



Transport Canberra and City Services | ACT Government

FINAL REPORT - Five-year review of the ACT Container Deposit Scheme

MAY 2024

Acknowledgement of Country



Shantelle McCormack, Aranda/ Amatyerre artist, a student of Worawa Aboriginal College

Deloitte acknowledges the Traditional Custodians of the ACT, the Ngunnawal people.

We acknowledge and respect their continuing culture and the contribution they make to the life of Canberra and the region.

Deloitte further acknowledges the Traditional Owners of country throughout Australia and their continuing connection to land, sea and community. The country we live, work and travel on has been loved, celebrated and cared for over many millennia by their people and their spiritual and physical ownership has never been ceded.

We thank them and pay our respects to them, to their cultures, and to the Elders both past and present.

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Glossary

Term / Acronym	Definition
ACT	Australian Capital Territory
ACT Circular Economy Strategy and Action Plan (2023 – 2030)	The ACT’s Strategy and Action Plan, outlining actions and opportunities to build a circular economy for the ACT
ACT NoWaste	The ACT Government branch responsible for regulating the Container Deposit Scheme
Assumptions	Factors or conditions that are presumed to be true, but may not be confirmed or guaranteed
ANU	Australian National University
Awareness	Refers to the percentage of ACT residents (aged 18 and over) who are cognisant of the scheme’s existence, its purpose, and how it operates
CDS	A Container Deposit Scheme (CDS) allows consumers to return eligible, empty drink containers and receive a refund per item
Constraints	Restrictions that affect the design, implementation, or operation of a program; these can be related to resources, such as budget, time, or manpower as well as external factors like regulation, policies, or technological limitations
Cost-recovery model	Financial framework in which the costs associated with providing the scheme are covered through fees, charges, or contributions from the beneficiaries or users of the scheme
Effectiveness	A domain as part of this review which considers how well the container deposit scheme is achieving its goals through evidence of progress toward its legislated objectives and intended outcomes
Efficiency	A domain as part of this review which considers the operational efficiency of the scheme implementation and delivery
EPA	Environment Protection Authority
Exchange for Change	The scheme coordinator, responsible for managing the financial operations, marketing, and community education, and ensuring the scheme's integrity
FTE	Full-Time Equivalent
Harmonisation	Aligning CDS schemes in Australian states and territories on expanding the scope of eligible containers (size and products), simplifying the application system for businesses, improving public uptake and return rates, and ensuring the schemes are as aligned as possible to drive recovery and recycling rates ¹
HDPE	High-density polyethylene
HEPA	The Heads of EPA Australia and New Zealand
Limitations	Restrictions encountered during the review process that affected the scope and depth of the analysis
LPB	Liquid paperboard
MCP	Mobile Collection Point
MRF	A Materials Recovery Facility (MRF) is a site that sorts, separates, and processes materials to create higher quality resources with higher value uses, including remanufacturing
Network operator	A person with whom the Minister enters into a network operator agreement (as per Part 10A.1, 64B)
Network return points	<ul style="list-style-type: none"> a) A waste facility used for the collection and handling of containers delivered to the facility for payment of a refund amount; or b) sites used for the collection and transport of containers to a waste facility for sorting and processing; or c) reverse vending machines (as per Part 10A.1, 64D)
NSW	New South Wales
NT	Northern Territory
Opportunities	A domain as part of this review which explores potential considerations for improvement, harmonisation, and optimisation of the scheme

¹ [Australia's container deposit schemes are growing, but navigating them can be confusing - ABC News, CDS behaviour change national research report, November 2023 \(epa.sa.gov.au\)](#)

Term / Acronym	Definition
Participation rate	Refers to the percentage of ACT residents who actively return eligible containers at return points and receive a refund or make a donation
PET	Polyethylene terephthalate
QLD	Queensland
Redemption rate	Refers to the proportion of eligible beverage containers supplied into the ACT that are returned through the scheme for recycling, either through the network return points or kerbside collection
Refund amount	An amount prescribed by regulation as the refund amount (as per Part 10A.1, 64F)
Refund marking	A marking or labelling, about a refund amount for a container, prescribed by regulation (as per Part 10A.1, 64G)
Regulation	For the purposes of this report, Regulation refers to the Waste Management and Resource Recovery (Container Deposit Scheme) Amendment Regulation 2018 (No 1) (No 9 Of 2018) (SL2018-19)
Resource recovery	Process of reclaiming and reusing valuable materials from returned containers to minimise waste and promote recycling
Return-It	The network operator, who manages the network of return points, logistics, and delivery of returned containers for re-use or recycling
RIS	A Regulatory Impact Statement (RIS) is an analytical tool that guides policy development and decision-making, prepared by the department, agency, or statutory authority responsible for a regulatory proposal ²
SA	South Australia
Scheme coordinator	A person with whom the Minister enters into the scheme coordinator agreement (as per Part 10A.1, 64B)
Stakeholders	For the purposes of this review, stakeholders consulted included those directly involved with administration, regulation, or operation of the ACT CDS. This includes members from ACT NoWaste, Exchange for Change, Re.Collect, and the Hume MRF
Supplier	means an entity that— (i) manufactures a container; or (ii) imports a container from a State or another country; and (b) carries on a business that is, or includes, the supply of a beverage in the container; but (c) does not include a person prescribed by regulation not to be a supplier (as per Part 10A.1, 64B)
Support rate	Refers to the percentage of ACT residents (aged 18 and over) who endorse the scheme and believe in its effectiveness in reducing litter and promoting recycling
TAS	Tasmania
VIC	Victoria
WA	Western Australia
Waste Management and Resource Recovery (Container Deposit Scheme) Amendment Regulation 2018 (No 1) (No 9 Of 2018) (SL2018-19)	The purpose of the Regulation is to provide detail on the arrangements for a container deposit scheme which will start in the Territory on 30 June 2018 under the Waste Management and Resource Recovery Amendment Act 2017
Waste Management and Resource Recovery (Processing Refund Protocol) Determination 2023 (DI2023-95) (Effective 1 January 2023)	Made under the Waste Management and Resource Recovery Act 2016, section 64L (Payment of refund amounts to material recovery facility operators). It sets out the methodology and conditions to be applied in determining the amounts payable to a MRF Operator by the Scheme Coordinator as a Processing Refund under the CDS
Waste Management and Resource Recovery Act 2016 (WMRR Act 2016), (A2016-51) (Effective 24 August 2022)	A republication of the Waste Management and Resource Recovery Act 2016 (including any amendment made under the Legislation Act 2001, part 11.3 (Editorial changes)) as in force on 24 August 2022. It also includes any commencement, amendment, repeal, or expiry affecting this republished law to 24 August 2022. The objects of this Act are to: (a) manage waste according to the following hierarchy: (i) minimise the generation of waste; (ii) maximise the recovery and re-use of resources; (iii) minimise the amount of waste that goes to landfill; and, (b) support innovation and investment in waste management; and (c) promote responsibility for waste reduction; and (d) promote best-practice waste management

² [Best Practice Guide for Preparing Regulatory Impact Statements 2003](#)

Term / Acronym	Definition
Waste Management and Resource Recovery Amendment Act 2017 (A2017-36) <i>(Effective 31 October 2017)</i>	Amendments to the <i>Waste Management and Resource Recovery Act (2016)</i>
Waste Management and Resource Recovery Regulation 2017 (WMRR Regulation 2017) (SL2017-20) <i>(Effective 27 November 2023)</i>	This is a republication of the Waste Management and Resource Recovery Regulation 2017, made under the Waste Management and Resource Recovery Act 2016 (including any amendment made under the Legislation Act 2001, part 11.3 (Editorial changes)) as in force on 27 November 2023. It also includes any commencement, amendment, repeal, or expiry affecting this republished law to 27 November 2023

Executive Summary

The Australian Capital Territory Container Deposit Scheme (ACT CDS) was established under the *Waste Management and Resource Recovery Act 2016* (the Act). The scheme was launched on 30 June 2018 to support the beverage industry in reducing and dealing with waste and litter generated by beverage product packaging and to increase the recovery of these materials.

The Minister is required to undertake a review of the operation of the Act, specifically Part 10A – Container Deposit Scheme, as soon as practicable after the end of its fifth year of operation.³ This review report delivers an evidence-based analysis of the effectiveness and performance of the ACT CDS and its alignment with best practices. Beyond the legislative requirements of the review, this report provides additional insight through comparison with other jurisdictions and considers opportunities for expansion and harmonisation of the scheme.

The review found that the ACT CDS has largely met its legislated objectives of establishing a cost-effective scheme and enhancing resource recovery. In its first five years of operation, the scheme has redeemed over 473 million eligible containers, established a network of accessible return points of varying formats across the territory, facilitated over \$130,000 in donations for community groups, and significantly increased awareness, participation, and redemption rates. The positive relationships between the key stakeholders involved in delivery provide a foundation for the performance of the scheme and foster an environment conducive to continuous improvement.

Moreover, the review highlights several positive impacts of the scheme, including the reduction of litter, the implementation of extended producer responsibility (EPR) principles, and the promotion of improved recycling outcomes compared to kerbside collection as a result of reduced contamination and higher quality recyclate. These outcomes contribute to the growth of the ACT's circular economy by enabling higher-value reprocessing and reducing reliance on virgin materials.

Engagement with key stakeholders involved in the delivery, administration, and regulation of the scheme revealed broad support for harmonisation at a national level to streamline processes, reduce duplication and ensure consistency across jurisdictions. While full harmonisation will require time and coordination across all states and territories, immediate opportunities exist to build efficiencies and reduce the administration burden for suppliers.

The review revealed that the ACT CDS can act as a lever to enable a more circular economy. This can be achieved through leveraging processes and knowledge from the CDS for other EPR schemes, potentially expanding redemption to other material types, and increasing accessibility of high-quality recycled materials.

Stakeholder consultation identified various areas to build on the positive performance of the scheme, including the enhancement of data collection and governance, improving cybersecurity resilience, and increasing transparency in reporting.

The review found that while the ACT CDS generally demonstrates alignment with best practice observed in other jurisdictions and overseas, there are potential learnings to be considered. These include reviewing and expanding the current legislated objectives and prioritising convenience to drive higher participation and redemption rates, as well as to enhance social and environmental outcomes.

Given the short timeframe to conduct and deliver this review report as prescribed by the Act, there may be an opportunity for the ACT Government to explore the findings outlined herein in more detail into the future.

Please refer to *Table i* for a summary of the key findings from this review.

