Modernizing the Beverage Container Recycling Program
Department of Resources Recycling and Recovery (CalRecycle)
January 2017[1]

Summary

Combatting climate change requires strategies to reduce the amount of landfilled waste and increase recycling for multiple types of materials. Recycling reduces greenhouse gas emissions by lessening the need for natural resource extraction, saving energy in the manufacturing of new products, and minimizing landfill emissions.

Over the past 30 years, the Beverage Container Recycling Program (Program) has raised consumer awareness of the environmental impacts of littering and the benefits of recycling single-use beverage containers. The Program has successfully prevented hundreds of billions of single-use beverage containers from becoming litter and has promoted a robust recycling collection infrastructure. However, the Program is limited in its abilities to adapt to changes in consumer products and behavior, developments in recycling systems, and fluctuations in the global commodities market. These limitations have created challenges and missed opportunities to maximize the benefits of recycling beverage containers, especially climate change benefits. To maximize the environmental and economic benefits of recycling beverage containers, the Program requires comprehensive reform that aligns with the state's climate change goals, the state's 75 percent solid waste reduction, recycling, and composting goal (AB 341, Chapter 476, Statutes of 2011), and fiscal sustainability.

Background

The 1986 California Beverage Container Recycling and Litter Reduction Act (Act) includes the following findings and declarations:

- Ensure that every container type proves its own recyclability.
- Make redemption and recycling convenient to consumers.
- Create and maintain a marketplace where it is profitable to establish sufficient recycling centers and locations to provide consumers with convenient recycling opportunities through the establishment of minimum refund values and processing fees and, through the proper application of these elements, to enhance the profitability of recycling centers, recycling locations, and other beverage container recycling programs.

The Act notes the responsibility to provide convenient, efficient, and economical redemption opportunities rests jointly with manufacturers, distributors, grocers, retailers, recyclers, processors, and the Department of Resources Recycling and Recovery (CalRecycle).

Recycling beverage containers into new products creates environmental and economic benefits by conserving resources and preventing pollution. When a beverage container is successfully collected, processed, and remanufactured into a new beverage container in the state, for example, Californians reduce the need for extraction of new natural resources, save energy through remanufacturing, reduce greenhouse gas emissions, create California jobs, and prevent littering and pollution. These achievements align with the state's climate goals and the state's 75 percent solid waste reduction, recycling, and composting goal.

[1] Original document can be found at
http://web1a.esd.dof.ca.gov/Documents/bcp/1718/FY1718_ORG3970_BCP1268.pdf

In the early years of the Act, the Program brought focus to resource conservation by successfully educating consumers on the environmental impacts of littering and the benefits of collecting beverage containers for recycling. Although collection is a key first step, resource conservation is contingent upon the processing and remanufacturing of recyclable material into new products. The Program supports the development of beverage container collection systems as well as in-state processing capacity. However, changes in beverage container packaging, the collection infrastructure, and the global commodities market have created challenges for conserving and recovering recyclable material from beverage containers.

Beverage Packaging. Modern beverage container packaging is more diverse and complex. Today, the Program manages significantly more plastic and composite packaging than was initially anticipated, which creates challenges for handling and sorting beverage containers. In addition, not all beverages are in the Program by virtue of their packaging. For example, water sold in a carton is excluded from the Program, whereas water sold in a plastic bottle is included. At the same time, not all beverages in existing Program material types are covered. For example, wine and distilled spirits sold in glass are excluded from the Program, whereas beer and water sold in glass are included. These exclusions from the Program and the continuing evolution of packaging has, in many instances, outpaced the Program's ability to maximize the recycling of beverage container materials into new commodities.

Collection Systems. The current collection system includes curbside operations and recycling centers, which differ in terms of direct redemption opportunity and quality of recycled material. In conjunction with the Program, the 50 percent solid waste diversion mandate (AB 939, Chapter 1095, Statutes of 1989) led to the adoption of curbside collection in California. Curbside collection is efficient at capturing large amounts and types of recyclable materials, including beverage containers. However, mixing all recyclables together in curbside bins leads to loss of material and increased contamination, raising the cost of recycling. For example, curbside operations capture significant amounts of glass packaging, but these operations also experience substantial breakage of glass packaging, making recovery difficult and increasing the amount of glass landfilled. Furthermore, the broken glass contaminates and reduces the value of other recyclable materials. Some curbside operators have made the necessary investments and demonstrated the ability to address these challenges, but the infrastructure varies across the state. In contrast, recycling centers provide consumers direct redemption opportunities and generally produce cleaner recyclable materials. Despite the quality differences, the Program supports both curbside operations and recycling centers with nearly identical mechanisms.

