (Taxation Dept.)	✓ (PRO)	
Containers are required to have a barcode		✓				✓				
Failure to comply can lead to prohibition of sales	✓ (Only alcohol)		Implied			✓		✓	✓ **	✓

Bill Provision	CA	CT	HI	IA	MA	ME	MI	NY	OR	VT
Statute explicitly states that distributors have the authority to audit loads from RCs or retailers			N/A			✓ (Statute provides authority, but not mandatory)	✓	✓ (On site in statute)		
Distributors audit loads from RCs in practice, but it is not explicit in law		✓		✓	✓			✓ (Allow off-site auditing)		✓ (Commingling group)
Distributors must establish internal control procedures to develop counts of containers sold			✓							
Distributors must conduct independent self-audits of beverage container sales			✓							

* In Oregon, distributors that join the distributor cooperative (program operator) work with the cooperative to identify products sold in the state and to remit deposits on their sales. Distributors that choose not to join the cooperative must register the products they sell in the state with the cooperative. However, they do not remit deposit funds to the cooperative for those sales (ORS 459A.732 and 733).

** In Oregon, there are two statutes that, when read together, can impact the distributor's options to continue sales in the state (at least under a liquor license). **ORS 459A.710 (3)** requires distributors to reimburse dealers and redemption centers for deposit refunds paid to consumers. **ORS 459.992** allows OLCC or the Department of Agriculture to revoke or suspend the license of any person that violates 459A.710.

Responsible Party: Redemption Centers

Responsibility: Ensuring Redemption Centers (RCs) Do Not Knowingly Accept Out-of-State Containers

Bill Provision	CA	CT	HI	IA	MA	ME	MI*	NY	OR	VT
Ban on redeeming (accepting) out-of-state or previously redeemed containers	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Redemption warning sign on out-of-state containers must be posted	Optional for RCs to post sign provided by CalRecycle	✓				✓	✓	✓	✓	
Large transaction record-keeping and certification	✓	✓				✓		✓		
Registration/licensing with state and compliance with whatever is required for certification by state; annual renewals	✓	✓		✓	✓	✓		✓**	✓	✓
RCs have various operational and/or record-keeping requirements related to both consumer protection and anti-fraud measures	✓	✓	✓			✓ (Bulk redemption)	✓ (Reporting of total containers redeemed to the state optional)		✓	

* While Michigan does not currently have any RCs, the statute includes language related to “Regional centers for the redemption of returnable containers,” and it is possible for the state to have RCs in the future (MCL Section 445.572, Sec. 2(3)).

** NY requires updated registrations if a business relocates. If it relocates outside the county it is currently in, it requires a new registration and will receive a new registration number. Also, if an RC changes ownership (other than a transfer within a family), then a new registration with a new registration number is required.

Responsible Party: Retailers

Responsibility: Ensuring Retailers Do Not Knowingly Accept Out-of-State Containers

Bill Provision	CA	CT	HI	IA	MA	ME	MI	NY	OR	VT
Daily redemption limits at dealers (i.e., maximum number of containers redeemed per person) – refer to chart on page 35		✓		✓	✓		✓	✓	✓	
RVMs must be independently audited for accuracy	CalRecycle tests during audits and inspections	Must retain redemption records for 2 years, subject to examination, but audits are not required								
Post redemption warning sign about out-of-state containers		✓				✓	✓	✓	✓ (OLCC sign)	

Responsible Party: State Agencies

Responsibility: Monitoring and Enforcement

Note that state agencies responsible for certain bill provisions vary among the states.

Bill Provision	CA	CT	HI	IA	MA	ME	MI	NY	OR	VT
Statute affirms that presenting out-of-state or previously redeemed containers may lead to civil penalties	✓ (Possibility of asset forfeiture)	✓		✓	✓	✓	✓	✓	✓	✓
Has record-keeping inspection authority (could be environmental agency for RCs and revenue agency for unclaimed deposits)	✓	✓	✓		✓	✓		✓	✓	
Create funding for state police to investigate and enforce redemption laws (DRS law)	Investigation technically occurs with Agriculture Inspection, Department of Justice, and CA Highway Patrol	Only in FY25-26					✓	✓ (Environmental Conservation Officers; not in statute (no funding mechanism), but they have authority)		
Assess interest and penalties on late payments of deposits or unredeemed deposits	✓	✓			✓		✓		✓	
Authorized to conduct audits of distributors' reports of beverages sold	✓	✓	✓		✓		Implied	Dept. of Taxation has done so in certain cases	✓	✓