³ ACT Waste Management and Resource Recovery Act 2016, Part 10A, Division 10A.7, 64ZC

Table i: Summary of key findings by evaluation domain

Domain	No.	Findings	Alignment to Act ⁴
Effectiveness	F1	A cost-recovery model has been implemented for the scheme, aiming to ensure its financial sustainability.	Division 10A.1
	F2	The ACT CDS has demonstrated consistent progress toward its objective to increase resource recovery.	Division 10A.1
	F3	The ACT CDS has demonstrated progress towards its intended short and medium-term outcomes, with long-term outcomes to be realised.	Division 10A.1 - .7
Efficiency	F4	The scheme has been delivered in scope and within expected timeframes despite challenges in achieving cost neutrality for government.	Division 10A.1 - .7
	F5	Clear governance arrangements, refined processes and robust reporting are supporting transparent and accountable operation of the scheme.	Division 10A.2 - .6
	F6	The ACT CDS has adapted its risk management approach as the scheme has matured. Whilst safeguards have been implemented to minimise major fraud, anecdotal evidence suggests opportunities to further reduce and mitigate risk.	Division 10A.2 - .6
	F7	The ACT CDS has demonstrated adaptability and resilience in effectively addressing a multitude of unique challenges.	Division 10A.2 - .6
Opportunities	F8	After five years of operation, an opportunity presents itself to review the legislated objectives to drive further environmental and social outcomes beyond container recovery.	Division 10A.1
	F9	International schemes illustrate best practice in differing ways, presenting opportunities for improvement in overall recyclability and recovery outcomes as well as the power of investing in convenience.	Division 10A.1 and 10A.4
	F10	Stakeholders identified a range of opportunities to optimise scheme operations and reporting.	Division 10A.1 - .7
	F11	For participation rates to improve, a combined approach is needed that considers infrastructure deployment alongside community engagement and education.	Division Part 10A.2 -.7
	F12	There are opportunities to enhance and expand the scheme to further serve circular economy ambitions.	Division 10A.1
	F13	Considerations for scheme harmonisation may benefit from leveraging short-term opportunities in a staged approach.	Division 10A.1

⁴ ACT Waste Management and Resource Recovery Act 2016

1 Introduction and context

1.1 ACT Container Deposit Scheme

The ACT Container Deposit Scheme (CDS), was established under Part 10A of the *Waste Management and Resource Recovery Act 2016* (the Act) and is enabled under Part 4A of the *Waste Management and Resource Recovery Regulation 2017*.⁵ As detailed in the legislation, the objectives of the scheme are to:

- (a) establish a cost-effective container deposit scheme to assist the beverage industry in reducing and dealing with waste generated by beverage product packaging; and
- (b) promote the recovery, reuse, and recycling of empty beverage containers.⁶

The ACT Container Deposit Scheme (CDS) commenced in 2018 under Part 10A of the *Waste Management and Resource Recovery Act 2016*. The CDS provides an accessible and efficient way to recycle drink containers, rewarding individuals with a 10-cent refund for each eligible container returned. As illustrated in Figure 1.1, participants collect their empty drink containers, ensuring they bear the 10-cent refund mark, and take them to one of the numerous network return points across the territory. These return points offer various refund options, including on-the-spot cash refunds, electronic refunds to a bank account through a Return-It Express account, or donating proceeds to a registered charity. Currently, a range of drink containers between 150ml and 3L are eligible for a 10c refund, including those made from glass, aluminium, steel, polyethylene terephthalate (PET), high-density polyethylene (HDPE), and liquid paperboard (LPB).

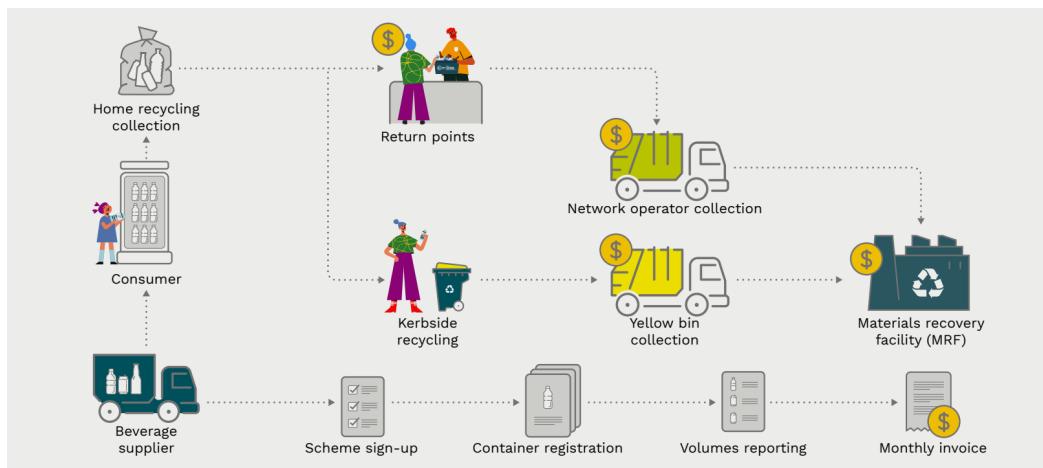


Figure 1.1: Diagram of ACT CDS operations⁷

The ACT is currently considering expanding the scope of eligible containers in the CDS in accordance with the National Environment Minister's agreed harmonisation of containers (size and products), refund amounts and container approvals in schemes across Australian jurisdictions by the end of 2025. Consultation on the proposed expansion of the ACT CDS ran for 12 weeks between 30 May 2023 and 22 August 2023. 91% of responses were in favour of the following inclusions to the scope of the CDS:

- water (inflatable sachets and other packaging types) – one to three litres
- fruit and vegetable juice (at least 90% juice and all container types) – one to three litres
- flavoured milk (all container types) – one to three litres
- concentrated fruit and vegetable juice intended to be diluted before consumption (all container types) – 150 millilitres to three litres
- cordial (undiluted and all material types) – 150 millilitres to three litres
- wine – 150 millilitres to three litres
- spirits – 150 millilitres to three litres.

⁵ ACT Waste Management and Resource Recovery Act 2016, Part 10A

⁶ ACT Waste Management and Resource Recovery Act 2016, Part 10A, Division 10A.1, 64A

⁷ ACT CDS Annual Report 2022-23

Operating on a cost-recovery model, the ACT CDS encourages participants' involvement while ensuring that the beverage suppliers fund the scheme, including container refunds and operating costs. The administration of the scheme is a partnership between the scheme coordinator (Exchange for Change (EFC)) who manages financial operations, marketing, and community education, and ensures scheme integrity, and the network operator (Return-It) who manages all return points and guarantees the recycling of returned containers. The ACT Government (represented by ACT NoWaste) administers and regulates the scheme to ensure it is operating efficiently. The Hume Materials Recovery Facility (MRF) plays a vital role in the scheme, processing eligible containers collected from kerbside recycling, for which it can claim a refund for, as well as those received through the network return points.

Increasing the proportion of returns through the network helps optimise resource recovery and leads to a higher proportion of recyclable content. Containers collected via kerbside recycling may be damaged, contaminated and this contamination hinders high-value reprocessing. Network returns help minimise contamination and ensure a clean stream of high-quality, higher-value materials, ultimately enhancing the overall quality of recyclables.⁸

In the scheme's first five years of operations over 473 million eligible containers were redeemed. The scheme has encouraged positive recycling behaviours within the local community with a network consisting of 22 accessible redemption points of various types. The scheme's strategic approach has resulted in an increase in support rates from 82% to 85%, and a rise in participation rates from 32% to 61%.⁹ Despite the ongoing impacts of COVID-19 and a fire at the Hume MRF, the scheme has observed a steadily increasing participation rate and achieved a redemption rate of 70% in 2022-23. Furthermore, the scheme has provided fundraising opportunities for local community groups, charities, and schools.

1.2 Purpose of this report

The Minister is required to undertake a review of the operation of Part 10A – Container Deposit Scheme of the Act, as soon as practicable after the end of its fifth year of operation.¹⁰ A report detailing the findings of this review is then required to be presented to the Legislative Assembly within a three-month period from the initiation of the review process.

The ACT Government, as represented by ACT NoWaste, has engaged Deloitte to undertake this review, providing evidence-based analysis within a clear, structured, and logical framework. To achieve this, Deloitte has reviewed program data and documentation, conducted research and engaged with the following key stakeholder groups through semi-structured interviews: ACT NoWaste (scheme regulator), Exchange for Change (scheme coordinator), Return-It (network operator), and Re.Cycle (material recovery facility operator).

The review report aims to determine the extent to which the CDS has achieved its policy objectives as set out in the Act. In addition, this review examines opportunities for potential expansion, harmonisation, and broader circular economy benefits. It not only identifies challenges and barriers that may have impeded the scheme's effectiveness, but also explores opportunities for enhancing its performance, thereby contributing to continuous improvement, and facilitating potential future expansions.

1.3 Limitations

The review process encountered limitations that influenced the scope and depth of the analysis. One such limitation was the timeline for the review, making it challenging to consult a broader range of stakeholders on scheme performance. Additionally, data availability posed limitations to the comprehensive assessment of certain outcomes. For example, there was a lack of available information to accurately measure the number of circular economy employment opportunities and track the total funds raised for community groups. Furthermore, data on the reduced costs to government for litter clean-up and customer response service was not readily accessible. Moreover, the absence of comprehensive targets and baseline data limited the ability to quantifiably measure the success of the scheme in some instances.

In addition to data availability, changes in data collection methods and the introduction of new metrics over time in some instances complicated analysis (for example, changes in how litter data was collected over time made it difficult to definitively measure the reduction in beverage container litter). The lack of baseline data and inconsistency in some datasets also posed challenges in comparing and accurately measuring improvement. These limitations highlight the need for future considerations and opportunities to address persistent data gaps and enhance the evaluation process.

⁸ [4 hidden benefits of Container Deposit Schemes \(planetark.org\)](#)

⁹ CDS 5-year data summary (ACT NoWaste)

¹⁰ ACT Waste Management and Resource Recovery Act 2016, Part 10A, Division 10A.7, 64ZC

2 Findings

2.1 Effectiveness

This report considers the scheme’s effectiveness, and in doing so assesses how well the scheme is achieving its goals through evidence of progress toward the legislated objectives and intended outcomes. Over the last five years, the ACT has made progress in establishing a cost-effective scheme and increasing resource recovery. The scheme has faced challenges such as COVID-19 and the Hume MRF fire which have impacted redemption rates. Despite this, the scheme has increased participation and access, delivered social and environmental impacts (both intended and unintended), and is supporting the long-term circular economy ambitions of the territory.

