

Response to:

Critical Assessment of *Independent Review of Container Deposit Legislation in New South Wales*

Prepared by:

Access Economics Pty Ltd
(Unidentified Author)

This response document prepared by:

Stuart White
Institute for Sustainable Futures
University of Technology, Sydney

<mailto:Stuart.White@uts.edu.au>



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1 INTRODUCTION

In March 2002 a report of the Independent Review on Container Deposit Legislation in NSW ('the Independent Review') was released. This review was commissioned by the NSW Minister for the Environment and conducted by a research team at the Institute for Sustainable Futures at the University of Technology, Sydney. This Review concluded that the introduction of Container Deposit Legislation (CDL) would provide net economic, environmental and social benefits. These results were based on modeling of the projected increase in collection and recycling rates for used container materials should a deposit and refund system (DRS) be introduced in various configurations, mostly from an increase in the recovery of containers consumed away from home. The report of the Independent Review can be viewed and downloaded at http://www.isf.uts.edu.au/CDL_Report/.

The increase in collection rates that are observed to occur when a DRS is introduced is due to the fact that used containers have an increased value, which makes their recovery more likely. The major benefits associated with such an increase in recycling rates are due to the environmental benefits from decreased pollution and resource use of producing virgin container materials.

In March 2002, the beverage industry, represented by the Beverage Industry Environment Council, and on behalf of the packaging industry sector, commissioned Access Economics Pty Ltd to undertake a review of the assumptions and methodology of the Independent Review. This assessment can be found at <http://www.accesseconomics.com.au/>.

This document is a response to that assessment. It provides a response to the major issues raised and a number of the specific issues.

Many of the issues raised are either statements of opinion, valid points that are not relevant, unjustified assertions or personal smears unworthy of a professional organisation. These have not been addressed.

1 MAJOR ISSUES

The assessment document has little coherent structure, therefore the major arguments have been summarized in this section, with excerpts from the text quoted, and a response provided.

1.1 Alternatives to a Deposit and Refund System

There is a set of claims in the Access Economics report relating to alternatives to CDL that may achieve the same outcome. Some of these are shown below.

‘Cost-benefit analysis could and should be used to answer the question: ‘How best can governments increase recycling rates?’ Answering this question requires a cost-benefit ranking of all feasible alternatives. Only if some variant of CDL tops this cost-benefit ranking can the answer to this question be: ‘CDL’. In restricting the scope of the cost-benefit analysis in the report, White makes a number of limiting assumptions (e.g., ignoring the additional costs of consumers’ time and the potentially large transition costs likely to be faced by local councils in the quantitative results) that clearly bias the cost-benefit results in favour of CDL’s absolute net cost-benefit.’ (Access Economics pii)

‘CDL is one – but only one – possible initiative that could be used to promote this policy objective by governments. Historically, CDL is used for this purpose in some parts of the world, including South Australia. Other measures, however, are more common.’ (Access Economics p1).

‘...possibility of reinforcing and extending kerbside recycling as a more compatible alternative to the status quo than CDL’ (Access Economics p6).

These and several other statements suggest that the Independent Review did not consider alternatives to a deposit and refund system (DRS) as a means of increasing container recovery and recycling rates. This is incorrect. Section 5 considered a range of alternatives. The Access Economics report, consistent with views often expressed by the beverage industry, suggest that reinforced and extended kerbside recycling provide a superior alternative to a DRS. This is contrary to international and South Australian empirical experience and the results¹ of the recently completed multi-stakeholder study in the US (R.W. Beck et al. 2002).

The issue here is that the major impact of a deposit and refund system is in recovering used containers that are consumed away from home, which as indicated in a beverage industry sponsored report, represent approximately 50% of beer and soft drink sales in

¹ This report, of a multi stakeholder independent review of beverage container recycling in the US, is available at <http://www.globalgreen.org/BEAR/index.htm>. The conclusions include the following ‘Deposit systems result in the highest level of recovery’ and ‘Curbside programs result in the second highest level of recovery’.

NSW (BIEC 2001:pp2,57). Therefore, increasing kerbside recycling will not, and indeed cannot, reach the levels estimated to be achievable in the Independent Review and unchallenged with contrary evidence. The beverage industry reports on the potential for increasing non-residential (away from home) recovery rates (see eg BIEC 2001) discuss only the goal of meeting the modest Industry Waste Reduction Program target levels, rather than the elevated levels experienced where a DRS is in place. There is no costed program, and no cost benefit analysis in this and other beverage industry-sponsored reports which discuss the potential for increasing away from home recycling.

