Key issues

This discussion paper has been structured around the following key issues raised by community and CDS sector feedback on the Scoping Paper:

1. objectives of the CDS including resource recovery and recycling of container materials within a circular economy
2. scope of containers included in the CDS
3. scheme approvals (including container application fees) and container markings
4. CDS container return rates, including deposit value, container return and payment of the refund
5. governance of the CDS and its relationship to schemes in other jurisdictions.

The alignment of state and territory schemes was raised as a key issue that is incorporated into the other key issues in this paper.

It is proposed that changes to the CDS be made in a staged manner. The first stage would see improvements to governance which will create a more efficient, streamlined, fairer and cost effective CDS. The second, if determined necessary, would involve amending the scope to incorporate a wider range of beverage containers, but remove containers less than 150 millilitres in support of national alignment. The consideration of increasing the deposit amount would also be reviewed with other jurisdictions. An efficient modernised CDS achieved in stage 1 would maximise the benefit of any stage 2 changes.

Note that economic modelling for each key issue has been undertaken on potential individual improvements that can be made to the CDS. It is likely that a suite of improvements will be made across all key issues such that the total economic benefit resulting from improvements will be at least the sum of the total of all improvements applied, or greater if synergistic effects occur.

Key Issue 1: Objectives of the CDS

The objects of the *Environment Protection Act 1993* (EP Act) focus on promoting the principles of ecologically sustainable development, preventing environmental harm, application of the waste management hierarchy and promoting the circulation of materials through waste management processes to support a strong market for recovered resources. Furthermore, the CDS objectives seek to minimise litter, protect the environment and facilitate beverage container recovery for recycling. It does this by setting up an extended producer responsibility process involving beverage producers and suppliers and facilitates the product stewardship responsibilities of beverage consumers and the South Australian community. The delivery of the CDS objectives provides a number of additional community benefits, including generating revenue for community groups, sporting clubs and schools and complementing the recyclable material recovery services offered within communities (see Figure 4).

Scoping Paper feedback: The objectives of the CDS

The Scoping Paper asked questions to generate discussion around the need to modernise the objectives of the CDS.

The SA community and sector stakeholders wished to retain the following current CDS objectives:

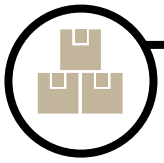
- reduction of litter
- reduction of waste to landfill
- growth of beverage container recycling through accessibility of the return points (currently CDS depots).

The sector stakeholders also identified that a modern CDS should seek to:

- further support resource recovery and recycling within a circular economy
- revitalise community education on waste avoidance, resource recovery and recycling, and participation in the CDS
- support local employment and jobs.

Figure 4—Objectives of the CDS

Objectives and Benefits of the South Australian Container Deposit Scheme



Product stewardship

The SA Container Deposit Scheme commenced in 1977 and is one of the longest running and successful product stewardship schemes in Australia. It acknowledges that those involved in producing, selling, using and disposing of products have a shared responsibility to ensure that those products or materials are managed to reduce environmental impacts throughout their life cycle. The CDS requires beverage suppliers to ensure that a system is in place for the recovery and recycling of eligible beverage containers.

Resource recovery & recycling

SA depots are designed for the return of large amounts of beverage containers from the community.

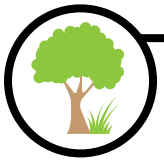
Many of the depots accept a wide range of other recyclable materials. Each year around 600 million drink containers (over 40,000 tonnes) are returned for refund and recycling, representing a 77% return rate, preventing those containers from being littered or landfilled.

The retention and recirculation of high-value CDS container materials continues to enable a strong domestic market for recycling and processing these recovered resources into new products.

Reducing litter

Discarded beverage containers adversely affect amenity and enjoyment of the outdoor environment, result in significant clean-up costs for local governments and other land managers and create environmental risks to wildlife.

Container deposit refunds create a financial incentive to collect containers for recycling. As a result, eligible beverage containers only contribute to 3% of total litter.