Finding 1: A cost-recovery model has been implemented for the scheme, aiming to ensure its financial sustainability.

Review of the scheme’s performance of its legislative objective (64A Objects - Part 10A.1) to:

(a) establish a cost-effective container deposit scheme to assist the beverage industry in reducing and dealing with waste generated by beverage product packaging.¹¹

The scheme has been designed to operate using a cost-recovery model, aligning with other Australian schemes such as New South Wales (NSW).¹² As Figure 2.1 illustrates, under this model, supplier contributions are utilised to offset projected operating expenses during the pricing period. Operating expenses include container deposits, network operating fees, MRF processing and exporter refunds, scheme coordinator fees, marketing fees, compliance fees and other relevant annual expenses. Any surplus or deficit is carefully considered for future pricing adjustments, ensuring a fair and sustainable scheme that does not generate any profit.

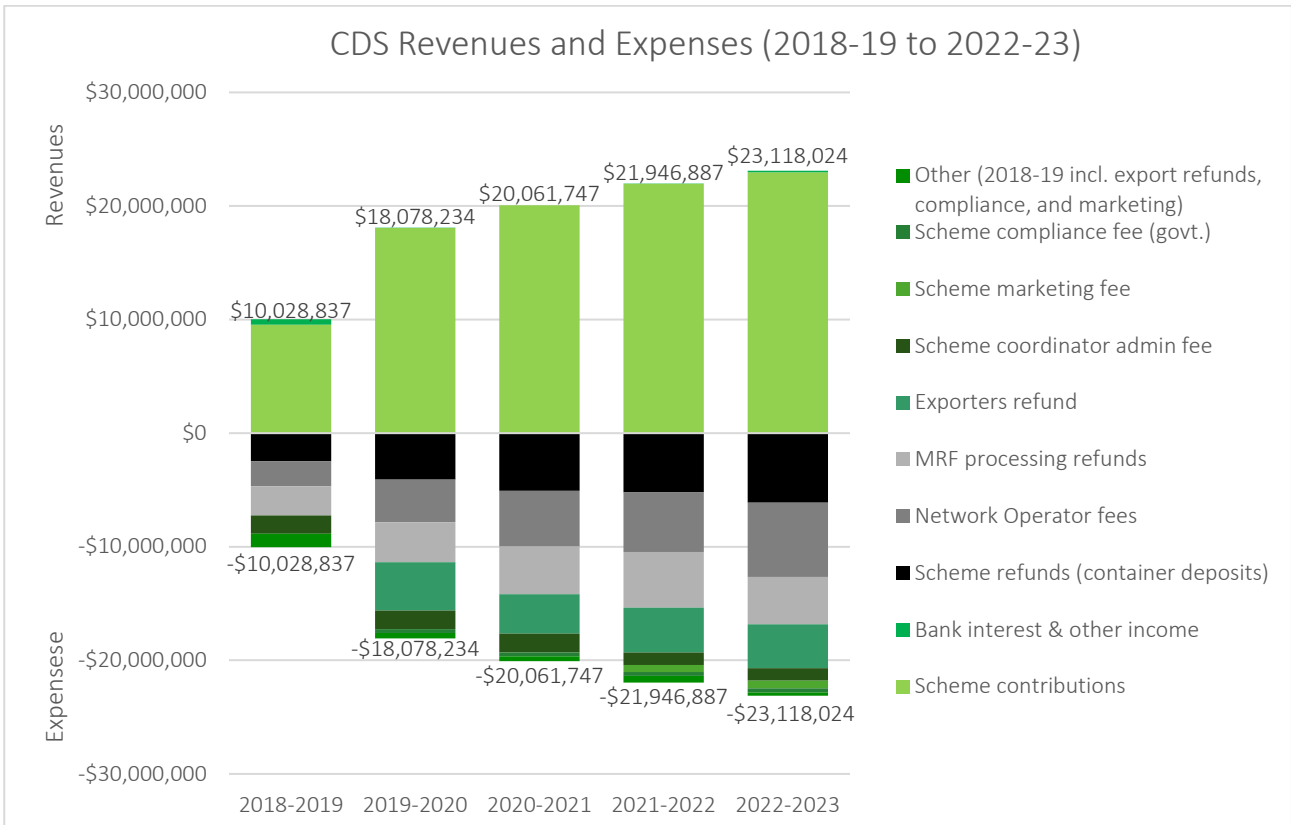


Figure 2.1: Yearly scheme revenues and expenses compositions¹³

¹¹ Waste Management and Resource ACT 2016, Part 10A, Division 10A.1, 64A

¹² [Return and Earn – Annual Statutory Report 2021-22](#)

¹³ CDS 5-year data summary (ACT NoWaste)

The scheme's cost-recovery model has proven effective, indicated by all scheme contributions (and additional revenues) offsetting scheme expenses. Furthermore, stakeholders consulted as part of this review stated that the scheme has demonstrated progress towards its legislative objective to establish a cost-effective system to assist the beverage industry in reducing and dealing with waste generated by beverage product packaging.

The pricing of each material type is established through a process of cost forecasting for monthly redemptions and allocation of fixed costs based on projected supply. The total cost is subsequently divided by the anticipated number of containers to be supplied during that specific period for each material type. In the next pricing period, any under or over forecasting of scheme costs in the previous period are considered when setting the new price for each material type. The under-forecasting of scheme costs due to muted scheme performance during COVID-19 meant some scheme funds could be used to reduce the pricing per container for subsequent pricing periods. The scheme account balance has now returned to more 'normal' levels and based on current forecasts there will be limited surplus to discount pricing in the next period.

From consultation previously conducted with suppliers, it was observed that costs of the scheme may be more easily absorbed by larger companies compared to smaller suppliers in the territory.¹⁴ As a result, the cost-value of the scheme has not been fully recognised by these smaller companies.

According to stakeholder consultation, for a small scheme like the ACT, delivery costs can be quite high due to fixed costs that remain the same regardless of the scheme's size. This results in limited opportunities to further drive efficiencies such as the cost of administration, collection, and processing. The ACT CDS has been able to achieve economies of scale to a certain degree, for example, through using the same Scheme Coordinator as NSW (EFC), who is able to leverage certain fixed assets and costs across both the ACT and NSW schemes.¹⁵

¹⁴ Supplier CSAT Appendices

¹⁵ [Home - EFC \(exchangeforchange.com.au\)](https://www.exchangeforchange.com.au)

Finding 2: The ACT CDS has demonstrated consistent progress toward its objective to increase resource recovery.

Review of the scheme’s performance of its legislative objective (64A Objects - Part 10A.1) to:

(b) promote the recovery, reuse, and recycling of empty beverage containers.¹⁶

Prior to the set-up of the ACT CDS, it was estimated that only 35% of beverage containers were being recovered from kerbside bins.¹⁷ Five years later, the ACT CDS has roughly doubled the redemption rate of CDS-eligible containers to 70%.¹⁸

As shown below in Figure 2.2, the ACT CDS has achieved a steady increase of year-on-year CDS-eligible redemption rates since the scheme’s inception, excluding the rate decrease in 2022-23 attributed to the Hume MRF fire.

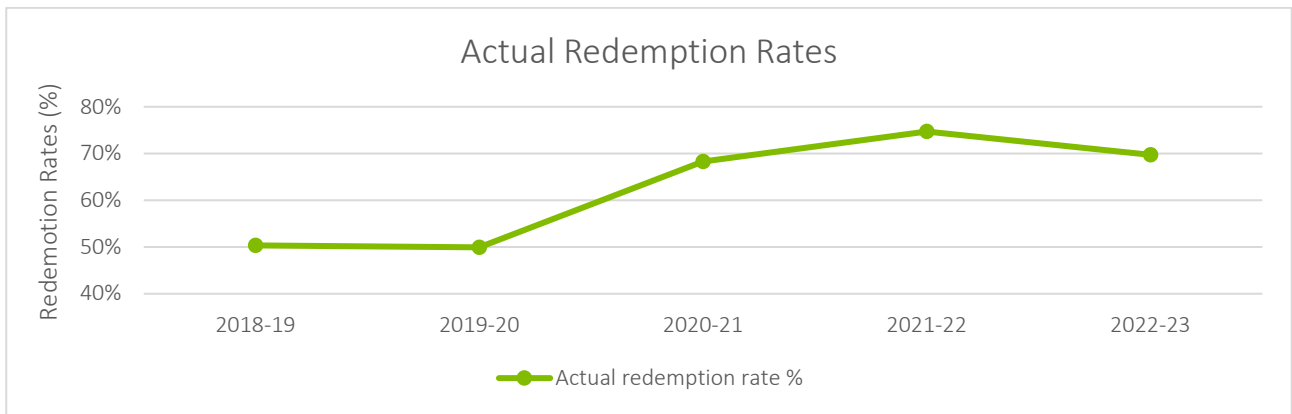


Figure 2.2: ACT’s redemption rate has improved over time¹⁹

From data reported in 2022-23, redemption rates in the ACT compare favourably with other domestic schemes (see Figure 2.3).

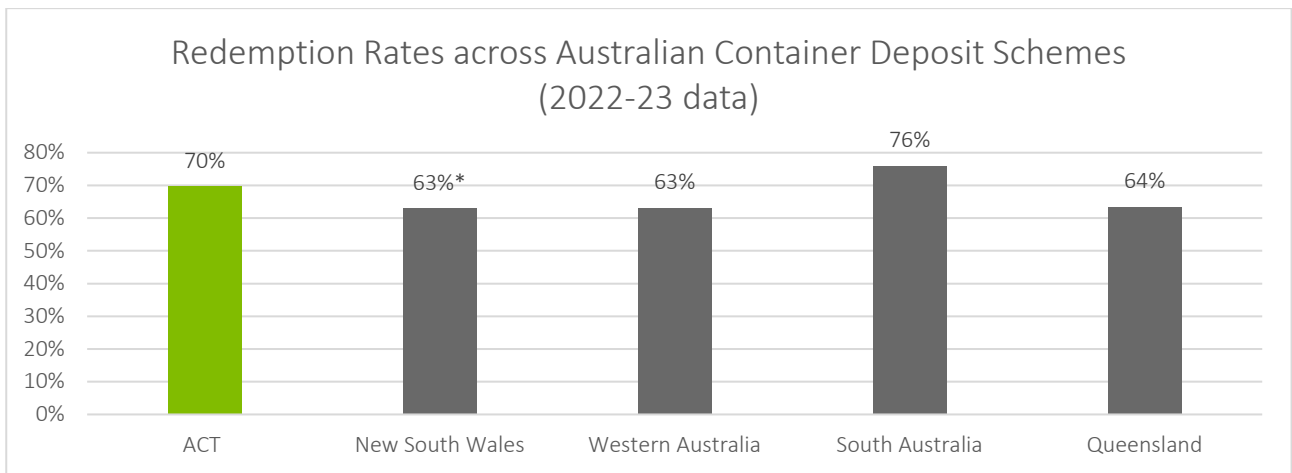


Figure 2.3: Redemption rates in the ACT compare favourably with other domestic schemes.²⁰ (*NSW data is from 2021-22. All rates rounded to nearest whole number)

As shown in Table 2.1 below, redemption rates decreased in the territory during 2022-23, which can be attributed, in part, to significant damage caused by a fire at the Hume MRF.