This highlights a major problem with the current used container material (UCM) recovery systems, which are based on kerbside recycling. No matter how they are improved it will be difficult to increase overall recovery rates, due to the away from home sector, and the increased use of commingled collection of containers and the associated contamination levels. The Independent Review noted the declining glass recovery rate as evidence of this, a point unchallenged by the beverage industry.

1.1 Cost of Consumer's Time

The Access Economics report highlights the fact that consumers' time sorting and stacking containers prior to return is not included in the total cost benefit analysis (CBA), and is referred to only in the distributional analysis as a cost to householders, as it currently is for householders who stack and sort containers for kerbside recycling. The travel time and travel costs have been included in the Independent Review analysis.

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The submission by the beverage industry² to the Independent Review did not include consumers' time (C4ES 2000), and did not even include the cost and time of householders traveling to depots. The industry-supported *Independent Assessment of Kerbside Recycling in Australia* (Nolan-ITU/ SKM 2001) did not include consumers' time in sorting and stacking recyclable materials. The multi-stakeholder recovery project report (R.W. Beck et al. 2002) did not include consumers' time.

The report by the Tellus Institute (Ackerman et al. 1995) considered the issue, weighed the advantages and disadvantages of attempts by various economists to estimate the inconvenience cost and concluded:

'...we do not consider it appropriate to calculate household costs beyond the value of unclaimed deposits" (Ackerman et al. 1995:p24)

² This submission can be downloaded at http://www.isf.uts.edu.au/CDL_Report/

However, despite the fact that no other major analysis has included this as a cost in the CBA, it is a reasonable question to raise. One way to consider this cost is in terms of the willingness of citizens to bear the cost of inconvenience to achieve recycling goals. Two useful sets of data can be drawn on here, neither of which are from the Independent Review. A survey was conducted in 1997 on behalf of the Beverage Industry Environment Council (BIEC 1997). It showed 77% support of CDL amongst 1,007 respondents in capital cities in the eastern states of Australia. A telephone survey of residents of South Australia was conducted in 1993 on behalf of the Environment Protection Agency of South Australia (EPA SA 1993). In this state, where citizens have had experience of the inconvenience costs of CDL since 1978, 95% of citizens supported CDL.

1.2 Impact on Kerbside Recycling

Introducing CDL reduces kerbside yield and the effect of this (redeemed deposits aside) in the White report is improved productivity, rather than the opposite. It is not clear why the conclusions of the White report should conflict with those in the Nolan-ITU/SKM study. If they do, is increased employment the reason? Importantly, despite the fact that the White report claims to use the same model it does not resolve the inconsistency in these results.(Access Economics p17)

This and various other comments in the assessment that demonstrate a serious misunderstanding of the results of the *Independent Economic Assessment of Kerbside Recycling in Australia* (Nolan ITU/SKM 2001) and confuses the economic value of environmental benefits with the financial costs of kerbside collection – a common mistake, but the entire point of that study. Kerbside recycling makes a financial loss in any case, and reducing the collection of high volume low mass containers in fact improves its financial performance, as demonstrated by both Nolan ITU/ SKM (2001) and the Independent Review.

The Nolan ITU/ SKM (2001) report shows that increased yield certainly increases the benefits of kerbside recycling, *because of the environmental benefits associated with the increase in materials being recycled*. If the materials are collected by other means, in fact if more of them are collected due to the use of an economic instrument such as a deposit and refund system, then the environmental benefits are similarly increased. It is an outcome of the recycling of the materials, not the kerbside collection. This is demonstrated in the Nolan ITU/SKM (2001) report in s6.1.4 where a hypothetical change in the mix, to collect paper and glass only at kerbside, is shown to reduce the cost (ie reduce the financial loss) of kerbside collection, but the environmental benefits are reduced. As shown in this section this is only because the materials are not being recycled, which of course is contrary to what would happen if they were being diverted because a deposit and refund system were in place.

This assumption will not be valid if the introduction of CDL means existing kerbside

collections are no longer financially viable.

This comment displays a serious misunderstanding of the recycling industry. Kerbside collections are not currently financially viable. Reducing the recyclable material will indeed decrease revenue to councils or their contractors, but (regrettably) not by as much as is claimed in the beverage industry submission to the Independent Review (C4ES 2001:px), and an amount easily outweighed by the reduction in sorting and collection costs from reduced container volumes, and also from the residual value of the deposit bearing containers. These conclusions are consistent with those of Ackerman (1995:p3).