Protecting the environment

The objects of the *Environment Protection Act 1993* (EP Act) promote the principles of ecologically sustainable development, preventing environmental harm and ensuring the circulation of materials through the waste management process to support a strong market for recovered resources.

Specific beverage container provisions in the EP Act prohibit the supply or sale of beverage containers unless there is a litter control and waste management arrangement in place to collect and recover those containers for recycling.

Community participation

The container deposit scheme also provides a financial benefit, through fundraising to community groups, sporting clubs and charities that operate a depot, partner with an established depot or collect empty containers for refund.

The benefits to community groups and schools from CDS container deposit refunds are significant and flow on to the broader community via the wide variety of activities funded.

Acknowledging the broader benefits of the CDS objectives

The environment under which South Australia's container deposit scheme now operates is very different to when it was first established in 1977. The SA economy has undergone significant change including to consumption patterns, available waste and recycling markets, together with the community desire to reduce waste generation and ensure the circulation of resources within a circular economy. The CDS framework has adapted well to these changes, but must continue to adapt in this dynamic environment in order to further the realisation of the CDS objectives. The review of the CDS objectives has taken into consideration the national and state's transition to more circular economies and the role of the CDS as a pathway to achieve some of the targets and priority areas (see Table 1).

Table 1—State and national targets directly relevant to CDS schemes

National Waste Action Plan 2019

- Ban the export of waste plastic, paper, glass and tyres, commencing in the second half of 2020.
- Reduce total waste generated in Australia by 10% per person by 2030.
- 80% average resource recovery rate from all waste streams following the waste hierarchy by 2030.
- Significantly increase the use of recycled content by governments and industry.
- Phase out problematic and unnecessary plastics by 2025.

Australian Packaging Covenant Strategic Plan 2017-2022

- 100% of packaging in Australia to be reusable, recyclable or compostable.
- 70% of plastic packaging recycled or composted.
- 50% average recycled content across all packaging.

It is noteworthy that the European Union has a target of up to 70% recycled content by weight[12]. Therefore, producers exporting to the EU may need to meet this target in the future.

South Australia's Waste Strategy 2020-2025

- Target of zero avoidable waste to landfill by 2030.
- Diversion of 75% metropolitan municipal solid waste from landfill by 2025.

Priority actions

- Transitioning to a circular economy.
- Maximise the effectiveness of the CDS by identifying new items to be included in the CDS and ensuring all containers are recycled locally or nationally.
- Identify and implement initiatives that seek to optimise the recovery and remanufacture of glass containers and reduce contamination of other recyclables.
- Reduce the amount of recyclables in kerbside waste bins.
- Reduce litter and improve waste management in regional areas, Aboriginal land holdings and outback areas, including the recovery of beverage containers.

The circular economy

The *National waste policy: Less waste, more resources 2018*[13] provides a framework for collective action by businesses, governments, communities and individuals until 2030. The policy identifies five overarching principles underpinning waste management in a circular economy. These include:

- avoid waste
- improve resource recovery
- increase use of recycled material and build demand and markets for recycled products
- better manage material flows to benefit human health, the environment and the economy
- improve information to support innovation, guide investment and enable informed consumer decisions.

12 European Commission, Implementation of the Waste Framework Directive, https://ec.europa.eu/commission/presscorner/detail/sv/MEMO_18_6.
13 Australian Government 2018, *National Waste Policy*, https://www.environment.gov.au/system/files/resources/d523f4e9-d958-466b-9fd1-3b7d6283f006/files/national-waste-policy-2018.pdf.

The *National Waste Policy Action Plan 2019*[14] creates targets and actions to implement the 2018 National Waste Policy and guide national efforts to 2030 and beyond. Targets directly relevant to the CDS are listed in Table 1. The *Creating value: The potential benefits of a circular economy in SA*[15] report that was commissioned by Green Industries SA (GISA) in 2017 sought to understand what a more circular economy could mean for South Australia and evaluate the opportunities it might create. The report identified that, by 2030, compared with a 'business as usual' scenario, a more circular economy could deliver significant job creation and greenhouse gas reduction benefits. Transition to a circular economy has the potential to create an additional 25,700 (FTE) jobs and reduce SA's greenhouse gas emissions by 27% or 8 million tonnes of CO_2 equivalent[16].