¹⁶ Waste Management and Resource ACT 2016, Part 10A, Division 10A.1, 64A

¹⁷ Container Deposit Scheme – Consultation Regulation Impact Statement, ACT Government, Transport Canberra and City Services Directorate, 2017.

¹⁸ ACT CDS Annual Report 2018-19, 2022-23

¹⁹ CDS 5-year data summary (ACT NoWaste)

²⁰ Deloitte Global CDS Scan sourced from the ACT CDS Annual Report, [Return and Earn NSW Annual Statutory Report 2021-22](#), [WA Return Recycle Renew Annual Report 2022-23](#), [EPA SA – Environmental Info](#), [QLD Container Exchange Annual Report 2022-23](#)

	2021-22	2022-23
Total containers supplied in the ACT	148,322,241	153,301,830
Total containers collected through the CDS	110,791,437	106,860,798
Annual redemption rate	74.70%	69.71%
Containers collected through MRF	53,501,405	39,548,703
Containers collected through MRF as %	48.29%	37.01%

Table 2.1: Changes in redemption rates and collection rates through the MRF (in the reporting year before and after the Hume MRF fire)²¹

To ensure continuity in recycling operations, materials were transported to facilities in Western Sydney and Victoria. Despite the challenges posed by the MRF fire, 6,550 tonnes of recyclable materials were successfully recovered. However, 60 tonnes of stockpiled materials, including both CDS-containers and other materials, were deemed unfit for recycling and classified as spoil, and were consequently sent to landfill.²²

In 2022-23, a higher proportion of containers were returned through the network return points compared to previous years (see Figure 2.4). This significant increase was largely due to reduced kerbside volumes processed via the MRF as a result of the fire, and needs to be considered in line with an overall drop in redemption rates for this year due to reduced capacity of the MRF.

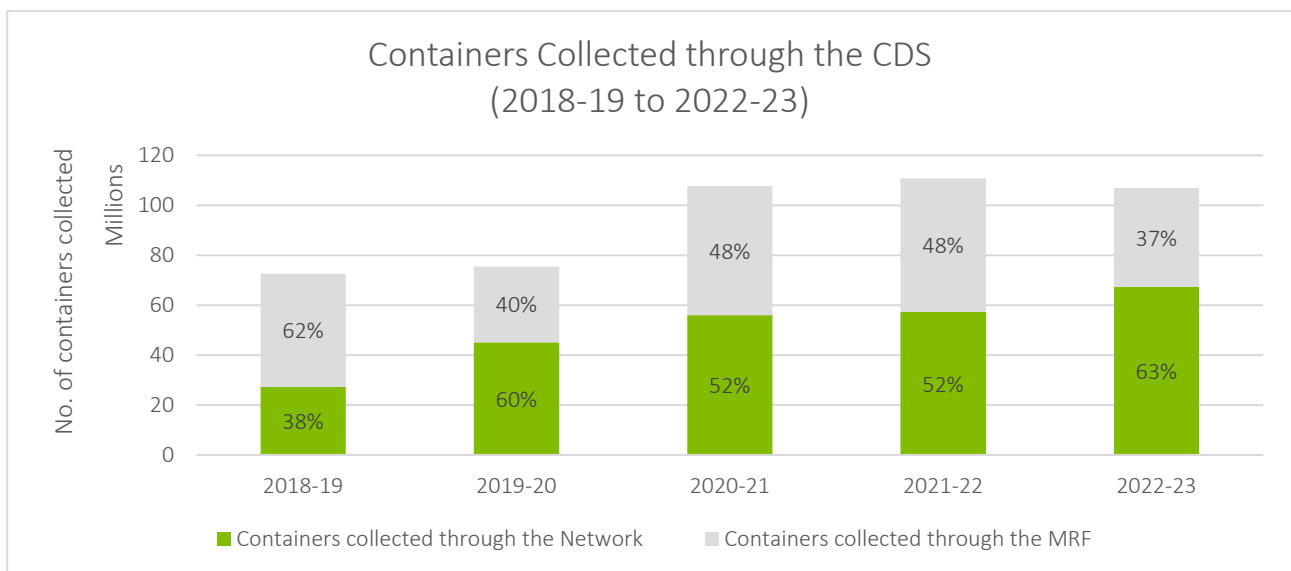


Figure 2.4: While the total count of containers collected through the CDS has increased over time, the proportion of containers collected through the Network vs the MRF has varied²³ (All rates rounded to nearest whole number)

²¹ CDS 5-year data summary (ACT NoWaste)

²² [Investigation released into fire at Hume recycling facility - City Services \(act.gov.au\)](https://www.act.gov.au/city-services/newsroom/investigation-released-into-fire-at-hume-recycling-facility)

²³ CDS 5-year data summary (ACT NoWaste)

Finding 3: The ACT CDS has demonstrated progress towards its intended short and medium-term outcomes, with long-term outcomes to be realised.

Review of the establishment and operation outcomes enabled under the provisions the legislation (Part 10A.1 - .7)

The scheme’s short-term and medium-term intended outcomes included increasing access and participation to the scheme, and positively influencing social and environmental outcomes in ACT. Since the scheme inception, the proportion of containers collected through network points compared to kerbside recycling has shifted significantly, from 38% in 2018-19 to 63% in 2022-23, correlating with the scheme’s growth in participation rates.²⁴

Access and Participation

In December 2022, the scheme conducted community and key stakeholder consultation and prepared a report on the awareness, understanding, participation, and growth opportunities of the scheme. The report found awareness of the scheme had grown to 87% unprompted and 88% prompted. Despite the scheme not being “top-of-mind”, overall satisfaction with the scheme (84%) and support (88%) remains high.²⁵

As illustrated in Figure 2.5 below, the scheme has successfully met its target to establish 22 network return points in the territory, as outlined per the Network Operator Agreement contract.²⁶ Customers can return their containers through the following network return points:

- Cash-back depots (4)
- Drop & Go return points (9)
- Drop & Go Pods (6)
- Reverse vending machines (2)
- Donation station (1)



²⁴ ACT CDS Annual Report 2018-19, 2022-23

²⁵ December 2022 Consumer Research Report (by Instinct and Reason consultants)

²⁶ CDS KPI's and Performance document (ACT NoWaste)

Figure 2.5: Distribution of network return points across the ACT; various location types are involved with the scheme including opportunity shops, supermarkets, community centres, educational institutions, and shopping centres.²⁷

Additional accessibility initiatives include:

- In 2023, the scheme introduced its first donation station launched at Australian National University (ANU) that accepts bottles and cans for donation to charity only. The smart bin features a barcode scanner then checks if a drink container is eligible for a refund before accepting it.²⁸
- ReCollect, the mobile collection service operated by Return-It, provides participants with an option of having containers collected from their homes which assists members of the public with mobility issues or those who cannot store containers at their homes. Mobile Collection Points (MCPs) (i.e., pop-up locations) will play an increasingly important role in extending the reach and accessibility of the scheme; MCPs will be imperative in further achieving increased redemption rates across low-participation areas across the ACT, including multi-unit dwellings, workplaces, event sites, etc.

Suppliers as defined under section 64C of the Act play a crucial role in the ACT CDS. They are responsible for funding the operations of the scheme, including the container refunds and scheme operating costs. Any businesses that sell beverages in containers or give them away as part of a promotion are considered suppliers. This includes manufacturers, distributors, wholesalers, or retailers. These suppliers must enter a supply agreement with Exchange for Change (EfC) and register any eligible containers. As per Table 2.2, since scheme inception, there has been a significant increase in supplier participation; commencing with 184 supplier arrangements in June 2018, the scheme had 686 supplier arrangements in force by June 2023.

	(Jun 2018)	2018-19	2019-20	2020-21	2021-22	2022-23
Supplier arrangements in force	184	261	366	466	577	686
Growth rate (YoY)	-	42%	40%	27%	24%	19%

Table 2.2: Change in supplier arrangements in force over time since inception²⁹

Social Outcomes

Sixty charities are registered beneficiaries of the scheme, allowing individuals to donate their 10-cent refunds. This does not include those who have registered using private accounts for fundraising purposes. Recently, the scheme has launched an appeal in partnership with OzHarvest, allowing individuals to donate their 10-cent container refund to help provide a targeted 50,000 meals for those in need.³⁰ This initiative supports OzHarvest's mission of rescuing food destined for landfill and transforming it into nutritious meals for families in need. Further, the scheme launched the ACT CDS Recycling Hero Passport in April 2023 as a fun activity for children to learn about setting goals, saving, and the positive effect they can have by recycling through the scheme.³¹

According to a report by the former Department of the Environment, Water, Heritage and Arts (currently DCCEEW), it has been estimated that for every 10,000 tonnes of waste, the Full-Time Equivalent (FTE) employment created is 9.2 for recycling and 2.8 for landfill.³² While the ACT CDS has contributed to an increase in job opportunities since its commencement, as affirmed by various stakeholders through stakeholder engagement, it is important to note that the specific ratio of jobs to waste diverted within the scheme is currently unknown.

Through stakeholder consultation, additional social benefits have been identified that positively impact the ACT community. An example of such benefits is the community or family days frequently hosted by the depot network, as well as promotion days that aim to highlight and educate the journey of a container.

²⁷ ACT CDS Annual Report 2022-23

²⁸ [First Donation Station for ACT CDS trialled at ANU - ACT Container Deposit Scheme](#)

²⁹ ACT CDS Annual Report 2018-19, 2019-20, 2020-21, 2021-22, 2022-23

³⁰ [OzHarvest Donation Appeal - ACT Container Deposit Scheme \(actcds.org.au\)](#)

³¹ ACT CDS Annual Statutory Report 2022-2023

³² [Employment in waste management and recycling \(dceew.gov.au\)](#)

Furthermore, the informal form of income for community members through container collection has been observed to contribute to the economic well-being of individuals within the community.

These additional social benefits demonstrate how the CDS goes beyond its primary purpose and positively impacts the ACT community in various ways.