1.3 Social Research Results

The social research component of the Independent Review incorporated leading edge techniques for participatory decision making, combining a televote and a citizen's forum³. The citizen's forum, based on models used widely in Europe and the US, comprised a group of randomly selected citizens who heard evidence on the issue from experts included Prof. Frank Ackerman (see eg Ackerman 1997) and NSW and South Australian EPA staff, and deliberated on the issues over three days. At the last minute, industry representatives withdrew from presenting evidence at the Forum, which meant that local government and environment group representatives had to be excluded as well. However, the process was still valid and useful, as determined by an independent evaluation (see Volume III Appendix L).

The telephone survey results in support of CDL were based on limited information (some of which was not included⁴ in the White report and therefore could not be assessed by us) but nevertheless showed declining support as information about the costs of CDL was introduced. Even so, the results were based on offering interviewees a CDL/no CDL choice only. Offering a wider choice of options – such as extensions to kerbside recycling, including in public places – may well have changed results even more dramatically.

The relevant questions in the telephone survey were approved by industry representatives on a stakeholder reference group. As indicated above, industry commissioned survey shows higher support for CDL (77%). Naturally, different answers can be achieved by asking about support for a wide range of options.

The outcomes of the so-called 'Citizens' Forum' may well have been influenced by biased and/or limited information about feasible alternatives. In any case its recommendations, in large measure, are either impractical and/or uncosted, despite the fact that at least some of them will entail additional costs over and above those likely to be generated by CDL itself. (Access Economics pii)

³ See http://www.isf.uts.edu.au/CDL_Review/participation

⁴ The 8 page 'Background Information on Container Deposit Legislation' was accidentally left out of Appendix F in the final version. In any case, industry representatives have copies of this information from the minutes of the Stakeholder Reference Group. A copy of this document will be incorporated in Volume 3 and can be downloaded at http://www.isf.uts.edu.au/CDL_Report/

As indicated above, the Forum process was independently evaluated. The recommendations are useful in determining the concerns and preferences of the community. It is worth noting that the literature on these processes shows that once engaged in these methods which exemplify deliberative democracy, citizens will invariably put aside self-interest and consider issues from the perspective of others in the community. This was evidenced by the sophisticated dialogue and outcomes of the process, in which the participants expressed concerns about both the less fortunate in the community, as well as concerns for the impact on industry groups. It is regrettable that industry representatives saw fit to withdraw and therefore not expose themselves to the views of their ‘customers’.

1.4 Benefits of a Deposit and Refund System

Many previous reviews of CDL have failed to consider the full range of costs and benefits. The following comment, a familiar one from industry material, illustrates the fact that Access Economics, while not actually having to analyse the costs and benefits and therefore be held accountable for their methodology, has misunderstood the major source of the benefits that accrue from the increased collection and recycling of used container materials. As indicated in the Independent Review, and also in the *Independent Assessment of Kerbside Recycling in Australia* (Nolan-ITU/SKM 2001), the issue is not what percentage of the waste stream container materials represent, but rather the magnitude of the benefits associated with reduced environmental impacts of virgin material production. The implementation of CDL would reduce waste to landfill in NSW by approximately 150,000 tonnes per year (over 1.5 billion containers per year), but more importantly, it would approximately double the collection and recycling of used container material with estimated benefits worth between \$100m and \$150m per year.

Although Access Economics has not set out to assess the merits of CDL, we note that beverage containers make up around 4% of the domestic waste stream. In turn, the domestic waste stream makes up around one-third of the total waste stream in Australia. This means that, in total, beverage containers constitute around 1.5% of the total waste stream in Australia. Container Deposit Legislation, at best, would address about 1.5% of the total waste stream.

As to our own views on the merits of CDL in NSW, we remain of an open mind. However, we note the views of the Industry Commission Inquiry into Recycling:

‘Deposit schemes work best when the costs of improper disposal are high and cheaper alternatives are ineffective. The Commission has not found a convincing case for compulsory deposit schemes in the Australian context for any products reviewed in this report.’

[Recycling in Australia Volume I, February, 1991, page 11.]

As to the first sentence, we couldn’t have put it better ourselves. (Access Economics pii)

The question of an open mind is left to the reader to judge. The views expressed in the Industry Commission report, similar to those expressed in the paragraph above,

did not reflect the full analysis that was able to be undertaken in the Independent Review or the *Independent Assessment of Kerbside Recycling in Australia* (Nolan-ITU/ SKM 2001). In other words, based on the results of these two studies, the latter of which was supported by industry, the cost of improper disposal is high, approximately 9¢ per container on average. Cheaper alternatives, such as drop off centres, and public place recycling bins are ineffective, relative to a deposit and refund system.