Global Markets. Recyclable materials are commodities subject to fluctuations in the global commodities market. Recent declines in global demand and scrap values for recyclable commodities have impacted all levels of California's recycling infrastructure, including the robust network of recycling centers. In 2016, the state experienced a net loss of over 350 recycling centers. The Program plays an important role in supporting the recycling center infrastructure when the cost of recycling is more than the scrap value of the material. However, the Program lacks the ability to rapidly adjust processing payments that support the recycling infrastructure and mechanisms to bolster in-state markets for recycled materials in times of low commodity scrap values and decreased global demand.

The Administration is committed to collaborating with stakeholders on a comprehensive reform that aligns with the state's climate change goals and the state's 75 percent solid waste reduction, recycling, and composting goal, and is fiscally sustainable. To that end, CalRecycle proposes the following policy framework outlining key components of reform.

Modernization Proposal

Principles

To maximize the environmental and economic benefits of recycling beverage containers, the program requires comprehensive reform that aligns with the state's climate change goals, the state's 75 percent solid waste reduction, recycling, and composting goal, and is fiscally sustainable based on the following principles:

- Improving Recycling and Remanufacturing
- Sharing Responsibility
- Enhancing Adaptability and Sustainability

Improving Recycling and Remanufacturing

The Program has been successful in its initial goal of reducing litter by providing recycling collection opportunities for consumers. However, collection does not ensure that a product is recycled into a new commodity. Future investments should be dedicated to creating clean, recyclable streams of material to facilitate recycling and remanufacturing. To facilitate recycling and remanufacturing, CalRecycle will focus reform efforts on maintaining redemption opportunities for consumers and increasing the stream of clean recyclable materials.

Recycling Center Infrastructure. Recycling centers provide consumers the opportunity to directly redeem their beverage containers and produce clean material streams for recycling. CalRecycle proposes to strengthen recycling center infrastructure by reorganizing payments to support lower volume and rural recycling centers, maintaining grocer responsibility, and increasing local responsibility to support opportunities for consumers to redeem their containers.

A. A substantial portion of the recycling centers that have closed over the last year handled low volumes of materials. In addition, these centers were disproportionately located in rural regions with limited access to recycling collection. Based on its cost surveys, CalRecycle has identified that lower volume sites have higher costs per container than higher volume sites; this difference is not reflected in the current processing payment or handling fee. **CalRecycle proposes to restructure the processing payments and handling fees to support lower volume and rural sites through a tiered structure that combines these payments.**

B. Grocery and retail locations are the primary distributors of beverage containers to consumers in California. Currently, grocers and retailers have a responsibility under the Program to provide redemption opportunities to consumers. However, the Program currently provides limited options for compliance: (1) establish a recycling center in the

grocer/retailer parking lot, (2) allow for in-store redemption, or (3) pay a $100 per day in-lieu fee. In the past three decades, consumer behavior for redemption has changed and there has been a recent contraction in the number of recycling centers due to fluctuations in the global commodities market. Recycling center closures have left grocers and retailers with the responsibility to provide in-store redemption or pay the in-lieu fee. CalRecycle continues to support redemption opportunities near the point of sale, but recognizes there may be other mechanisms for redemption and the responsibility to establish these opportunities must be shared. **CalRecycle proposes to continue a form of grocer and retailer responsibility, and seeks the ability to approve innovative, local compliance options that enhance consumer redemption opportunities.**

