



SUPPLEMENTARY SUBMISSION TO SENATE MARINE PLASTICS INQUIRY

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Further to our evidence to the Inquiry please find following information a comparison of options to tackle drink container litter that are currently being considered in New South Wales.

1. COMPARISON OF PROPOSED MODELS

BOOMERANG ALLIANCE	COKE/BEVERAGE INDUSTRY
<i>Container Deposits – a world’s best system that targets almost all container litter and achieves 80% recycling</i>	<i>Thirst for Good – strategies based on past failed programs that will only capture at best a small portion of new container litter and minimal recycling</i>
10cent refundable deposit – proven incentive to reduce littering	No financial incentive to change behaviour
<ul style="list-style-type: none"> Will virtually achieve NSW Premier’s total litter reduction target (40% < in volume) in a sustained manner by financial incentive to not litter and weekly litter collections across a wide area by hundreds of litter collectors motivated by the deposit redemption. Divert govt and council funds to more difficult litter issues 	<ul style="list-style-type: none"> 100 litter collectors along highways – will miss out on other litter sites and many roads litter will keep recurring on highways over the weeks/months between collections 2,000 more bins – over 53,000 existing bins in NSW have failed to stop enough littering in the past - more will only have small impact
Charities can benefit by raising over \$70M per year via collections, donation directed from reverse vending machine and depot management	<p>\$1-2Mpa for selected charities.</p> <p>Groups likely to obtain amount of household containers already placed in kerbside by members.</p>
Run by independent, non-profit organisation – avoids industry conflicts of interest and inefficiency	Industry has major control of the TfG program
1,500 new sustainable jobs – no impact on drink sales; + hundreds of deposit-refund litter collectors across the state	100 part-time highway litter collectors – significant occupational dangers. Litter will build up in between collections.
\$18.5M/pa net financial benefit to local councils – likely waste charge reductions	One litter collection cage for every council
Convenience for consumers via 500-800 reverse vending machine sites across the state	100 reverse vending machines with corporate advertising and non-financial prize for the returns – similar overseas programs have failed to collect sufficient containers and shut down. RVMs to be located where bins already exist, leading to substantial rerouting.
Cost effective clean up program – significantly cheaper per container than	Likely to be expensive for limited new litter collection

current programs. Significant improvement in recovered bottle and can quality as not contaminated in bins or kerbside collections.	
No government or industry subsidy – CD scheme is financially self-sustaining litter and recycling gains are long term	Dependent on industry subsidy and management – support likely to be reduced over time once threat of regulation diminishes
Education program – extensive advertising about CDS, financial incentive and how to use it and change behaviour	Community education about Thirst for Good – minimal impact on behavior as advertising loses traction

2. FURTHER ANALYSIS OF THIRST FOR GOOD

The Cost of Thirst for Good: As we understand it, the cost of each initiative (the indicative operational costs) would be:

- Operating costs of RVM's (22million containers p.a. @ a handling fee of 9¢ (based on much lower volumes of 25,000 containers/month and lower scrap value) =
\$2,700,000 p.a.
- Premises costs (rent, power cleaning) @ \$10,000 p.a. per site =
\$1,000,000 p.a.
- Value of RVM rewards @ say 5¢ =
\$1,100,000 p.a.
- Community Clean Ups @ 5¢ per container (\$300 per 6,000 containers) =
\$1,100,000 p.a.
- Litter Collectors =
\$7,100,000 p.a.
- Litter Bins (amortized over a 5-year bin life) =
\$3,820,000 p.a.
- Promotion (statewide) =
\$2,000,000 p.a.
- Administration (Manager and 5 staff + housing and on costs) = \$
800,000 p.a.

Operating Costs = \$22.42million p.a.

Notwithstanding this analysis, it is also apparent that Thirst for Good operates at a rough cost of 95¢ per container recovered (\$8,983.20 per tonne). This is around 4 times the current cost of litter abatement (\$2,900/tonne), but given that 45% of all the Thirst for Good is re-routing and that local government is already capturing any low hanging fruit, it is reasonably accurate.

It is clear that Thirst for Good is less cost efficient – coming at a cost some 20 times greater (per unit recovered) than the gross operating costs of a modern CDS.