Bill Provision	CA	CT	HI	IA	MA	ME	MI	NY	OR	VT
State agency or PRO has an active and ongoing program to audit beverage container sales data that are reported by distributors	✓	✓	✓						✓	No active program, but Dept. of Taxes has the ability to audit
With regard to beverage sales audits, annual metrics are reported publicly	✓									
State agency or PRO has a process in place to identify new distributors on an ongoing basis	✓	✓				✓			✓	
Has the authority to examine records of RCs	✓	✓	✓						✓	
Creates training program for RCs and requires them to pass a test before becoming certified	✓									
Statute requires state agency to provide rules by which RCs must operate	✓		✓		✓ (In regulations)	✓			✓	
Conducts routine but random inspections of RCs to ensure their operations are compliant with all aspects of the law	✓	Not required, but may examine	✓ (Office of the Auditor)			✓			✓	
Provides guidebook or guidance for how distributors are to calculate and report beverage sales to the state	✓	✓				✓			✓	✓

Bill Provision	CA	CT	HI	IA	MA	ME	MI	NY	OR	VT
State agency that monitors sales of alcoholic beverages to have some role in monitoring and enforcing beverage container law (can include inspections of retailers)					✓ (Informal partnership with ABCC)				✓	✓ (DLL responsible for labeling and registration of liquor containers)
Routinely inspects retailers for compliance with law (price labeling, deposit on receipt, reporting sales, posting signage, etc.)	✓				Responds to complaints on an as-needed basis	✓		Inspections are complaint-based	✓	
Has visibility into the container volumes at RCs	✓	✓ (DEEP asks for records quarterly)			With registration	✓				

Responsible Party: Redeemers/Consumers

Responsibility: Returning Eligible Beverage Containers Through Authorized Channels and Complying With Program Requirements

Bill Provision	CA	CT	HI	IA	MA	ME	MI	NY	OR	VT
Required to only redeem containers that originated in that state (statute specifies monetary penalties for violations)	✓	✓		✓ (Fines)	✓ (Fines)	✓	✓ (Fines and criminal penalties)	✓	✓ (Low-grade criminal penalties)	✓
Prohibited from collecting the refund value of a container the second time	✓	✓		✓	Implied			✓	✓	
Can receive penalties for violating statute	✓	✓		✓	✓	✓	✓	✓	✓	✓

Chapter 8

Auditing in Practice: Current State Approaches

CRI submitted information requests to DRS states with the intent of learning their practices on auditing beverage container sales and/or redemption data.

The auditing of beverage container sales is a critical tool for addressing fraud, free riding, and errors. Auditing helps identify discrepancies by verifying that beverage sales, deposit payments, and redemption claims are accurate and compliant with program requirements. Additionally, the possibility for distributors and retailers to be audited can serve as a deterrent for fraud and encourages compliance. It is important to note that while audit findings represent a relatively small share of total transactions, the financial impact of these findings can still be significant. There are different auditing processes in every state (see pages 50-57). Beverage companies also report sales and redemption numbers to many of the U.S. DRS states so the states can calculate the program redemption rate.

We contacted the department in each U.S. DRS state responsible for maintaining records of beverage container deposit data, if any. Not all states collect these data. We asked the following questions:

- How many companies report beverage container sales and redemption numbers to your Department each year?
- Does your Department conduct routine audits of beverage distributors every year? How are companies selected for auditing? Random selection? Risk-based selection? Both?
- Over the last 3 years (2023, 2024, and 2025), how many companies were audited each year?
- What was the dollar amount of audit findings for each of those 3 years?
- Does your Department have an ongoing program to find new distributors that have entered the marketplace?

We received responses from five of the 10 DRS states – California, Oregon, Vermont, Massachusetts, and Connecticut – and include the responses below. Since the states are of different sizes (ranging from less than 1 million in population to 40 million), and since the types of covered beverages vary, the number of beverage distributors varies from state to state by two orders of magnitude (92 in Vermont versus more than 7,000 in California).

California

Agency Consulted: CalRecycle Office of Audits

The information below is from both the CalRecycle Office of Audits and the CalRecycle Beverage Container Recycling Fact Sheet (published annually).

Within CalRecycle, there are distinct administrative units that receive reports and fees from beverage manufacturers and distributors and aggregate sales data. As of August 1, 2026, the total number of

registered Beverage Manufacturer and Distributor (BMD) companies was 6,944.²⁸ Some of these companies have agreements with other companies to report processing fees and sales numbers of California Redemption Value (CRV) containers on their behalf. In addition, the number of redeemed containers is not provided by registered BMDs – these numbers are provided by redemption centers themselves.

The Office of Audits is a separate unit within CalRecycle. The Office of Audits conducts audits of beverage distributors each year using a risk-based system for selecting auditees.

See the chart below for the number of audits and monetary value of findings each year in California from 2013 to 2025. The values were obtained from the CalRecycle Beverage Container Recycling Fact Sheet. For context, in FY24-25, California's program collected nearly \$1.6 billion in redemption fees from beverage distributors, so the 2025 audit findings of \$8.4 million are equivalent to one-half of 1% of deposits initiated.