Environmental Outcomes

An analysis of recovery rates in Figure 2.6 reveals variations across different material types, with glass, aluminium, and PET consistently representing over 95% of the quantity of redeemed materials. Known for their high recyclability, their redemption highlights the success of the scheme in diverting significant amounts of these materials from landfill and providing a clean stream of recycled content. The recovery of these materials aligns with broader environmental benefits, such as reducing carbon emissions and promoting a circular economy.³³

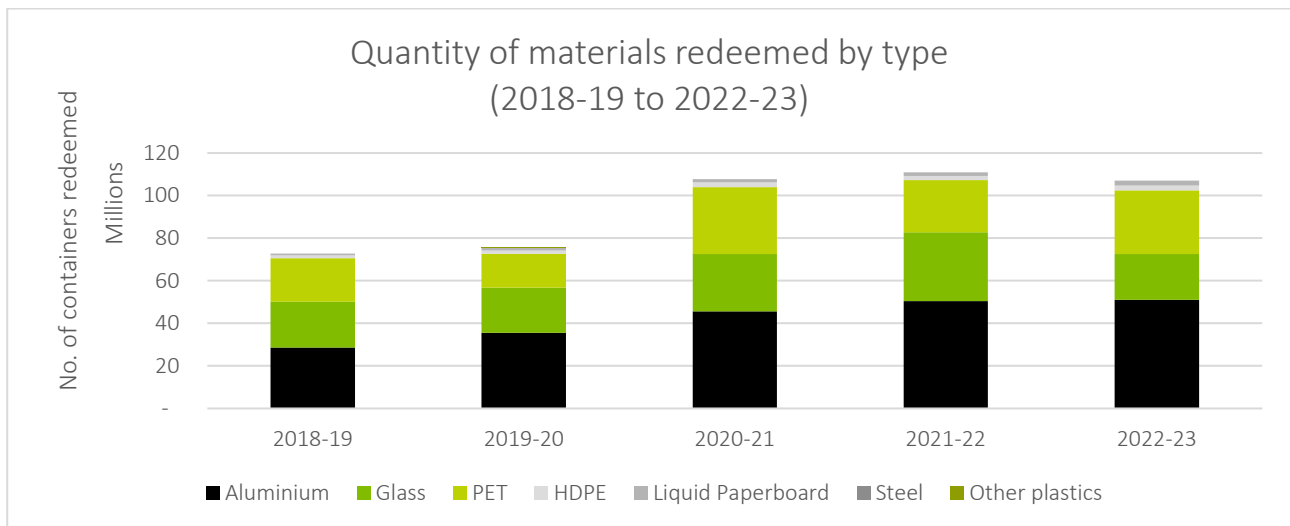


Figure 2.6: The number of containers redeemed through the CDS has increased over time, with aluminium, glass and PET being majority of the redemptions³⁴

A key premise for introduction of the CDS was to assist in reducing the littering of used beverage containers and promote their recovery through providing a financial incentive for their return to designated collection points throughout the ACT. This approach recognises the need for policy intervention to complement education and behaviour change campaigns, which alone may be insufficient to achieve desired outcomes.³⁵

As shown in Figure 2.7, reduction in eligible CDS container litter in the territory has been observed since the scheme’s establishment, as evidenced by findings from the Keep Australia Beautiful National Litter Index.³⁶ Annual litter samples are conducted on grouped and individual items.³⁷ While making accurate comparisons over the years proved challenging due to varying classifications for individual items, analysing the data for grouped items, which includes beverage containers that can be inferred as eligible CDS containers, reveals a consistent downward trend in littered beverage containers over time. This trend indicates the success of the scheme in achieving its objective of reducing litter.

In addition to demonstrating the positive impact of the scheme in combating littering and promoting recycling, the figures suggest the scheme is effectively working to ensure beverage producers bear the responsibility for the proper disposal or recycling of their packaging.

Note: The review did not include an audit of litter samples conducted by Keep Australia Beautiful. The below graph illustrates a potential correlation in litter reduction and the ACT CDS, since inception.

³³ <https://planetark.org/newsroom/news/4-hidden-benefits-of-container-deposit-schemes>

³⁴ CDS 5-year data summary (ACT NoWaste)

³⁵ Container Deposit Scheme – Consultation Regulation Impact Statement, ACT Government, Transport Canberra and City Services Directorate, 2017.

³⁶ Keep Australia Beautiful

³⁷ Grouped items pertain to sets of like items regardless of material (i.e., beverage containers = glass, plastic, and metals). Individual items pertain to single whole items found (i.e., bottle caps and lids, plastic beverage bottles, cigarette butts).

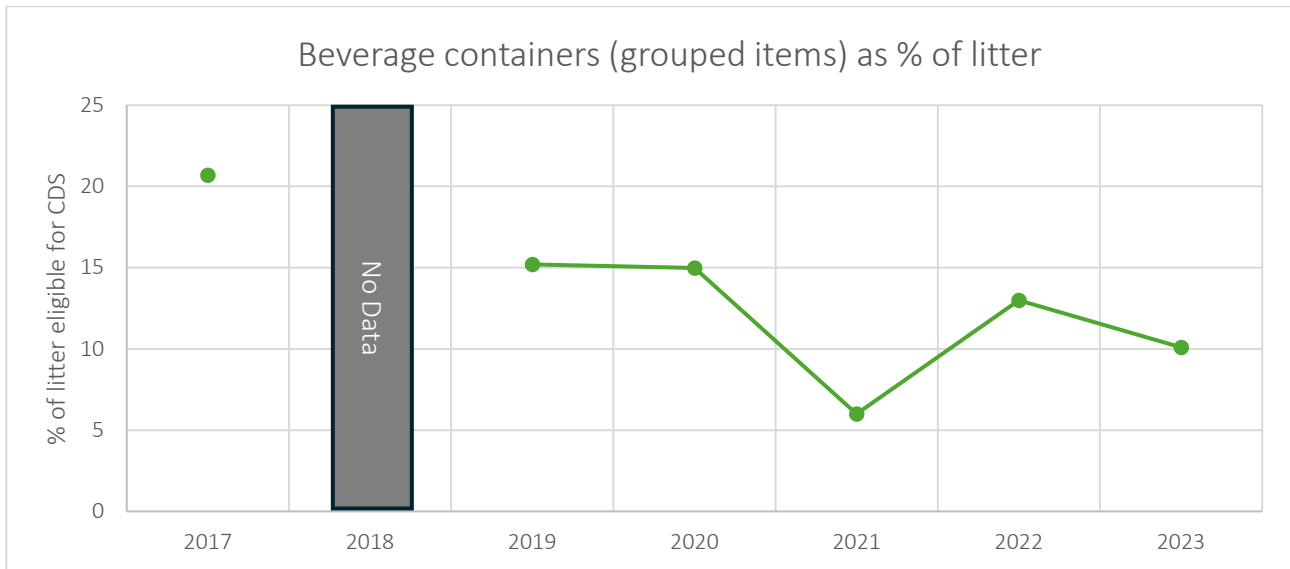


Figure 2.7: Percentage of beverage containers found in litter samples over time have decreased over time. Significant drop in 2021 may be due to COVID-19 lockdown.³⁸

In terms of indirect impacts, Lifecycles conducted a life-cycle assessment in 2022 to establish a robust baseline for the environmental benefits of diverting recyclable waste from becoming pollution or landfill, and this assessment was used to create a calculator to help consumers estimate the impact of their actions.³⁹ The calculator measures the environmental benefits the scheme enables, including CO2 emissions avoided, energy, water, and landfill savings.

Leveraging this calculator, the figures in Table 2.3 have been estimated for the environmental impact of the ACT CDS since inception.

Note: The review did not include an audit of the calculator or of its life-cycle assessment calculations (i.e., the figures below). The below figures were developed using the calculator retrospectively, following the development of the calculator in 2022.

	2018-19	2019-20	2020-21	2021-22	2022-23	Total
CO2 emissions avoided (KG)	3,958,917	6,541,393	8,111,785	8,307,055	9,760,254	36,679,404
Energy savings (GJ)	42,347	69,970	86,768	88,857	104,401	392,343
Water savings (L)	182,547,009	301,625,899	374,037,205	383,041,154	450,048,667	1,691,299,934
Landfill savings (KG)	1,881,168	3,108,290	3,854,496	3,947,283	4,637,803	17,429,040
Total containers collected through the network return points (excl. containers collected through kerbside)	27,302,873	45,113,057	55,943,345	57,290,032	67,312,095	252,961,402

Table 2.3: Environmental benefits delivered by the CDS year-by-year and overall, calculated according to the number of containers collected through the CDS network return points⁴⁰

Strategic Outcomes

The scheme is on track to meet its long term-outcomes, including supporting sustainability and circular economy ambitions in the territory.

³⁸ Keep Australia Beautiful National Litter Index Summary (2017-2023)

³⁹ [Life Cycle Assessment of the ACT Container Deposit Scheme](#)

⁴⁰ ACT CDS Annual Report 2018-19, 2019-20, 2020-21, 2021-22, 2022-23, [ACT CDS Impact Calculator](#)

The CDS aligns with the ACT Circular Economy Strategy and Action Plan 2023-2030. It supports all three strategic objectives of the strategy: growing extended producer responsibility, expanding markets for recovered materials and goods and fostering circular business models, while creating high-value jobs and attracting innovative new enterprises. The scheme's successful implementation and management provide valuable insights that can be leveraged to address other problematic waste materials.

Ongoing successful scheme performance paves the way for more comprehensive and effective waste management solutions, which should be developed in alignment with existing and future ACT government-prepared plans and priority areas, including the ACT Economic Development Priorities.⁴¹ Key investments have been identified in this plan to support Canberrans in generating less waste and stepping up recycling efforts to promote a circular economy and alleviate the dependency on virgin materials. Enabling the recoverability of a broader range of materials for recycling can facilitate greater circularity and ensure that the benefits of the CDS are maximised.

Further, the ACT Climate Change Strategy's action plan for zero net emissions by 2045 is supported by the CDS and its outcomes, which aids in reducing waste generation and increasing recycling.⁴²

The ACT CDS aligns with and supports several key government strategies and plans. It contributes to the ACT Waste Management Strategy 2011-2025, helping to ensure less waste is generated, resource recovery is maximised, and a cleaner environment is promoted.⁴³

Finally, the scheme resonates with the ACT Wellbeing Framework's emphasis on responsibly managing resources for future generations and creating a climate-resilient environment and community. The scheme has established and expanded its network of return points improving recycling rates and reduction in litter across the ACT, whilst achieving high awareness, support, and trust among residents.⁴⁴ It is evident that the CDS is and will continue to play an important role in achieving broader government strategic sustainability ambitions.

