

Container deposit schemes work: so why is industry still opposed?

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Australians are serial wastrels. For every 1,000 square metres (or about four tennis courts), Australians litter about 49 pieces of rubbish. The biggest culprits are drink containers, making up five of the top nine recorded pieces of litter by volume.

One way to reduce this litter is to refund people when they deposit drink containers for recycling through container deposit recycling (CDR) schemes. South Australia and the Northern Territory have CDR schemes. In May this year, New South Wales Premier Mike Baird announced a CDR scheme for his state, to begin in July 2017.

Under the scheme most drink containers over 150ml will be eligible for a 10c refund through state-wide depots and reverse vending machines. This has re-ignited an ongoing debate, largely driven by the drinks industry, which – as previously debated on *The Conversation* - vociferously opposes these schemes.

Refunds work

As part of the NSW process, we at BehaviourWorks Australia at Monash University recently reviewed research and data from 47 examples of CDR schemes or trials around the world. This work was commissioned by, but independent of, the NSW Environment Protection Authority.

The 47 CDR schemes recovered an average of 76% of drink containers.

In the United States, beverage container recovery rates for aluminium, plastic and glass in the 11 CDR states are 84%, 48% and 65% respectively, compared with 39%, 20% and 25% in non-CDR states. The figures are similar in South Australia, one of the longest-running CDR schemes in the world: 84%, 74% and 85% for cans, plastic and glass compared with national averages of 63%, 36% and 36%.

Some CDR schemes donate the refund to charity, but people are more likely to return a container for a refund. And the greater the refund, the greater the return rates. Most schemes refund 5-10c; the 11 schemes in Canadian provinces include those with refund rates as high as 40c for glass containers over 1 litre in Saskatchewan.

CDR schemes reduce litter overall. Data from seven US states show 69-83% reductions in container waste and 30-47% reductions in overall waste.

Finally, government CDR schemes are sustainable. The 40 government schemes worldwide have operated for an average of 24.8 years and all except two are still going.

Industry opposition

CDR schemes work, so why do they face continued opposition from the drinks industry?

The first major argument against is cost – to the public, to producers, to jobs and to government via, for example, a reduction in alcohol tax revenues due to reduced sales.

We found little published evidence to support these claims. The few studies identified were either funded by the beverage industry or theoretical arguments without any empirical data. Manufacturers and

consumers will share the costs of the NSW CDR scheme, with consumers paying an estimated A\$30 into the scheme annually should they not redeem any deposits.

The most robust cost data, the Packaging Impacts Decision Regulation Impact Statement, was prepared for the Australian government in 2014. This found that CDR schemes were more expensive than other packaging recovery and recycling options, but reduced litter the most.

The question of whether the cost is worth the return is an important aspect of the debate, and one that should be considered not just by the beverage industry but by all stakeholders, including the wider community.

Can industry do the job?

The second argument against government CDR schemes is that industry can recycle containers itself. Examples to support this argument are sparse and unconvincing.

In 2010, Coca-Cola launched a reverse vending machine scheme in Dallas Fort-Worth, Texas, with a target of 3 million beverage containers recycled per month. The scheme folded in October 2014, having achieved roughly a quarter of this target.

PepsiCo's ongoing Dream Machine initiative of college-based reverse vending machines commenced in April 2010 with the goal of increasing the US beverage container recycling rate from 34% to 50% by 2018. It reported collection of over 93 million containers by 2012. Although an impressive-sounding yield, achieving the target of a 50% recycling rate would require multiplying this effort 400-fold.

These examples illustrate that industry-based CDR schemes appear

either unsustainable or lack realistic targets.

Replacing recycling?

Thirdly, it is argued that CDR schemes will cannibalise existing kerbside recycling programs. The evidence suggests that the effect, if any, is the reverse – marginal increases in kerbside recycling have been noted following introduction of CDR legislation.

This may be linked to the "spillover effect" where people are more likely to do one thing if they are already doing something similar. The data from CDR schemes suggest that people may be more inclined to use kerbside recycling simply by buying a drink with a container deposit, not just getting the refund. As an example, South Australia's overall recycling rate in 2008–2009 was 67%, against a national average of 51%.

Behavioural research also tells us that convenience is a major factor in CDR schemes, particularly how close collections are to people's homes. Vending machines are perceived as convenient but data on whether they work are mixed.

There is also robust evidence that clean environments are likely to remain cleaner (than otherwise would be the case) and that littered environments are likely to attract more litter.

This underlines the findings from research that CDR schemes not only increase beverage container recycling, but reduce litter. Ongoing CDR debate should be informed by research evidence and involve all stakeholders in this multifaceted issue.

Provided by Monash University

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