CalRecycle Audit Findings for Beverage Distributors and Manufacturers, 2013-2025

Source	Calendar Year	Number of Audits	Value of Audit Findings
<i>CalRecycle Beverage Container Recycling Fact Sheet</i> ²⁹	2013	19	\$2,417,000
	2014	62	\$8,312,000
	2015	112	\$6,570,000
	2016	68	\$17,640,000
	2017	66	\$2,760,000
	2018	51	\$5,813,000
	2019	58	\$7,011,000
	2020	71	\$3,334,000
	2021	69	\$9,047,000
	2022	68	\$9,064,000
	2023	55	\$2,397,774
	2024	48	\$15,772,030
	2025	55	\$8,396,102

²⁸ CalRecycle, "Beverage Container Recycling in California" Fact Sheets, 2013 to 2025. 2025 Fact Sheet link: <https://www2.calrecycle.ca.gov/Docs/Publications/139453>

²⁹ Ibid.

As there were 6,944 registered companies at the time this report was published, that means that typically less than 1% of the companies are audited annually.

The Office of Audits is not in charge of registering new distributors. During an audit, the Office may encounter a company that is not in the program, and that company will be referred to the Manufacturer and Distributor Registration Unit. The Unit may find new BMDs as potential participants through the following means:

- New company inquiry
- Participant customer/supplier list
- Product determination/label review requests
- Audit referral or inspections referral
- Competitor complaint
- Department of Alcoholic Beverage Control (ABC) – Certificate of Compliance (COC) and In-State Beer Licenses

Redemption volumes are reported to CalRecycle by certified recycling centers, the dealer cooperative, curbside programs, and drop-off programs and other certified recyclers. In addition to auditing beverage distributors, CalRecycle audits recycling centers (i.e., redemption centers). Of the 1,286 inspections conducted in 2025, notices of noncompliance were issued to 518 centers, and notices of violation were issued to 263 centers. There were 76 investigations total in 2025.³⁰ Recycling centers get audited by both the CalRecycle Technical Assistance Branch and the Enforcement and Compliance Branch. The centers may be audited while they are on probation, which helps CalRecycle determine if they need more technical assistance and/or are ready to become permanent. Recycling centers are also audited if CalRecycle suspects fraud or significant noncompliance.

Oregon

Organization Consulted: Oregon Beverage Recycling Cooperative (OBRC)

In 2025, 441 companies reported beverage container sales and redemption numbers to OBRC. This reporting is either biannually or monthly depending on sales volume. Companies must self-report beverage sales on the OBRC web portal as well as send a fee payment (based on packaging types and volumes) with deposits at the time of reporting.

OBRC has conducted audits each year since the organization was founded in 2008; these audits are through a random selection based on risk category. There are tiers of auditing frequency based on sales

³⁰ Ibid.

numbers and company scale. OBRC audits 17 companies each year, accounting for 3.85% of total companies.

OBRC has various methods in place to find new distributors that have entered the marketplace. One substantial method includes referrals by the Oregon Liquor and Cannabis Commission (OLCC) when a new license or permit is issued that provides for Direct-to-Retail (DTR) or Direct-to-Consumer (DTC) sales of beverages subject to the DRS. In addition to traditional distributor licenses, the OLCC provides the referrals for DTR and DTC licenses or permits. OLCC provides information to the new licensee or permittee that they may have DRS obligations and directs them to reach out to OBRC. Additionally, OLCC issues annual reminders to all off-premises licensees and permittees that may sell DRS containers. Other means of finding new distributors include through inventory evaluations in the field, third-party reporting, and redemption data.

Vermont

Agency Consulted: Vermont Department of Taxes

As of August 2026, 92 companies reported beverage container sales and redemption numbers to the Vermont Department of Taxes. While the state does have the ability to audit companies, it does not currently have an active audit program. Therefore, there were no companies audited within recent years, and no dollar amount of audit findings.

Additionally, the Department of Taxes does not have a process to identify new distributors. Distributors register with the Agency of Natural Resources (ANR), as that is the agency that approves them. The Department of Taxes does periodically send data to ANR so they can see the companies that have been filing. If the Department of Taxes is missing a company, ANR contacts it to request that it register with the Department and file.

Massachusetts

Agency Consulted: Massachusetts Department of Revenue

As of August 2026, 271 companies were registered with an “Abandoned Bottle Deposit Account” in Massachusetts. The number of audits conducted each year, as well as the dollar amount of audit findings, is shielded from disclosure by General Law 62C, section 21(d). The Department of Revenue does not have an ongoing program to find new distributors that have entered the marketplace.

Connecticut

Agency Consulted: Connecticut Department of Revenue Services

The Department of Revenue Services stated they are not required to answer these questions under the Freedom of Information Act, Conn. Gen. Stat. § 1-210. As for Questions 2-5, the Department is statutorily prohibited from disclosing such records.

According to the Connecticut Department of Revenue Services FY24-25 Annual Report, 199 entities reported beverage container sales on a quarterly basis for FY24-25.³¹

Additional Inquiries

CRI sent out data requests to all states with deposit-return systems, with the exception of Iowa. The Maine Department of Environmental Protection, Michigan Department of Treasury, and the New York Department of Taxation and Finance responded that they could not provide the information that was requested in this section. The Hawai'i Department of Health did not respond to the information request in time for publication.