In 2017, the *Environment Protection Act 1993* was amended to modernise and strengthen its powers to better support a strong resource recovery sector to contribute to a circular economy. Applying the waste management hierarchy to keep materials in circulation for as long as possible to maximise the value of these materials over time is a key principle of a circular economy. The *Environment Protection (Waste to Resources) Policy 2010* also drives resource recovery and recycling in SA. Together they support the implementation of South Australia's Waste Strategy 2020-2025[17] to avoid the disposal of these resources to landfill and the recovery and return of high-value resources to a more productive circular economy.

Product stewardship

In 2020, the Australian Government commenced a review of the *Product Stewardship Act 2011* including how to improve Australia's management of end-of-life products and transition to a circular economy.

The *Australian packaging covenant strategic plan 2017–2022*[18] that was published in 2019 outlines how circular economy principles will be applied to all packaging made, used or sold in Australia. The plan provides a broad framework in accordance with the National Environment Protection (Used Packaging Materials) Measure 2011, which includes four targets to be achieved by 2025, three of which are relevant to the CDS and listed in Table 1.

Underpinning current investments, local employment and community services

The waste management and resource recovery sector is a vital part of the South Australian economy providing an annual turnover of $1 billion and approximately 4,800 people with direct and indirect employment. In relation to direct employment, the industry creates 9.2 full-time equivalent employees for every 10,000 tonnes of waste compared with 2.8 full-time equivalent employees for the same amount of waste that goes to landfill (Green Industries SA 2015)[19].

Fluctuating commodity prices for recyclables such as paper, cardboard and mixed plastics and high sorting costs are regular challenges faced by the resource recovery and recycling industry. In 2017, China notified the World Trade Organisation that it would no longer be accepting certain kinds of solid waste, including plastic waste and unsorted waste paper. Other countries have since adopted similar policies further reducing the ability to export recyclable materials collected within Australia.

Relevant to this CDS review is the pivotal role that the CDS plays in the local resource recovery sector. Clean and colour-sorted CDS materials provide highly sought after recyclable feedstock for manufacturing with a value six times that of the commodity price. This higher value is reflective of the CDS deposit per container and

14 Australian Government 2019, *National Waste Policy Action Plan*, https://www.environment.gov.au/system/files/resources/5b86c9f8-074e-4d66-ab11-08bbc69da240/files/national-waste-policy-action-plan-2019.pdf.
15 Green Industries SA 2017, *Creating value: The potential benefits of a circular economy in SA*, https://www.greenindustries.sa.gov.au/documents/Potential%20Benefits%20of%20a%20Circular%20Economy%20in%20South%20Australia%20-%20report%20%282017%29.pdf?downloadable=1.
16 Green Industries SA 2021, *Driving the circular economy*, https://www.greenindustries.sa.gov.au/driving-the-circular-economy.
17 Green Industries SA 2020, *Supporting the Circular Economy: South Australia's Waste Strategy 2020-2025*, https://www.greenindustries.sa.gov.au/resources/sa-waste-strategy-2020-2025.
18 *Australian packaging covenant strategic plan 2017–2022*, https://www.environment.gov.au/system/files/resources/e2f0f12e-fa6e-4a4b-94e3-1268d9cd1360/files/australian-packaging-covenant-strategic-plan-2017-2022.pdf.
19 Green Industries SA 2020, *Supporting the Circular Economy: South Australia's Waste Strategy 2020-2025* https://www.greenindustries.sa.gov.au/resources/sa-waste-strategy-2020-2025.

the demand for clean and sorted recovered plastics, aluminium, liquid paperboard[20] and colour-sorted glass cullet ready for recycling into high-value products.