2 SELECTED SPECIFIC ISSUES

The following comments relate to a selection of specific issues, which illustrate the level of the Access Economics assessment.

The recycling rates for containers used as the basis for assessing the costs and benefits of the various CDL scenarios are backed by a superficial discussion of international experience of deposit and return systems and are little more than guesswork. (Access Economics pii)

Superficial is a relative term. The review of international deposit and refund systems in the Independent Review is the most comprehensive that we have seen in the literature, and significantly more detailed than that in the submission to the Review provided by the beverage industry (C4ES 2001). There is a significant discussion of the international deposit and refund systems and recovery rates in Section 2 and Appendix A of Volume 2. The recovery rates are indeed estimates based on this evidence and actual data, including from South Australia in the case of Option 4a. No alternative recovery rate data or suggestions have been provided by Access Economics. The overall results of the CBA are not significantly affected by even a substantial reduction in recovery rates, as indicated by the various scenarios modeled, which have recovery rates varying from moderate (with recovery rates based on the South Australian system) to high (estimates for a 20¢ deposit with a convenient recovery system).

The primary research undertaken by White himself concentrates on a telephone survey of consumers and a 'Citizens' Forum'. (Access Economics pii)

The intent of this comment is unclear. A major component of the Independent Review consisted of modeling the impacts of a deposit and refund system on kerbside recycling, as well as a life cycle assessment of the environmental impacts of the increased collection and recycling of used container materials, amongst other analytical methods. The social research was only one component of the Review.

However, it should be noted that limited application of CDL to some containers could well induce both consumption and substitution effects to products/containers not subject to CDL because of production and consumption cost differences. (Access Economics p10)

It was not proposed that CDL be introduced to a limited range of containers.

Sub-section 1.3.5 notes that an annualised cost approach, rather than a net present value approach, has been used to assess the financial costs and benefits over a twenty-year time frame. The rationale for this approach was that ‘ the use of net present value was not believed to be appropriate given the level of uncertainty surrounding the actual timing and pace of implementation and uptake of any potential CDL system.’ (Volume II, page 10). This reasoning is unfathomable.

The beverage industry submission to the Independent Review (C4ES 2001) also used an annualised cost approach (C4ES 2001:px), common practice and considered reasonable under the circumstances.

3 CONCLUSIONS

The Access Economics assessment does not reveal any reasons to alter the major conclusions of the Independent Review. These conclusions include:

- The recovery and recycling of used container materials to levels experienced in South Australia, and other locations which have a deposit and refund system, have not been achieved by a kerbside-only system anywhere in the world, and are unlikely to be so achieved. No credible alternative to a DRS to achieve these elevated recovery levels has been put forward by industry representatives, or by the Access Economics assessment.
- The increased recovery rates estimated in the Independent Review, are based on best estimates of experience internationally and in South Australia. There are net benefits of a DRS across a range of collection and deposit system scenarios modeled, including those based on actual experience in South Australia.
- The major benefit associated with the increased recovery and recycling of used container materials is the environmental benefits associated with reduced production of virgin container materials – this represents approximately \$100m to \$150m per year for the more than 1.5 billion containers that would be recovered via a DRS – a result consistent with the *Independent Assessment of Kerbside Recycling in Australia* (Nolan-ITU/ SKM 2001).

I am also interested to note that the beverage industry submission to the Independent Review itself states that:

“(Under these assumptions), a traditional CDL system, with an optimum 20¢ deposit and assuming that depot recovery rates similar to South Australia’s could be achieved, would provide a net benefit of \$11.6 million compared to the kerbside base case” (C4ES 2001:pxi)

The results of the Independent Review have been borne out by recent events and the results of other independent studies undertaken internationally.

The recently released report of the multi-stakeholder recovery project (R.W. Beck et al. 2002) concluded that the deposit and refund system operating in California, which has certain operating efficiencies because it does not require sorting by brand, have lower unit costs than kerbside recycling.

In March, the German Government introduced a deposit and refund system, and in late April the State of Hawaii resolved to introduce CDL, the first US state to do so in 16 years.

4 REFERENCES

Access Economics Pty Ltd (2002) “Critical Assessment of Independent Review of Container Deposit Legislation in New South Wales”, report prepared for the Beverage Industry Environment Council on behalf of the Packaging Industry Sector, Canberra, April 30th 2002.

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Available from <http://www.globalgreen.org/BEAR/index.htm>.