Additional Case Studies: New York

Information Obtained From a Report by the New York State Office of the State Comptroller

Per the 2017 report titled, "Controls Over Unclaimed Bottle Deposits: Department of Taxation and Finance," the New York State Office of the State Comptroller (Division of State Government Accountability) audited the Department of Taxation and Finance. "The objectives of (their) performance audit were to determine whether the Department of Taxation and Finance is enforcing registration and reporting requirements on deposit initiators, and is collecting and depositing the required unclaimed bottle fund in the General Fund."³² The initial performance audit was conducted in 2017; follow-up review was conducted in 2019.

The Comptroller recommended automation of penalty assessments for late or missing reports, as well as the development of procedures for providing routine review of return filings, investigating anomalies, and

³¹ Connecticut Department of Revenue Services, "FY 24-25 Annual Report.

<https://portal.ct.gov/-/media/drs/research/annualreport/drs-fy25-annual-report.pdf?rev=de2b3fbb654d4143808a2aec454ee90e&hash=1A2B5B9B3E42CD1F6977AEF1B01ED7F2>

³² New York State Office of the State Comptroller. "Controls Over Unclaimed Bottle Deposits: Department of Taxation and Finance" (Audit), December 2017. <https://www.osc.ny.gov/files/state-agencies/audits/pdf/sga-2018-16s96.pdf>.

identifying candidates for review. For the 515 deposit initiators in the system, the auditors found that nearly 90% of reports were timely filed, and that penalties and interest assessments on late filers yielded more than \$4 million in revenue over a 3-year period, which was approximately 1% of program revenue of \$320 million over that period.

New York State Multi-Agency Task Force

In 2023, the Department of Environmental Conservation announced that they would be leading a “statewide multi-agency effort to help prevent returnable container schemes that defraud the state.....”³³ Other agencies involved in the Task Force include the State Department of Taxation and Finance, the Department of Agriculture and Markets, the State Liquor Authority, and others.

³³ New York State Department of Environmental Conservation. “DEC to Lead Multi-Agency Effort to Investigate Bottle Bill Fraud,” October 23, 2023. <https://dec.ny.gov/news/press-releases/2023/10/dec-to-lead-multi-agency-effort-to-investigate-bottle-bill-fraud>

Additional Case Study

CalRecycle's Inspection and Detection Program Related to Beverage Retailers and Redemption Centers

As summarized in a January 2026 budget change proposal, CalRecycle currently employs "11 inspectors charged with administering site visits to dealers and recycling centers, paired with 30 investigators investigating potential fraud threats to the BCRP [Beverage Container Recycling Program]." ³⁴ As of August 2026, California had more than 1,200 recycling centers and approximately 30,000 dealers (beverage retailers). ³⁵ In addition, a new beverage cooperative recently began operation.

Over the past 5 years, CalRecycle's inspections section has conducted an average of 2,149 dealer inspections annually, equating to approximately 195 inspections per inspector per year. ³⁶ The inspections unit also responds to consumer complaints regarding recycling centers and dealer redemption services. According to the budget proposal, "The branch has administered an average of 332 investigation cases annually over the past five years."

In 2026, CalRecycle requested authorization to hire seven additional compliance staff, including two Associate Governmental Program Analysts, one Office Technician to administer incoming complaints, three Special Investigators to address fraud more proactively through prevention and education rather than responding after fraud has occurred, and one Staff Services Manager to oversee the expanded compliance effort. The total annual cost of these seven new positions, including salaries, benefits, and overhead, was estimated at approximately \$1 million. ³⁷ The state Legislature approved the positions in June.

³⁴ State of California Budget Change Proposal 3970-030-BCP-2026-GB, "3715 – Beverage Container Recycling and Litter Reduction," January 2026 (for Fiscal Year 2026-2027). https://bcp.dof.ca.gov/2627/FY2627_ORG3970_BCP8743.pdf

³⁵ Ibid.

³⁶ Ibid.

³⁷ Ibid.

Chapter 9

Building a Stronger System: A Framework for Preventing FF&E

First, what do we mean by "preventing" fraud, free riding, and errors in DRS programs, and why do we not speak of "eliminating" them? How much fraud and what level of error are acceptable? Fraud and errors are clearly costly to a system, but fraud prevention efforts can be costly as well. An optimal system seeks to strike a balance between reducing fraud and avoiding excessive spending on prevention measures that yield diminishing returns.

The experts we interviewed explained that achieving zero fraud, zero free riding, and zero errors would be prohibitively expensive. In contrast, setting high standards and maintaining a very low but achievable fraud and error rate—for example, 2%—may represent a more practical and cost-effective objective.