⁴¹ Mission 2 in "[CBR Switched on – ACT's Economic Development Priorities](#)"

⁴² [ACT Climate Change Strategy to 2019-25](#)

⁴³ [ACT Waste Management Strategy 2011-2025](#)

⁴⁴ [ACT Wellbeing Framework](#)

2.2 Efficiency

While assessing the scheme's operational efficiency, it was found that resources are being utilised effectively to support the objectives of the scheme. The implementation and delivery of the scheme have been accomplished within the anticipated timeframes and agreed scope, indicating proficient management. Though achieving cost neutrality has been challenging due to the small scale of the scheme, clear governance arrangements and streamlined processes have ensured transparent and accountable operations, enhancing overall efficiency. The scheme's risk management approach, which has matured over time, has successfully implemented improved systems for data management and safeguards against significant fraud.

Finding 4: The scheme has been delivered in scope and within expected timeframes but continues to face challenges in achieving cost neutrality for government.

Review of the scheme's financial and administrative outcomes in consideration of its legislative objectives under Part 10A.1 - .7.

The ACT CDS successfully commenced on 30 June 2018. This operational launch met the legislated commencement date outlined in Part 10A of the Waste Management and Resource Recovery Amendment Act 2017 and demonstrates efficient management of implementation timelines and agreed schedules.

The scheme was intentionally designed from inception to align with existing Australian schemes (SA, NT, and NSW) in relation to the types of materials accepted, the refund marking and the refund amount of 10 cents. This alignment aimed to reduce confusion for participants and minimise any additional administrative burden for suppliers.⁴⁵ Given the ACT's geographic location, it was considered particularly important to consider how the scheme would interact with that of neighbouring NSW.

Due to the relatively small scale of the scheme, cost efficiencies and cost-neutrality remain a challenge. The scheme is intended to operate at no cost to government through payment of an annual compliance fee supporting regulatory oversight responsibilities. However, this fee has not fully covered the cost of resources required for effective regulation and administration of the scheme, requiring additional investment and cost absorption by government. Future considerations for scheme expansion may exacerbate this gap and require increased funding and resources. A comprehensive review of true delivery costs and current revenue and funding mechanisms will provide a strong foundation for improvements in cost-effectiveness and the pursuit of cost-neutrality. The ACT Government will analyse regulatory impacts of scheme expansion according to an assessment process.

Furthermore, it is essential to consider the administrative costs to suppliers of participating in the scheme when assessing the overall financial outcomes. These costs, which are not factored into the overall scheme costs, include the resources and efforts required by beverage suppliers to register and partake in the scheme. Currently, there is work being undertaken to explore simplifying supplier participation through the development of a single point of entry portal, commissioned by the Heads of EPA Australia and New Zealand (HEPA) CDS subcommittee procurement panel, led by the NSW EPA.

Whilst the scheme is not fully cost neutral to government, efficiencies have been realised through the appointment of the same scheme coordinator as NSW (EFC). The scheme coordinator can leverage the expertise and capacity of the team to support both the NSW and the ACT schemes. Further efficiencies are seen to be enabled through the network operator and MRF being owned by the same parent company, reducing the administrative burden across these key roles. Additionally, Return.It operates as the major network operator in Queensland (QLD) and Western Australia (WA) and has a presence in NSW and Victoria (VIC). These efficiencies contribute to lowering costs and supporting the viability of the ACT CDS, which otherwise could prove more costly to administer.

⁴⁵ Container Deposit Scheme – Consultation Regulation Impact Statement, ACT Government, Transport Canberra and City Services Directorate, 2017.

Finding 5: Clear governance arrangements, refined processes and robust reporting are supporting transparent and accountable operation of the scheme.

Review of the scheme's operational and administrative outcomes under the governance provisions of Part 10A.2 - .6.

The legislation provides clarity for the scheme participants around scheme requirements and obligations under Part 10A.2 Scheme administration, 10A.3 Scheme coordinator agreement, 10A.4 Network operator agreements, 10A.5 Scheme compliance and 10A.6 Supply and collection of containers. The limited number of organisations involved in the scheme has contributed to clear governance arrangements and streamlined operations. The tripartite arrangement between the Scheme Coordinator, Network Operator and Scheme Regulator has established well-defined roles and responsibilities for scheme participants, underpinned by the legislation.

The Scheme agreements set out the governance framework which is prescribed by the Regulation. The scheme agreements make provisions for scheme arrangements and associated scheme documents which provide the structure for governance and transparency, compliance, along with a mechanism for improvement and adaptation via an annual review.

The Waste Management and Resource Recovery (Processing Refund Protocol) 2023 (MRF Protocol) is enabled under 64L of the Act which enables payments to the MRF Operator. Updates to the MRF protocol, including amendments to the Sampling Plan (which provides a sampling methodology and gives effect to the eligible container factor), have demonstrated efficiencies in counting containers and supported scheme integrity. Monthly output data is regularly checked and validated by the scheme coordinator, and refunds are processed quarterly. The Scheme Pricing Contribution Methodology dictates the obligations of the Scheme Coordinator and Supplier relationship, including supplier agreements, registration, and contribution processes.⁴⁶

There are currently no provisions within the legislation for an Agreement between the Scheme Coordinator and the MRF, which could assist with providing clarity around the governance arrangements for this aspect of the scheme. A contractual agreement with more clearly defined expectations and obligations could enhance the network arrangement and allow for more regular amendments when compared to a legislative instrument. An evaluation of the benefits and drawbacks of a commercial arrangement could support this decision.

Stakeholder consultation has indicated high levels of trust among the entities responsible for the delivery, administration, and oversight of the scheme, working together in the best interests of the scheme. However, it was also observed that the processes around day-to-day operation of the scheme could be better documented to manage the impacts of staff turnover and to ensure ongoing efficiencies.

Sections 64V Container approvals and 64W Requirement for supply, set out the scheme arrangements for container approvals and requirements for supply respectively. These provisions have enabled a mechanism for refinements in processes and have improved clarity around supplier obligations for registration and reporting. This has resulted in improved supplier satisfaction and fewer inquiries, indicating a better understanding of their obligations.⁴⁷

The provisions under sections 64P-U are working effectively to ensure compliance of scheme operations. The scheme undergoes a robust auditing process, including audits of the MRF, supplier data and container volumes, and regular inspections of collection points by government authorised officers to ensure accessibility, signage clarity, and cleanliness.

Under the scheme coordinator arrangements, mechanisms for review and improvement are in place, including through development of quarterly reports. Stakeholders suggested reporting requirements have generally been considered fit-for-purpose, with varying cadences depending on the type of information required. While the minimum legislated reporting requirements are being met by the scheme through delivery of an annual report, stakeholders flagged potential adjustments in reporting frequencies could be considered to increase efficiencies and enhance scheme transparency.

Given the substantial effort involved on behalf of the Scheme Coordinator, Network Operator and MRF in preparing reports in accordance with the current requirements, there are opportunities to create internal efficiencies to reduce the administrative burden of reporting obligations. This includes exploring alignment of the frequency of reports prepared with the value derived from them. This approach will not only minimise administrative and time burdens for all parties

⁴⁶ Scheme Payments and Contribution Methodology, [Scheme-payments-and-contribution-methodology.pdf \(actcds.com.au\)](https://actcds.com.au/scheme-payments-and-contribution-methodology.pdf)

⁴⁷ ACT CDS Annual Report 2018-19, 2020-21, 2022-23, ACT CDS supplier annual customer satisfaction research via Kantar Public

involved but also ensure that the necessary information is provided to facilitate effective decision-making and comprehensive monitoring of the scheme's performance.

Notably, since 2022, improvements have been made through the availability of data on the [scheme's website](#), including an impact calculator to calculate environmental benefits. This increased transparency on the scheme's impacts and not only provides stakeholders with valuable information but can also act as a motivator for participation (as participants strive to reduce their impact and witness the growth of their contributions).

The required agreements and arrangements in place have enabled the successful operation of the scheme, as demonstrated through the redemption rate, participation rate and positive consumer sentiment. Ongoing efforts to address inefficiencies, adjust reporting frequencies, and provide enhanced transparency through accessible data will further strengthen the scheme's efficiency and consumer trust.

Finding 6: The ACT CDS has adapted its risk management approach as the scheme has matured. Whilst safeguards have been implemented to minimise major fraud, anecdotal evidence suggests opportunities to further reduce and mitigate risk.

Review of the scheme’s risk management outcomes under the governance provisions of Part 10A.2 - .6. (incl. 64Z)

In response to health and safety concerns during the COVID-19 pandemic, the ACT CDS temporarily amended its audit plan to minimise the risk of virus transmission to employees and contractors. In December 2022, the pre-COVID-19 audit schedule resumed with additional safeguards to mitigate continued threat of disease spread and minimised low-risk audits, as agreed between the scheme coordinator and ACT NoWaste.⁴⁸ The Verification and Audit Plan, outlining the Scheme Coordinator’s approach to verify the accuracy of supplier reported volumes and ensure suppliers make the correct contributions to the scheme, has evolved to adopt a risk-based approach, particularly in supplier audits.⁴⁹ Stakeholders consulted stated that various ongoing governance improvements and opportunities will be considered to ensure the mitigation of any future risks to the scheme.

Initial instances of suppliers misreporting the number of containers entering the market have been successfully resolved with support from the scheme coordinator to ensure awareness of obligations and accuracy of reporting. As the scheme has matured, there has been a noticeable reduction in suppliers under-reporting the number of eligible containers (see Table 2.4).

	2018-19	2022-23
Supplier Audits	32	32
# of supplied containers audited*	60,569,949	159,000,000
Total variances in audits (under/overstatements of containers)	-482,364	18,221

**# of containers audited are approximate figures*

Table 2.4: Difference in audit variances in 2018-19 and 2022-23 indicate improved auditing processes, highlighted by the reduced total variance of stated containers.⁵⁰

While there are processes and systems in place to minimise fraud and data security issues, it is important to acknowledge that, since the commencement of the scheme, there have been some occurrences of fraud and data breaches. In response, processes have been established to mitigate future breaches and address any issues that arise. Ongoing, stakeholder engagement will play a crucial role in strengthening cyber resilience and systems, ensuring that the scheme is well-equipped to handle potential future attacks or breaches.