B. As mentioned above, the Program currently has a limited set of options for providing consumer redemption opportunities and CalRecycle supports the adoption of new mechanisms, such as mobile recycling, that increase direct redemption. While grocers and retailers have a responsibility to provide redemption opportunities, the Program does not fully account for the role of local jurisdictions in local land use decisions that allow for recycling centers to operate. Currently, local governments receive Program payments even if local land use decisions do not support recycling center operations or other mechanisms that provide direct redemption opportunities for their constituents. At the same time, local governments are best equipped to implement effective redemption opportunities that suit their communities. **CalRecycle proposes to restructure the current city and county payments into a competitive grant program for local governments and implement new opportunities for redemption. In addition, CalRecycle proposes to allocate Program payments based on the extent to which a local jurisdiction has supported sufficient direct redemption opportunities for consumers.**

Curbside Operations. Consumers may choose to forego redemption of their beverage containers and, instead, use curbside services. When consumers use curbside services, curbside operators may claim payments for that CRV material. While other states with beverage container deposit systems do not allow for curbside operations to receive redemption payments, CalRecycle recognizes that curbside operators support the accessible collection of beverage containers in the Program. However, as discussed earlier, system improvements are needed to meet California's environmental and economic goals. In addition, current methodologies used to calculate the amount of CRV handled by curbside operators must be reevaluated so that Program payment methodologies accurately capture the true amount of CRV material handled. CalRecycle also recognizes that theft of curbside materials is a problem faced by curbside operators and that collaboration is needed to develop solutions. Lastly, CalRecycle seeks to support and provide incentives encouraging clean recycled material streams collected through curbside collection.

A. Curbside operators currently receive CRV and processing payments for collected beverage containers. **CalRecycle proposes to modify these program components by providing a new payment based on recycled feedstock quality and system efficiency.** This program modification would be implemented gradually in order to allow

curbside operators sufficient time to adjust operations to adapt to the new payment system.

B. The current curbside supplemental payment is $15 million and is paid based on the number of processed beverage containers. In order to produce high quality recycled feedstock and increase system efficiency from curbside operations, **CalRecycle proposes replacing the curbside program with a competitive grant program supporting collection modernization and processing infrastructure.**

Beverages and Beverage Containers. Beverage containers included in deposit systems are collected and recycled at high rates. However, not all beverages sold in California are covered by the Program. Although the Program was expanded in 2000 to include water, among other beverages, the Act artificially limits the types of beverage containers that are included. This creates confusion for the consumer, since the same beverage may or may not be in the Program based on its packaging material, and creates a disparity between related beverages types. In order to establish equity within the Program, **CalRecycle proposes to add additional beverages packaged in existing Program materials (e.g., plastic, glass, and aluminum), such as wine, distilled spirits, and large juices, beginning on July 1, 2018.** This proposal supports the state's waste diversion and climate change goals, eliminates existing inequities in the marketplace, and facilitates the collection of these containers at recycling centers producing cleaner material streams.

CalRecycle is also cognizant of the evolving market for beverage container materials. As a result, **the Department seeks authority to develop and implement regulations that would add other beverage container material types.** This would include aseptics, cartons, and flexible packaging. The proposal is designed to give CalRecycle the authority to adopt these changes in a way that is efficient, allows for the necessary development of the recycling infrastructure, and minimizes potential fraud risks.

Sharing Responsibility

Historically, the consumer has shouldered most of the financial burden to sustain the program. Program responsibilities and financing should be rebalanced among all program participants.

Under the current Program, the financial responsibility for recycling beverage containers rests primarily on the consumer. Consumers pay $0.05 or $0.10 on each beverage container purchased, and in order to get their deposit back, consumers must travel to a recycling center to return their container. In contrast, beverage manufacturers pay $0.00024 for each PET container they sell in California.

A. When the Program was first implemented, beverage manufacturers had the financial responsibility to cover the costs of recycling beverage containers. The shift to unredeemed CRV covering the beverage manufacturers' share of the processing fee has limited the Program's opportunities to support critical recycling infrastructure. **CalRecycle proposes to restore the requirement that beverage manufacturers cover the cost of recycling**.