At the same time, this guidebook does not merely advocate for fraud "prevention," because prevention is an activity that may or may not produce the desired outcome. Fraud prevention should focus on measurable results and can be paired with a specific numerical target. As discussed in Chapter 5, achieving a fraud prevention target requires a combination of prevention, detection, investigation, and enforcement.

Goal-Setting and Measuring Progress

The most effective programs establish clear numerical targets for tolerable fraud, free riding, and error rates. These targets are widely understood by all program participants; and program structures, incentives, penalties, and reporting mechanisms are designed to measure progress, track outcomes, and achieve the stated goals.

A Framework for Effective Legislation

The following eight questions provide a useful framework for evaluating whether a DRS legislative proposal is likely to prevent fraud, free riding, and errors. If any of these elements are missing or inadequately addressed, the effectiveness of the program may be compromised.

1. Who must comply?

The law must contain a clear and legally sound description of the individuals or entities required to perform specific actions—or prohibited from engaging in particular activities. Ambiguity regarding who is subject to the law creates opportunities for confusion, loopholes, and noncompliance.

2. What are they required to do?

The required actions must be defined clearly enough that compliance can be objectively determined. What constitutes compliance? What records must be submitted? If timing is important, the law should specify deadlines, reporting schedules, and other performance requirements.

3. What records and data must be maintained?

The law should clearly identify what information regulated parties are required to collect, maintain, and report. Record-keeping requirements should specify the type of data to be retained, retention periods, reporting formats, and the circumstances under which records must be made available for inspection.

Effective enforcement depends on the availability of reliable data. There is an increasing trend toward the use of data science to detect anomalies in the system that can be investigated to see if fraud is occurring.

4. Can compliance be verified?

Compliance requirements should be designed so that they can be independently verified. Regulators should be able to determine, through records, inspections, audits, or other evidence, whether a regulated entity has complied with the law. Requirements that cannot be verified are difficult, if not impossible, to enforce.

5. Who is responsible for monitoring compliance?

The law should clearly identify the agency or entity responsible for monitoring compliance, conducting audits and inspections, investigating potential violations, and enforcing program requirements. Clear assignment of responsibility is essential for accountability.

6. Does the responsible agency have sufficient authority and resources?

Adequate staffing, funding, technical expertise, and legal authority are necessary to monitor compliance and enforce the law effectively. Administrators should have the authority to obtain records, conduct inspections, perform audits, investigate suspected violations, and take enforcement action when warranted. The oversight agency or organization should not only have resources, but they must have a **mandate** to complete the oversight tasks. If the system is operated by a state government agency, it should be clear to all parties which other government agency is responsible for oversight of the program.

7. Are incentives, penalties, and enforcement mechanisms sufficient?

Participants should benefit more from complying with the law than violating it. Penalties must be clearly defined and substantial enough to deter violations. If the financial benefits of fraud exceed the likely consequences of being caught, violations may simply become a cost of doing business.

Ideally, monetary penalties should fully recover the value of financial losses due to fraud, plus interest, and include an additional penalty sufficient to deter future violations. Equally important, monitoring and enforcement activities must occur frequently enough to create a credible risk of detection. Sporadic or nonexistent enforcement can encourage rule-breaking and undermine program integrity.

8. Are results being measured and publicly reported?

The responsible agency should prepare and publish an annual report summarizing its monitoring, auditing, investigation, and enforcement activities. The report should include metrics such as the number of audits completed, the percentage of regulated entities audited, the number and type of violations identified, the dollar value of findings and penalties assessed, and the amounts recovered through enforcement actions.

The report should also summarize key program integrity measures and progress toward established fraud and error reduction goals. For example, the report might state that 100 distributor audits were completed, resulting in \$2 million in findings³⁸ and penalties, or that 90% of audited recycling centers had container counts within 2% of reported volumes. Public reporting promotes transparency, demonstrates accountability, helps policymakers evaluate program effectiveness, and provides stakeholders with confidence that the program is being administered fairly and effectively.

Taken together, these eight elements create a continuous cycle of accountability: defining obligations, generating verifiable data, monitoring compliance, enforcing the rules, measuring outcomes, and reporting results.

³⁸ In this context, “audit findings” are monetary amounts due and payable to the PRO for underpaid deposits, and/or producer fees.

Chapter 10

Building Stronger Laws: Model Legislative Definitions

Definition of a Deposit Initiator: Purpose and Goals

- Definitions should encompass all types of distribution, including warehousing, direct store delivery (DSD), online sales, home and office delivery, vending machines, on-premise sales, etc.
- Definitions should be inclusive but as brief and clear as possible.
- Definitions should be written in a way that avoids conflicts with the Interstate Commerce Clause and the three-tier system of alcohol distribution present in U.S. states.
- Definitions should eliminate loopholes; currently, the definitions in every U.S. state with DRS laws contain one or more loopholes. All of the states' definitions fail to address e-commerce, and nine of the states' definitions fail to provide clarity regarding on-premise sales.
- Language should ensure there is no conflict between different definitions.