Both in SA and NSW the value of CDS materials offsets the falls in profit at local MRFs due to the 2017 export market collapse (Ritchie 2020[21]). This has resulted in many MRFs being able to limit their gate fee increases and costs to local governments as the international import restriction policies took effect, through the revenue provided by CDS recovered material. The CDS has and will continue to provide a significant revenue stream for MRFs, which helps ensure resource recovery and recycling of kerbside recyclables remains financially viable in the continuing situation of export restrictions.

The CDS also has a significant footprint in the state economy in terms of infrastructure, employment and community support. The recovery and recycling of empty CDS beverage containers requires depots, super collectors and MRFs to establish tailored business systems and infrastructure. Entrepreneurial community-based organisations have also established their business systems and infrastructure to benefit from revenue generated by the CDS.

It is intended to build upon this economic footprint (see Table 2) by finding improvements that are complementary and value add to the existing investment. The current direct footprint of the CDS operations, including the value of CDS participants to the state economy and estimated economic impact associated with the CDS, is as follows:

- The 132 depots operating across SA are estimated to generate a net revenue of $33 million from the handling fees paid to depots by super collectors
  - The receipt and processing of empty beverage containers results in 292 (FTE) jobs within the depots equating to an estimated $14 million in wages paid to employees
  - It is also estimated that $11 million of other value is added to the state's economy by the depots.
- Coordination and administration of the CDS by the super collectors is estimated to generate a net revenue of $23 million
  - The net revenue of super collectors results from $12 million paid by liable beverage producers and suppliers to super collectors to coordinate the scheme on their behalf and $11 million arising from the sale of recovered beverage container materials
  - The coordination and administration of the CDS results in 110 (FTE) jobs employed at the super collectors, $9 million in wages and added value of $4 million to the state's economy.
- The estimated $10 million net revenue of MRFs stems from the recovery of CDS containers from the kerbside co-mingled recyclables bin
  - The revenue is generated from the refund of the deposit and also the sale of beverage container materials to the recycling market
  - The recovery of CDS containers at MRFs in SA adds 68 (FTE) jobs within the MRFs, $4 million in wages paid and added value of $3 million to the state's economy[22].

20 Currently, liquid paperboard is not highly valued.
21 Ritchie 2020, *2 years since Asia stopped taking our recycling. Where do we stand?*, https://mraconsulting.com.au/2-years-since-asia-stopped-taking-our-recycling-where-do-we-stand/.
22 Hudson Howell 2020, South Australian Environment Protection Authority, Container Deposit Scheme Economic Analysis Review December 2020, https://www.epa.sa.gov.au/files/15056_cds_econanalysis_review_report_dec2020.pdf.

Table 2—CDS economic footprint of SA depots, super collectors and material recovery facilities

	Net revenue ($m)	Employment (FTEs)	Wages ($m)	Other value added ($m)
Depots	$33.31	292	$13.56	$11.48
Super collectors	$23.29	110	$9.32	$3.96
MRFs (proportion linked to CDS product only)	$9.97	68	$4.28	$2.57
Totals:	**$66.57**	**470**	**$27.16**	**$18.01**

One of the findings of the South Australian Parliamentary Inquiry into the recycling industry is that: 'submitters and witnesses all recommended that government policy focus on the creation of local markets for recyclable and recycled products'[23]. Another finding was that: 'Overwhelmingly, there was a desire to decouple the state from external markets and to provide self sufficiency for future generations'.

This echoes one of the recommendations of the Northern Territory CDS scheme review undertaken by Ernst & Young for the Department of Environment and Natural Resources[24]. The purpose of that review was to explore and identify opportunities to promote circular economic activity and the domestic recycling of materials through the expansion and promotion of the domestic recycling industry and markets for recycled material.