Specific responses to the different aspects of the Thirst for Good proposed program include:

Reverse Vending. The Reverse Vending component of Thirst for Good is basically pointless and will have little impact other than a visible face to promote the beverage industry. RVM's have a limited capacity to address litter in their own right – the primary benefits of automation are:

- Faster processing
- Less space (leading to better convenience and lower property costs)
- Electronic data management to reconcile redemption.

These features enhance the operation of a CDS – reducing costs and improving recovery rates but on their own they do little to reduce litter.

The most successful non-financial rewards programs that have been attempted are:

1. Reimagine. In 2010 this scheme rolled out in Texas across 3-4 sites targeting the recovery of at least 300,000 beverage containers per month. RVMs were located in supermarkets. Actually recovered just 64,000 containers a month (20% of target) at its peak and had ongoing financial problems – abandoned in 2014 noting: “After four years, the system was only able to capture about 25,000 containers per day”. (Resource Recycling, 30 Oct 2014) [Note: we understand this figure represented peak volume, not average volume]; &
2. Tesco. Tesco Supermarkets in the UK rolled out a ‘rewards program’ featuring 90 RVMs at their stores across 10 cities. After testing various incentive schemes: lottery, couponing, donation, loyalty card and no incentive at all and finally concluded that loyalty card was the most effective. Participation rates were low and the scheme was abandoned in 2014

Both schemes were better researched and supported than the proposed ‘Thirst for Good’ program – locating the redemption points in shopping centres (where they can access much greater redemption levels than in litter hotspots) and directly tied to the supermarkets marketing programs, but still failed.

A significant proportion of what is redeemed under TfG would have been disposed of in a bin

Other components of the Thirst for Good include:

“Community Cash for Containers”: This offers to provide a cage for bottle collection in each local government area in NSW, which is useful for rural areas but worthless in metropolitan areas. Councils would then offer to lend the cage to community groups (who pays for delivery and collection of cage and disposal of containers (based on Clean up Australia’s experience they are too contaminated to be recycled).

Community groups then receive a \$300 reward once they fill the cage with 6,000 containers (5¢ per container). This amount is too low to stimulate new litter activity and basically takes the venal view of paying community groups at a rate of roughly half what their efforts would be worth within a CDS.

The approach has obvious weaknesses when being deployed for large events (e.g. Clean up Australia Day reaches 1,425 sites and the cages will be able to be deployed in less than 10% of these locations) and again in smaller scale everyday clean-up approaches used by Responsible Runners, Beach Patrol, Take 3, Two Hands etc. where they collect regularly in smaller volumes and consequently will not be able to participate.

We would estimate that this program (due to its limited deployment) would operate (in total) for around 600 Days (6days/cage) per annum and recover some 3.6million containers – none of which would be new litter clean up activity.

Litter Collectors. This idea could have merit, industry funding 100 litter collectors to patrol highways is taking responsibility for their waste but the proposal does not detail (we suspect deliberately) the amount of time each of the 100 workers will be cleaning up. Given they would be sourced from a labour hire agency we suspect it is not long term – to make a meaningful difference the litter collectors would need to be engaged permanently.

100 full time litter collectors would reasonably be expected to recover a maximum of 30kg per person per day (this represents a higher level of recovery per day than any clean up in NSW on Tangaroa Blue's database of over 300 clean ups in NSW last year) would recover just 750 tonnes of litter (equivalent of 7.1million beverage containers in litter volume terms).

We note that the base cost to employ 2 staff working in a hazardous location via a labour hire agency and a truck would represent a cost of around \$140,000 per pair (or \$7million per annum). There would also be additional costs such as closing off lanes and reducing traffic speeds to improve safety.

Litter Bins: the proposal outlines that industry will pay for 2,000 new litter bins and assist local government in placement, maintenance and collection (but does not specify to what extent). Over and above the expected cost of \$2million to provide the bins, litter bins need to be emptied at least daily and typically cost around \$5 per lift (including weekend loadings) to undertake this function. At 2,000 lifts per day this represents a cost of some \$3.65million per annum + a MRF cost of another \$170,000.

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