Nomenclature

Nomenclature for this concept is not standardized, and terminology varies by geographic region. Other names for deposit initiator used in various states and countries include:

- Initiator of deposit
- Producer
- Distributor
- Manufacturer
- Importer
- First Importer

Model Legislative Definitions (Fully Inclusive)

Below is **draft-ready statutory language** that synthesizes best practices and closes identified gaps.

A. Deposit Initiator (Recommended Definition)

“Deposit initiator” means any person who manufactures, imports, distributes, sells, or offers for sale a beverage in a beverage container in this state, including sales made directly to consumers, and who is the first to place such beverage into the state market for sale or distribution.

The term includes, but is not limited to, entities that conduct sales through retail establishments; electronic commerce; vending machines; subscription services; or delivery to homes, offices, or other locations within the state.

B. Option for the Obligated Deposit Initiator to Assign the Responsibilities Related to Paying Deposits and Processing Fees to Another Party in the Supply Chain

This is a mechanism that, in practice, allows the deposit initiator – whether that be a brand owner or other legally responsible entity – to have another company, such as an in-state contract packer or affiliated manufacturer, carry out the reporting and payment obligations. The legal responsibility remains with the deposit initiator, but the reporting and paying of deposits and fees can be handled by another entity, with full disclosure to the program administrator that normally receives such deposits and fees. The statute or regulations can set out the specifics of the reporting form and the details on the information that needs to be reported.

Allowance of Report-and-Pay-on-Behalf-of-Agreements

A deposit initiator may enter into an agreement with one or more distributors to report and pay on behalf of another distributor. The program administrator shall adopt regulations to specify how the agreement is to be documented and reported. Nothing in this article shall be construed to require the program administrator to transfer any of the responsibilities set forth in this article.

Examples from states include:

“Title 14 California Code of Regulations § 2300, entitled “Applicability”: “A distributor shall notify the Division in writing if another entity has agreed to report and make payments on the distributor's behalf within twenty (20) working days of the initial agreement.” Title 14 CCR § 2301 (“Registration” for distributors) and § 2231 (“Registration” for manufacturers) supplement this.

In Oregon’s Extended Producer Responsibility (EPR) for packaging law, see ORS 459A.869 (4): “A producer is not required to be a member of a producer responsibility organization if, for all covered product the producer sells, offers to sell or distributes in or into this state, another person has registered with a producer responsibility organization as the producer responsible for that covered product under ORS 459A.860.”

C. Dealer / Retailer (Recommended Definition)

“Dealer” or “retailer” means any person who sells, offers for sale, or otherwise provides beverages in beverage containers to a consumer in this state, whether through a physical location, vending machine, electronic commerce platform, or delivery service.

D. On-Premise (HoReCa) Provision

A person who sells beverages for consumption on the premises, including bars, restaurants, entertainment venues, and similar establishments, shall be considered a dealer.

Such a dealer shall be subject to applicable obligations; however, the requirement to collect a deposit from the consumer and/or accept deposit containers from redeemers may be modified or waived where the beverage container is not removed from the premises by the consumer.

Note that this definition recognizes that bars, restaurants, entertainment venues, and similar establishments are part of the system. The definition also separates financial responsibility for paying the deposit upstream versus the consumer charge.

E. Optional – Explicit E-Commerce Clause (Recommended)

A person shall be considered to be selling or offering for sale beverages in this state if the person sells or ships beverages to an in-state consumer, regardless of the seller’s location.

F. De Minimis Requirement

“A de minimis deposit initiator” means a person who sells fewer than 50,000 covered beverage containers into the state during a calendar year.

An effective **de minimis threshold** for deposit initiators should balance four competing goals:

1. Administrative efficiency
2. Avoiding loopholes and arbitrage
3. Fairness between large and small producers
4. Maintaining comprehensive market coverage

All covered beverages sold in a state should remain legally subject to deposit obligations. In contrast, full exemption could create arbitrage opportunities. For example, retailers could source “exempt” products and collect deposits anyway, with no upstream party responsible. Full exemption could also encourage strategic fragmentation. A producer might split brands/entities to remain below the threshold and avoid obligations. This issue has emerged in cannabis taxation, alcohol distributions, and e-commerce marketplace rules. See additional information for recommended tiered thresholds and model provisions.

Recommended De Minimus Tiered Thresholds

Tier 1 – Micro Producers

- Threshold: < 50,000 containers/year sold into a state
- **Requirements:**
 - Annual reporting only
 - Simplified reporting form
 - No monthly filings
 - No mandatory third-party audit
 - Deposit still applies

Tier 2 – Small Producers

- Threshold: 50,000 to 500,000 containers/year
- **Requirements:**
 - Quarterly reporting
 - Simplified accounting standards
 - Subject to audit if discrepancies emerge

Tier 3 – Standard Deposit Initiators

- Threshold: > 500,000 containers/year
- **Requirements:**
 - Monthly reporting
 - Standard remittance
 - Full audit authority

Model Compliance Provision

A de minimis deposit initiator shall remain subject to deposit and labeling requirements, but may satisfy reporting and remittance obligations through annual filing procedures prescribed by the system administrator.