The MRF Protocol requires a statutory declaration for deposits of 1,500 or more containers and is reviewed by the scheme coordinator prior to payment. Stakeholder consultation anecdotally suggested that some individuals may be circumventing the system by making multiple deposits below this limit. These instances provide additional scope for risk management and detection processes to mitigate, identify and detect future behaviour that may provide opportunities for fraud.

Manual identification at certain collection points and the acceptance of crushed cans may increase the risk of fraud through the redemption of ineligible containers and duplicate redemptions. To address this, the scheme could explore the utilisation of existing and emerging technology solutions such as barcode scanning—as is done with the reverse vending machines—and artificial intelligence (AI) to enhance the identification of eligible containers and reduce duplication.

Further, due to its geographic location, the ACT is the only Australian scheme to accept materials from other jurisdictions. Currently, the MRF receives kerbside recycling from six NSW councils as well as materials coming through the NSW CDS network. These materials are being redeemed under the ACT scheme, impacting redemption rates and cost-effectiveness as the cost of recycling these cross-jurisdictional materials is borne by the ACT suppliers. Future harmonisation of Australian schemes could resolve this issue.

Overall, as there have been few significant incidents of fraud reported to date, ongoing efforts should be made to strengthen the system’s integrity and mitigate potential risks associated with fraudulent activities.

⁴⁸ Interim Audit Plan Endorsement, Exchange for Change, December 2022

⁴⁹ ACT CDS Annual Statutory Report, 2018-2019, 2019-2020, 2020-2021, 2021-2022, 2022-2023

⁵⁰ ACT CDS Annual Report 2018-19, 2022-23

Finding 7: The ACT CDS has demonstrated adaptability and resilience in effectively addressing a multitude of unique challenges.

Review of the scheme’s adaptability and resilience outcomes under the governance provisions of Part 10A.2 - .6

The ACT faces several unique challenges due to its geographic location and the socioeconomic demographics of its population. The territory is home to a relatively transient population given the number of universities and government employment contracts, and therefore requires continuous education initiatives to maintain public awareness and encourage participation in the CDS.⁵¹ The higher socioeconomic demographics of the ACT also pose a challenge, with less (proportional to household income) financial incentive for residents to redeem their containers and participate in the scheme.⁵² This is evident in the percentage of materials recovered through the MRF as compared to other jurisdictions (see Table 2.5).

	Collections through network return points	Collections through MRF
ACT (2022-23)	63%	37%
New South Wales (2021-22) ⁵³	80%	20%

Table 2.5: Comparison of NSW and ACT’s Collection rates through the network return points and MRF (kerbside recycling).⁵⁴

Despite this, the introduction of Re.Collect, a mobile collection service, has helped reduce barriers to participation by encouraging residents to source separate their materials at home and offering a convenient option for redemption. Mobile collection services further expand the reach of the scheme and are likely to improve accessibility and participation.

Infrastructure challenges also exist, as unlike other States and Territories, the ACT is land-locked with limited land and availability of greenfield sites restricting potential expansion to existing brownfield sites.⁵⁵ Despite this limitation, there is confidence that the current infrastructure is efficiently able to accommodate current volumes, as well as potential expansion into other material streams. Options are also being explored to utilise technologies to reduce or compact volumes at collection points to increase scheme efficiencies; it has been acknowledged that greenfield development is more costly than using existing infrastructure, which requires significantly less investment.⁵⁶ The terms of the Scheme Coordinator Agreement (under 64M of the legislation) outlines a three-plus-three-year extension period which creates some uncertainty for investment and may benefit from increasing the specified term/s to address this issue.

The ACT CDS demonstrated resilience when faced with a significant single point of failure risk with a fire at the Hume Material Recovery Facility (MRF) in December 2022 resulted in the facility being offline for four weeks. Contingency arrangements were quickly enacted, allowing materials to be temporarily stockpiled at the nearby Mugga Lane landfill until the materials were able to be transported to a nearby recycling processor in bordering NSW. Despite ongoing impacts from the fire, materials continue to come through the Hume MRF for sorting, showcasing the ongoing commitment of the scheme to ensuring its resource recovery objectives.

⁵¹ [Canberra Region Joint Organisation area](#)

⁵² Australian Bureau of Statistics (ABS) data reveals the significant majority of ACT is in the top quintile of its ‘Socio-Economic Indexes for Areas’ (SEIFA), a summary measure of the socio-economic conditions of an area using Census data. SEIFA combines income, education, employment, occupation, housing, and family structure to summarise the socio-economic characteristics of an area. [Socio-Economic Indexes for Areas \(SEIFA\), Australia 2021 \(arcgis.com\)](#)

⁵³ Return and Earn NSW Annual Statutory Report 2021-22 (Most recent published figures available)

⁵⁴ ACT CDS Annual Report 2022-23, Return and Earn NSW Annual Statutory Report 2021-22

⁵⁵ Building Canberra’s Circular Economy Draft ACT Circular Economy Strategy 2022-2025

⁵⁶ ACT Planning Strategy 2018

2.3 Opportunities

Stakeholder interviews consistently highlighted the need for continuous improvement, adaptation, and potential expansion of the ACT's CDS. There is general support for harmonisation with other jurisdictions to enhance efficiency of the scheme. The ACT's unique demographics and consumer behaviour necessitate a place-based approach when adopting learnings from other schemes. Interviews also identified increased redemption rates and participation as an area for improvement, potentially achievable through enhanced marketing and communication strategies. By examining and collaborating with neighbouring and global schemes, the ACT can leverage best practices to optimise the CDS.

Finding 8: After five years of operation, an opportunity presents itself to review the legislated objectives to drive further environmental and social outcomes beyond container recovery.⁵⁷

Consideration of the scheme's capacity to further achieve its objectives under Part 10A.1 Objects (including 64B-G Definitions)

Comparing the ACT to other jurisdictions, there is an opportunity to further environmental and social outcomes from the scheme beyond container recovery and incorporate these into the Act. Western Australia's CDS already reflects objectives that consider social impact benefits, such as those for social enterprise and communities, and South Australia has completed a review of the South Australia CDS, with stakeholder consultation recommending that the objectives be revised to consider references to:

- Resource recovery within a circular economy
- Revitalising community education on waste avoidance, resource recovery and recycling, and participation in the CDS
- Supporting employment and jobs.⁵⁸

Stakeholders consulted as part of this review hypothesised that many residents of the ACT are more motivated to recycle because of social and environmental values rather than collecting refunds, so aligning objectives with these values and more broader ACT government values is a possible consideration for future improvements.

⁵⁷ 20220330 - ACT Legislative Review Briefing Note-04_04_2024

⁵⁸ [WA Govt – Container Deposit Scheme \(home page\)](#), [Improving South Australia's Recycling Making Cents – Discussion Paper \(Sep 2021\)](#)

Finding 9: International schemes illustrate best practice in differing ways, presenting opportunities for improvement in overall recyclability and recovery outcomes as well as the impact of investing in convenience.

Consideration of opportunities for the scheme to increase capacity to further its objectives under Part 10A.1 and collection point KPI's are under 10A.4 Network Operator Agreement.

Recycling Outcomes

As the ACT CDS considers scheme expansion opportunities and enhanced tracking of environmental impact, it can learn from the Alberta (Canada) CDS's focus on recyclability. The Alberta CDS has a strong focus on recyclability alongside recovery, meaning they take an active role in pursuing a high "recyclability" rate for the collected containers.⁵⁹ Ideally this means can-to-can and bottle-to-bottle. Alberta has looked at the recyclability of each material stream, targeting the ability to accurately report on the amount of material entering recycling markets and has identified three tiers of recycling across these material streams. Alberta balances the recyclability rate with the total kilometres driven to get a more detailed picture of cost and environmental impact.

Resource Recovery Outcomes

Alberta also demonstrates how a focus on overall resource recovery allows the scheme to embrace its role in environmental stewardship. The Beverage Container Management Board (BCMB) regulates the Alberta CDS and sets requirements for depots receiving returned containers. BCMB states that "depots are agents for recycling – their goal is to protect the environment and keep beverage containers out of landfills".⁶⁰ Additionally, the Alberta Beverage Container Recycling Corporation (ABCRC) supports manufacturers in disposing of unused, defective, or off-spec beverage containers that have not been registered as part of Alberta's Common Collection System (96,391 kg in 2022) with no direct economic benefit attached for the scheme. This function of collecting ineligible containers to promote resource recovery could also be a consideration made by ACT when exploring future opportunities for scheme expansion and harmonisation as information gathered on ineligible containers collected provides useful insights and information on other types of containers to include in future iterations of the scheme.

The ACT CDS can apply learnings from these approaches to build awareness around how ineligible containers are handled in the territory. Stakeholders consulted as part of this review suggested two key aspects to be considered in parallel with any approaches to handling sources of ineligible containers. Firstly, they stated there is anecdotal evidence that automated collection points e.g., RVMs, may lead to some ineligible containers (rejected by the automated collection point) becoming litter and entering landfill, so the type of infrastructure may limit the capacity to collect ineligible containers. Secondly, any collection and processing of these ineligible containers should consider transparency about cost burden to navigate "free rider" assertions.

Convenience

As the ACT CDS considers improvements to participation rates it can look to schemes such as Finland where convenience has been a key success factor. Finland has around 4500 collection points at retailer locations and an additional 9000 HORECA (Hotels, Restaurants and Catering) recycling points. As a result of this expansive collection network, the population per collection point in Finland is roughly 10x lower than what is observed in Australia.⁶¹ There is both an operational opportunity for the ACT CDS to further engage with retailers or other collection points that enhance convenience for container deposits, as well as an opportunity to review the collection point KPIs enabled under divisions 10A.4 (Network operator agreement) and prescribed by the Regulation.

As another example of pursuing customer convenience, CDSs, including those found in Queensland and Victoria, have created applications for members that show their closest return point and other information, including eligibility scanners, transaction history and details on home collection.⁶²

⁵⁹ [ABCRC Leave No Trace Sustainability Report 2022](#)

⁶⁰ [BCMB – Depot Owners/Operators > Customers \(home page\)](#)

⁶¹ [ReLoop – Global Deposit Book 2022](#)

⁶² [Change starts with our app | Containers for Change](#)

Finding 10: Stakeholders identified a range of opportunities to optimise scheme operations and reporting.

Consideration of opportunities to improve scheme efficiencies and improvement in governance provisions under Part 10A.1 - .7.