South Australia currently has around a 50% share of the glass manufacturing in Australia, where the manufacturers utilise the highly valued CDS glass not only from SA, but also from NSW and QLD. South Australia's Recycling Activity Survey 2018-19 Report[25] identified that the outlook for the recovery of glass is expected to remain strong, as follows:

- Glass bottling companies continue to demand higher proportions of recovered glass in their manufacturing process.
- A significant part of the glass recovery arises from glass bottles returned as part of SA's CDS. This source of glass is of high quality and able to be turned to cullet and used by glass bottle manufacturers.
- Lower grade (MRF) glass can continue to be recycled for use in road base. However, this is a lower value option and represents a substantial cost to the kerbside system. The potential expansion of glass products under the CDS would likely increase volumes of high-quality source-separated glass that can be used for bottle remanufacture.

Plastics recovery and processing occurs within SA and interstate with the main remanufactured materials being recycled HDPE and PET pellets, granules and flakes. The majority of these materials are then sold for remanufacturing of plastic containers and other products either locally, interstate or overseas. CDS-derived recovered materials account for a significant proportion of the feedstock of these facilities. This provides a comparative advantage that could be grown and capitalised on further should the policy settings be conducive and more feedstock materials be made available.

Increasing the recovery of materials and the supply of these resources through the CDS and/or from an improved kerbside waste and co-mingled recyclables system, can underpin current investments and support additional investments in the domestic resource recovery and recycling sector. This in turn can encourage confidence in markets for local recycling and product remanufacturing and transition towards a circular economy.

Around 45 countries and territories around the world have container deposit or container return schemes

23 Environment, Resources and Development Committee, Parliament of South Australia—An Inquiry into the Recycling Industry, https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/WasteandRecycling/Report.

24 Department of Environment and Natural Resources 2018, *Evaluation of the operation of the Northern Territory container deposit scheme*, https://ntepa.nt.gov.au/__data/assets/pdf_file/0011/590798/cds_review_report_ernst_young.pdf.

25 Green Industries SA 2020, *South Australia's recycling activity survey 2018-19 report*, https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjBjcH7-8ryAhVAzTgGHZ-cCZYQFnoECAIQAQ&url=https%3A%2F%2Fwww.greenindustries.sa.gov.au%2Fdocuments%2FGISA_RAS%2520Report%25202018-19_final%255B1%255D.pdf%3Fdownloadable%3D1&usg=AOvVaw08x4-QKpgvtSnU4sPQN_st.

operating within an environment of shifting global consumption patterns, changing waste and recycling markets, and the desire to retain the circulation of resources within a circular economy. Newly designed and recently revised schemes (see appendix 3) focus on the avoidance of litter and the collection and recovery of container materials to support a circular economy by supplying markets with recovered resources.

Preferred option – Modernise the features of the CDS

The proposed update of the CDS objectives aims to provide a 'best fit' approach for SA, which both modernises and builds on the success of the current established scheme. It is planned to clarify the current purpose of the CDS, in other words, litter control; resource recovery and product stewardship; and strengthen the promotion of the circulation of materials through resource recovery and support a strong market for recovered resources within a circular economy. This includes supporting the current resource recovery and recycling services offered to the SA community, local business, employment growth, and participation of community groups.

It is recommended to further support CDS in SA to:

- continue to ensure beverage producer and supplier ownership for providing an efficient and effective container recovery and recycling system where fair contributions are made by beverage producers and suppliers
- further strengthen and underpin the financial viability and sustainability of the CDS and broader resource recovery and recycling markets in SA
- complement the kerbside waste system and improve the recycling outcomes of resources placed in the co mingled recyclables bin
- expand options for local employment within CDS-associated processing and remanufacturing businesses and better promote opportunities for community groups, not for profit organisations and charities.

Questions

1.1 Do you think the CDS should be supported and recognised as a key pathway for supplying recovered materials to remanufacturers and to achieve state and national resource recovery targets by:

1.1.a supporting and building on existing beverage container resource recovery investments and infrastructure

1.1.b optimising the recovery of high-value beverage container materials that support a circular economy

1.1.c continuing to enable opportunities for local employment within the CDS and more broadly within the resource recovery and recycling sector

1.1.d enabling opportunities for community groups, not-for-profit organisations and charities to benefit from the CDS through direct participation and the development of partnerships within the CDS?