Model Anti-Abuse Provision

Related entities under common ownership or control shall be aggregated for purposes of determining de minimis status.

Chapter 11

Distributor Reporting: What the 10 Deposit States Require

In each of the 10 states with deposit-return systems, distributors have certain reporting requirements. In some states, they must provide beverage container sales and redemption numbers, and in others they must report information from the accounts that hold the revenue collected from deposits. Other states do not have any requirements. The following information is organized by frequency of reporting.

Monthly Reporting

California

Distributors must report data on beverage container transfers or sales (by material type and size) and make redemption payments to CalRecycle on a monthly basis. In certain circumstances, distributors may report and pay annually (those that demonstrate a pattern of compliance and owe less than \$75,000 in redemption payments per calendar year or those that are new and project to owe less than \$37,500 per calendar year).^{39 40}

Massachusetts

In Massachusetts, distributors must establish an online "Deposit Transaction Fund" account that holds all the deposits from the beverage containers sold in the state. Distributors must report any deposits collected, deposits paid out for containers redeemed, and the fund account balance to the Massachusetts Department of Revenue on a monthly basis. Distributors can either mail the form or submit the form through MassTaxConnect, an online reporting system, after the end of each monthly reporting period.^{41 42}

³⁹ CalRecycle. "Reporting and Payments for Beverage Distributors and Manufacturers."

<https://calrecycle.ca.gov/bevcontainer/bevdistman/reportpay/>

⁴⁰ Cal. Admin. Code tit. 14, § 2311

⁴¹ Massachusetts Department of Environmental Protection. "Guide to the 1983 Bottle Bill for Distributors & Bottlers".

<https://tinyurl.com/2sfb6vpk>

⁴² 830 CMR 94.323.1: Collection of Amounts Deemed to Constitute Abandoned Deposit Amounts

Quarterly Reporting

Connecticut

Deposit initiators (i.e., distributors) must establish an online special account that holds all the deposits from the beverage containers sold in the state. Deposit initiators must report an account balance, the deposits, and the withdrawals (from the special account) to the Connecticut Department of Revenue Services on a quarterly basis. Deposit initiators file online through myconneCT, an online reporting system.⁴³

New York

Deposit initiators must establish a "refund value account" that holds all the deposits from the beverage containers sold in the state. Deposit initiators must report any deposits collected, deposits paid out for containers redeemed, and an account balance (from the refund value account) on a quarterly basis to the Department of Taxation. Deposit initiators file online through the Tax Online Services Portal.⁴⁴

Vermont

Distributors must report the number of containers sold and redeemed (by deposit amount) to the Vermont Department of Taxes on a quarterly basis. Distributors file online through myVTax, an online reporting system.⁴⁵ Additionally, the state requires a UPC product registry; distributors or manufacturers must register beverage containers with the Vermont Agency of Natural Resources by name of beverage container and size.^{46 47}

Optional: Michigan

Distributors can fill out a "Quarterly Refund Report" if over-redemption occurs, in order to request a refund from the Department of Treasury. More on Michigan in "Annual Reporting" below.

⁴³ Connecticut Department of Revenue Services. "Beverage Container Deposit Information."

<https://portal.ct.gov/drs/taxes/bottle-deposits/ct-bottle-deposits>

⁴⁴ New York Department of Taxation and Finance. "Beverage container deposits." <https://www.tax.ny.gov/bus/bev/bevcnt.htm>

⁴⁵ Vermont Department of Taxes. "Abandoned Beverage Container Deposits."

<https://tax.vermont.gov/businesses/beverage-deposit>

⁴⁶ 10 V.S.A § 1528

⁴⁷ Vermont Agency of Natural Resources, "Bottle Bill Registration." <https://anrweb.vt.gov/DEC/BottleBill/>

Annual reporting

Hawai‘i

Distributors must report sales data (by material and size) to the Hawaii Department of Health on either a monthly or semiannual basis. Distributors who annually import or distribute over 100,000 beverage containers per year must report monthly, and distributors who import or distribute less than 100,000 beverage containers per year must report semiannually. Distributors fill out a form (which form is dependent on how many beverage containers they import) and mail the completed form after the end of each reporting period.^{48 49}

Michigan

Distributors must report any deposits collected, any deposits paid out for containers redeemed, and the difference between these numbers (i.e., the unredeemed deposits) to the Michigan Department of Treasury on an annual basis. Additionally, distributors must pay the reported amount of unredeemed deposits to the Department of Treasury.⁵⁰ Distributors fill out this form online through MiTreasury eServices.