B. Currently, beverage manufacturers do not play a strong enough role in supporting markets for post-consumer recyclable material especially when the cost of virgin beverage container material is less than recycled material. **CalRecycle proposes to require beverage manufacturers to support recycled material markets through one or more of the following: minimum content requirements, material buy-back requirements, refillable beverage container options, and designs for recyclability.**

C. The current resin identification codes (RIC) do not adequately distinguish between plastic polymers used for beverage containers. For example, plastic beverage containers made of polyethylene terephthalate (PET) are labeled as RIC 1, but may contain polymers or other components that render the material incompatible with the PET recycling infrastructure. **CalRecycle proposes to reform the RIC system to require that beverage containers labels reflect their recyclability.**

Enhancing Adaptability and Sustainability

Increases in the recycling rate have resulted in a structural deficit in the Beverage Container Recycling Fund. In addition, the program does not respond quickly to fluctuations in the global commodities market. The program must be both nimble and fiscally sustainable to advance the state's economic and environmental goals. A comprehensively reformed program must be fiscally stable and include a mechanism preventing future structural deficits.

Over the last 30 years, the Act has been amended repeatedly and reflects a patchwork of various changes. **CalRecycle proposes to remove antiquated Program provisions and create program efficiencies.** These changes include, but are not limited to, clarifying definitions and reporting requirements, optimizing Program payments, and implementing other Program improvements.

The Program must also become nimbler to respond to fluctuations in the global commodities market. For example, the current statutorily prescribed formula for calculating processing payments includes variables that lag behind real-time changes in both recycling costs and scrap value calculations. This lag, combined with other factors, causes lower processing payments during times that recycling operators are most negatively impacted by global markets. As a part of comprehensive reform, existing mechanism must be modified to reduce the lag, thereby facilitating timely adaptation to market changes.

CalRecycle is proposing significant reforms to the Program, which must be implemented incrementally over time. In the course of reforming the Program, CalRecycle seeks to address the current $50 million structural deficit and limit adverse impacts such as the need to proportionally reduce payments.

Appendix

Policy Principles

To maximize the environmental and economic benefits of recycling beverage containers, the program requires comprehensive reform that aligns with the state's climate change goals, the state's 75 percent solid waste reduction, recycling, and composting goal, and fiscal sustainability based on the following principles:

- **Improving Recycling and Remanufacturing**—The program has been successful in its initial goal of reducing litter by providing recycling collection opportunities for consumers. However, collection does not ensure that a product is recycled into a new commodity. Future investments should be focused on creating clean, recyclable streams of material, which will improve the recycling and remanufacturing segments of the current system.
- **Sharing Responsibility**—Historically, the consumer has shouldered most of the financial burden to sustain the program. Program responsibilities and financing should be rebalanced among all program participants.
- **Enhancing Adaptability and Sustainability**—Increases in the recycling rate have resulted in a structural deficit in the Beverage Container Recycling Fund. In addition, the program does not respond quickly to fluctuations in the global commodities market. The program must be both nimble and fiscally sustainable.

Modernization Proposal Outline

Improving Recycling and Remanufacturing - Redemption Opportunities and Clean Material Streams

a) Recycling Center Infrastructure
    i) Restructure processing payments and handling fees to support lower volume and rural sites through a tiered structure that combines these payments.
    ii) Maintain grocer and retailer obligation and give the Department the authority to expand compliance options.
    iii) Increase local responsibility to support solutions for consumers to redeem.
        (1) Restructure city/county payments and competitive grants to provide competitive grant funding.
        (2) Option to link Program payments to local opportunities to redeem.
b) Curbside Operations
    i) Create a single curbside payment based on recycled feedstock quality and system efficiency.
    ii) Convert curbside supplemental payment into a competitive grant program to support modernization of collection and material recovery infrastructure.
c) Beverages and Beverage Containers
        i) Include beverages in current materials, and add wine and distilled spirits, on July 1, 2018.
        ii) Authority to add additional container material types, including but not limited to aseptics, cartons, and flexible packaging

Sharing Responsibility

a) Require beverage manufacturers to cover the full cost of recycling.
b) Require beverage manufacturers, or an organization representing manufacturers, to create markets for recycled products through one or more of the following:
    i) Minimum content requirements
    ii) Material buy-back
    iii) Refillable containers
    iv) Design for recyclability
c) Reform Resin Identification Codes to enhance recyclability.

Enhancing Adaptability and Sustainability

a) Cleanup antiquated program provisions.
b) Evaluate and improve program efficiency.
c) Provide authority to respond to changes in the global commodities market.
d) Limit adverse impacts such as the need to proportionally reduce payments.