Redemption centers are the backbone of California’s highly successful beverage container deposit-return program. Of the 18 billion bottles and cans recycled annually in California, nearly 90 percent have been handled by the approximately 2,100 certified redemption centers in state (as of January, 2016). Both stand-alone redemption centers and those located at supermarkets take consumers’ empties, refund their deposits (5-10¢ per container), and prepare the used bottles and cans for recycling. This economic activity is a boon to the state’s economy, directly employing at least 3,000 people, generating $8 - $9 million annually in state tax revenues, and channeling a million tons of premium-quality scrap material away from landfills and into the products of a wide array of U.S. manufacturers. Now, however, this recycling backbone is in danger of breaking under the financial stress of inadequate state compensation formulas. From April 2015 to April 2016, 421 redemption centers closed, and more closures are likely if current trends continue.

Because scrap values alone are insufficient to cover redemption centers’ operating costs and a reasonable profit, CalRecycle pays a per-ton “processing payment” in compensation. This payment is calculated by subtracting a material’s scrap value from the cost of recycling it. Recent economic conditions have exposed serious cracks in this formula.

Crack #1. Processing payments are based on outdated scrap prices
CalRecycle’s processing payments aren’t based on real-time scrap values, but rather on 12-month averages from the previous year, with a three-month lag time. For example, between July and September 2015, actual market prices for a ton of PET plastic averaged $245.03, or roughly half what it cost the redemption center to collect and process it ($491.50). In theory, the difference ($246.47) should have been covered by the CalRecycle processing payment, but because 2014 PET prices were much higher than those of 2015, redemption centers received just $143.33 per ton: a shortfall of $103.14 for every ton recycled. Figure 1 shows the gap between actual and calculated scrap values.¹

Crack #2. Scrap values are suffering crippling declines
Due to production overcapacity and falling oil prices, actual scrap values have trended downward for four years (dashed line in Figure 1). Falling scrap prices compound the structural problems inherent in the processing payment compensation formula.

Crack #3. Prolonged shortfalls put redemption centers at risk
In a fairly consistent market, shortfalls in one period are offset by windfalls at other times. However, when the market is trending downward for a long period, accumulated windfalls are quickly exhausted. As Figure 2 shows, redemption centers have suffered a cumulative shortfall of nearly $43 million for PET and glass over the last four years,² with $21 million in shortfalls occurring in 2015 alone.
Crack #4. Redemption centers’ financial security is overly dependent on aluminum
Redemption centers have traditionally counted on aluminum revenues to subsidize lower-value plastic and glass, but with net revenues dropping nearly 75 percent over the last five years, this is no longer the case. And since aluminum accounts for less than 15 percent of overall tonnage at redemption centers, aluminum’s profits can only go so far toward covering expenses.

Crack #5: Small redemption centers are vulnerable
Average operating costs at small redemption centers can be twice as high, on a per-ton basis, as costs at the largest centers. These costs, combined with processing payment shortfalls and the unprecedented decline in scrap values, means that these smaller centers are operating at a loss, and many have been forced to close altogether. In all, 19 percent of certified redemption centers in California have closed in the last 12 months.

Crack #6: Redemption center closings undermine consumers’ right to recover their deposits
With a few exceptions, beverage dealers must provide access to redemption services within a half-mile radius of a supermarket—the so-called “convenience zone.” Yet the recent spate of redemption center closings has left more than 500 convenience zones unserved, making it increasingly difficult for consumers to recover the deposits to which they are entitled.

CalRecycle’s Recent adjustment to the processing payments
On March 8, 2016, CalRecycle increased processing payments for PET, HDPE and glass, effective April 1, 2016. While the $32 increase in the PET processing payment is a step in the right direction, it still leaves recycling centers with a $41.83 per ton loss on every ton of PET that they handle.

CRI’s Recommendations

1. Re-evaluate the processing payment calculation formula
Though it would require a statutory change, CRI recommends that the processing payment calculation method be reevaluated to protect the solvency of the recycling centers upon which the California beverage container recycling infrastructure depends. It could do so by tying processing payments more closely to real-time prices rather than using the 12-month averages (with a three-month lag time).

2. Evaluate the program going forward and provide structural reform as needed
Due to the disparities in average costs for smaller vs. larger redemption centers, a tiered payment mechanism would distribute the program’s resources more equitably, and would help smaller centers remain open.

If the current downward pricing trend continues without structural adjustments to CalRecycle’s processing payment formula, recycling centers’ cumulative net losses will inevitably force more of them out of business. Additional closures will mean not only additional job losses and lost recycling opportunities, but a real loss to the people of California, to the sustainable economy and to the environment.

ENDNOTES
1 Figure 1: CalRecycle scrap values are those published annually (with periodic adjustments), and are used in calculating processing payments. They are derived from the average scrap value from the previous one-year period, with a 3-month lag time. Actual scrap values are those of the actual months in question. The gap between the two lines represents the shortfall (or windfall, when they cross). To adequately compensate the recycling centers, the lines should be identical. Source of data: CalRecycle, 2012-2015.
2 Figure 2: Shortfalls are additive from Jul. ‘12 - Dec. ‘15. Monthly per ton shortfalls were multiplied by monthly tons recycled by recycling centers. Per ton shortfalls are the difference between fixed-period scrap values CalRecycle uses to calculate processing payments, and actual scrap values during the months the recycling took place. Monthly tonnages were derived by dividing CalRecycle’s reported biannual units recycled by six, and by multiplying by containers per pound and by recycling centers’ “participant share” (reported annually). Source: CalRecycle, 2012-2015.

Container Recycling Institute, March 2016