Oregon

Distributors who are members of the Oregon Beverage Recycling Cooperative (OBRC) must report the number of beverage containers sold and redeemed by material type directly to OBRC. OBRC then aggregates this data and submits the data as a report to the Oregon Liquor and Cannabis Commission (OLCC). Distributors who are not members of OBRC must report sales and redemption data directly to the OLCC on an annual basis and pay an annual fee. Distributors submit these reports online through the OLCC Annual Beverage Container Sales and Returns Report form.^{51 52}

⁴⁸ Hawaii Department of Health. "Hawaii Deposit Beverage Container Program Monthly Distributor Report Form."

<https://health.hawaii.gov/hi5/files/2021/09/Monthly-Distributor-Report-Form.pdf>

⁴⁹ Hawaii Department of Health. "Hawaii Deposit Beverage Container Program Semi-Annual Distributor Report Form."

<https://health.hawaii.gov/hi5/files/2021/09/Semi-Annual-Report.pdf>

⁵⁰ Michigan Department of Treasury. "Bottle Deposit: Distributors and Manufacturers."

<https://www.michigan.gov/taxes/business-taxes/misc/bottle-deposit/distributors-and-manufacturers>

⁵¹ Oregon Liquor and Cannabis Commission. "Beverage Container Return Data."

<https://www.oregon.gov/olcc/pages/beverage-container-return-data.aspx>

⁵² Oregon Liquor and Cannabis Commission. "Beverage Container Annual Reporting and Registration Requirements."

<https://www.oregon.gov/olcc/pages/bottlebillreport.aspx>

Other

Iowa

Distributors **are not required** to report general redemption data. However, the state requires UPC registration for each beverage container with the Department of Revenue through GovConnectIowa.

Maine

Initiators of deposit (i.e., distributors) must report beverage container sales and redemption data (by material type, beverage type, size, and deposit) to both the Maine Department of Environmental Protection (DEP) annually and the Commingling Cooperative starting in 2026. Data reported to the Cooperative must be reported in accordance with the Commingling Cooperative plan. At the time that this report was published, the frequency of reporting to the Commingling Cooperative was undecided by the Cooperative Board, but it can be monthly, quarterly, or annually, depending on the option the Board chooses. The reporting frequency can also be changed annually (per the Board).^{53 54} Initiators of deposit must also register beverage containers by beverage category, size, and type.⁵⁵ At the time that this report was published, the body to which initiators of deposit must register beverage containers was shifting from the Maine DEP to the Commingling Cooperative.

⁵³ 38 M.R.S. §3119: Reporting Requirements

⁵⁴ 38 M.R.S. §3119: Commingling of Beverage Containers

⁵⁵ 38 M.R.S. §3105: Labels; stamps; brand names

References and Resources

The following state statutes were used in the Chapter 7 matrices as well as throughout the guidebook.

Connecticut: Conn. Gen. Stat. § 22a-243. (Formerly § 22a-77)

California: California Public Resource Code, § 14500 et seq.

Hawai‘i: Hawaii Revised Statute §§342G

Iowa: Iowa Code Chapter 455C

Maine: 38 M.R.S. §3101 et seq; *Regulations:* 06-096 C.M.R. ch. 426

Massachusetts: Mass. General Law Ann. Ch 94, § 321-327; General Law Chapter 62C, § 21(d)

Michigan: MCL § 445.571 – 445.576

New York: NY Environmental Conservation Law § 27-1001 – 27-1019

Oregon: Or. Rev. Stat. § 459A.700 – 459A.754

Vermont: Vt. Stat. Ann. Title 10, § 1521 – 1529

Additional Resources and Citations:

Beverage Container Management Board (Alberta), “Registering a Beverage Container.”

<https://www.bcmb.ab.ca/selling-distributing-beverages/registering-beverage-container/>

British Columbia Ministry of Environment, “Administrative Penalties.” April 2016.

https://www2.gov.bc.ca/assets/gov/environment/research-monitoring-and-reporting/reporting/reporting-documents/environmental-enforcement-docs/administrative_penalty_facts_sheet.pdf

Connecticut Department of Revenue Services, “FY 24-25 Annual Report.”

<https://portal.ct.gov/-/media/drs/research/annualreport/drs-fy25-annual-report.pdf?rev=de2b3fbb654d4143808a2aec454ee90e&hash=1A2B5B9B3E42CD1F6977AEF1B01ED7F2>

Maine Department of Environmental Protection, “Annual Product Stewardship Report.” February 2026.

[https://www.maine.gov/dep/publications/documents/archive/legislative%20reports/2026/2026%20Final%20Product%20Stewardship%20Report%20with%20Comments%20\(1\).pdf](https://www.maine.gov/dep/publications/documents/archive/legislative%20reports/2026/2026%20Final%20Product%20Stewardship%20Report%20with%20Comments%20(1).pdf)

Oregon Liquor and Cannabis Commission, “Bottle Bill Update: Distributor Requirements.” Revised

September 2022. https://www.oregon.gov/olcc/Docs/bottle_bill/Bottle-Bill-Distributor-Requirements.pdf