Stakeholders consulted as part of this review indicated several areas for potential improvements to the ACT CDS. These include the following:

Applying the Correct Instruments

Stakeholders consulted suggested a review of the protocols between the Scheme Coordinator and the MRF should be considered. A contractual agreement with more clearly defined expectations and obligations could enhance the network arrangement and allow for more regular amendments when compared to a legislative instrument. A review could be considered with the ambition of protecting both the Scheme Coordinator and MRF and ensuring sufficient funding in the scenario of increased scheme volumes.⁶³

Data/Cyber Resilience

Cyber security is an important concern for the key scheme stakeholders. While the current approach to managing cyber security is aligned to relevant Australian standards, policies, and protocols, including the ACT Government Cyber Security Policy 2024, EfC recognised “the cybersecurity threat landscape is continually changing and becoming more sophisticated.”⁶⁴ The ACT Government is working closely with relevant scheme stakeholders in the ongoing process of strengthening and improving cyber security and cyber security responses.

Reporting Frequencies

While the Act does not specify the scheme reporting requirements except for the Scheme Coordinator annual report, both the Scheme Coordinator and the Network Operator have reporting requirements under their respective Scheme administrative agreements with the Territory. Reports are to be submitted on a weekly, monthly, quarterly, six-monthly, and yearly basis. The need for monthly and six-monthly reports is currently being reviewed under the provision of these agreements with the general view that less frequent reporting would reduce some of the administrative burden.

As per the Scheme Agreements, annual reports are to be submitted by the Network Operator and Scheme Coordinator 40 business days and 90 business days respectively after the end of the financial year. Section 64U of the Act requires the Scheme Coordinator’s annual report to be tabled in the Legislative Assembly within 3 months after the day the Minister receives the report. When evaluating potential efficiencies, it is important to consider the benefits in relation to the administrative burden created by the process. One alternative approach for consideration is obtaining approval from the Waste Manager and directly publishing the annual report on the ACT CDS website. This alternative process may provide a more streamlined and efficient way of sharing relevant information, while also ensuring transparency and accountability for the scheme’s performance.

Data Collection and Governance

ACT Government is looking at improving processes internally to embed a consistent methodology in data collection and storage for CDS scheme performance. Reviewing data guidelines and processes will help to ensure consistency, accuracy and accountability in data collection and reporting. To ensure a consistent and fit-for-purpose methodology, a review should consider creating data governance guidelines and document an agreed approach to the following: which data is collected, who is responsible, how it is collected, collection frequency, data normalisation, data storage and data access. What types of data collected may be revised according to any updated legislated objectives and associated KPIs.

Definitions

Under section 64B feedback has included potential opportunities to strengthen and clarify some of the definitions of this part:

Supply and Supplier: Feedback has suggested that harmonising this definition across the jurisdictions would simplify the administration and compliance burden for Suppliers.

⁶³ [Cyber Security Policy \(act.gov.au\)](#)

⁶⁴ ACT CDS Annual Report 2022-23

Contract Bottler: Currently the legislation does not specify whether contract bottlers are excluded or included in the Scheme. Feedback has suggested that harmonisation across jurisdictions would aid in simplifying and clarifying this definition.

Scheme Participants (Exporters): The definition of Scheme Participant does not currently include Exporters. Feedback suggests that a risk-based approach to determine the impact this has on net supply volumes and Scheme costs could benefit current processes.

Scheme Participants (MRF Operators): MRF Operators are not considered in the definition of Scheme Participants. Feedback suggests that this inclusion would benefit the scheme by strengthening and clarifying scheme governance and the application of the Scheme Coordinator Agreement.

Crushed Container Eligibility: The definition of Container in section 64E and requirements around collection of Containers in section 64Y could provide clearer guidance regarding the eligibility of crushed containers.

Container Requirements: Specifying requirements are not currently prescribed in the Regulation relating to barcodes or ring pull lids. Further clarity would assist in more accurate tracking of material and alignment with other jurisdictions.

Definition of a Container: The definition of a Container as prescribed under the Regulation may require an amendment if the scope of the scheme was expanded.

Definition of a Beverage: The definition of a Beverage as prescribed under the Regulation may require an amendment if the scope of the scheme was expanded.

Definition of Refund Marking: There is an opportunity to review the need for refund markings and labels if the Scheme is expanded to include all beverage containers.^{65 66}

Scheme Review and Continuous Improvement

Amending section 64ZC to require future reviews could provide opportunities to ensure that the effectiveness of the legislation continues to be assessed. For example, section 26 of the *Climate Change and Greenhouse Gas Reduction Act 2010* requires that this Act be reviewed after its fifth and tenth years of operation, and after each subsequent tenth year of operation. An ongoing provision for scheme review may have increased relevance in response to the proposed scheme expansion. However, the legislation does provide an avenue to ensure ongoing performance of various aspects of the scheme under section 64S – performance audit.

If considering the adoption of an ongoing review provision, consideration should also be given to the current requirement that a report of the review be presented to the Legislative Assembly within 3 months of commencement. A longer or more flexible period, such as 12 months or as soon as practicable, would allow a more thorough review process to be undertaken.

Section 64M, term of scheme coordinator agreement, identifies the term of the agreement between parties. It specifies that the term must not be longer than seven years, and with agreement of the scheme coordinator, the Minister may extend the term twice for a period of three years each. Consideration in future could be given to whether this is the optimum length for an agreement or whether this could be amended to increase the efficiency of these agreements.

⁶⁵ 20220330 - ACT Legislative Review Briefing Note-04_04_2024

⁶⁶ 20221125 ACT Statutory Review Feedback-04_04_2024

Finding 11: For participation rates to improve, a combined approach is needed that considers infrastructure deployment alongside community engagement and education.

Consideration of opportunities to improve scheme objectives under Part 10A.2 - .7.

Stakeholder interviews suggested that for participation rates to increase, infrastructure improvements and behavioural change need to go hand-in-hand.

While infrastructure development in the ACT has geographical limitations (including predominantly brownfield sites and a restricted volume of suitable properties for typical depots), stakeholders still see opportunities to improve convenience and return point infrastructure:

- Consider small format, fully automated centres requiring a reduced footprint
- Building on the scheme's 'Drop & Go PODS' model, the ACT could build on current engagement with retailers and explore further deployment of return points at high footfall zones in which consumers typically drive to (e.g., service / petrol stations and supermarkets).

Education, including around simplifying what the network return points will accept, is also seen as a critical component for increased participation. Furthermore, there is an opportunity to build on insights from the Heads of Environment Protection Authority's CDS Behaviour Change National Research study to understand the key drivers and enablers of behavioural change in relation to scheme participation in the specific context of the ACT.⁶⁷ In order to gain deeper insights into consumer behaviour, particularly around purchasing habits, stakeholders emphasized the value of engaging with retailers. Retailers possess significant volumes of data that can shed light on these trends.

A key theme to promote improved participation rates in the CDS program is the ongoing education of communities about the impact depositing containers at return points has on resource recovery and the associated environmental benefits. Embedding new recycling behaviours is seen as a long-term cycle, and so engagement and education plans should reflect this.

⁶⁷ [EPA SA – HEPA – Behaviour Change National Research Report \(Nov 2023\)](#)

Finding 12: There are opportunities to enhance and expand the scheme to further serve circular economy ambitions.

Consideration of opportunities to improve scheme objectives under Part 10A.1.

Legislated Objectives

Stakeholders consulted as part of this review stated that expanding the scheme’s goals by considering social and environmental benefits as well as product stewardship, could better align with models in Queensland and Western Australia and progress circular economy ambitions.⁶⁸

Scheme Expansion

Consultation on the proposed expansion of eligible containers in 2023 indicated broad support of the expansion from the ACT community, with 91% in favour of expanding the scheme in any scope.⁶⁹ Potential scheme expansion is front-of-mind for those involved in the administration and operation of the ACT CDS. Any possible expansion can advance circularity through improving resource recovery outcomes for higher volumes of materials. Leveraging the broad support for expansion, and learning from other schemes’ experience such as Queensland, are factors to consider.⁷⁰

Pricing per Container Type

Adjusting pricing structures, such as through eco-modulation, to set a price in line with environmental impact per material could improve the cost-recovery model and incentivise the use of more recyclable materials. A recent LCA suggested that out of all the eligible material types, the largest net environmental benefits are seen for aluminium, yet Figure 2.8 below illustrates how aluminium typically incurs the highest scheme pricing per container by material type.⁷¹

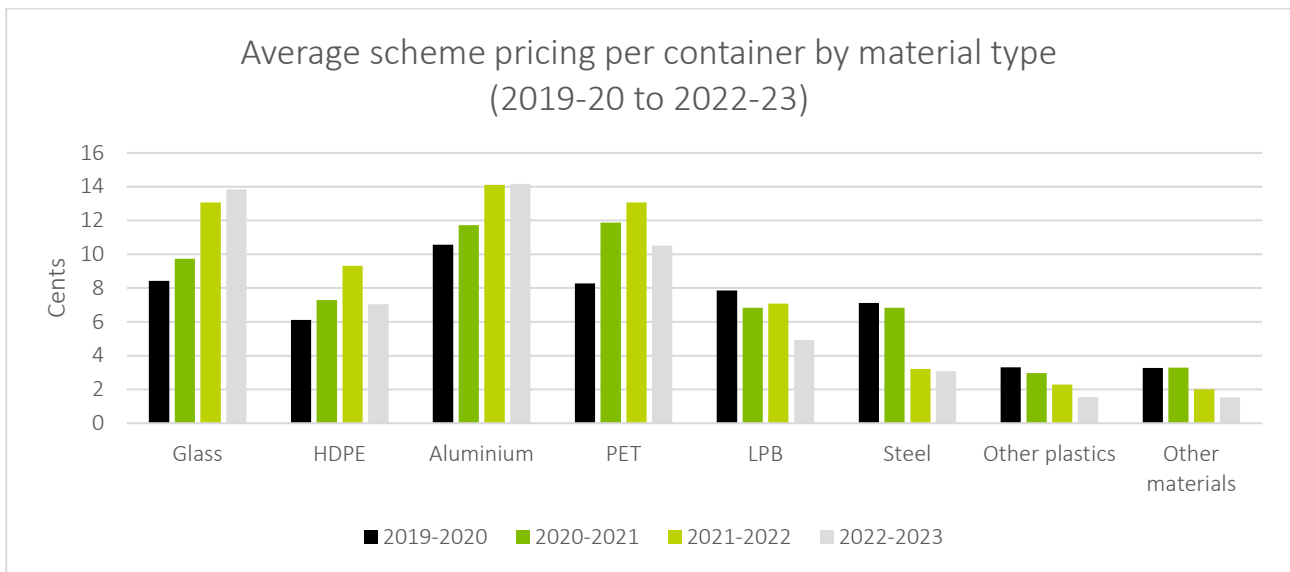


Figure 2.8: Average scheme pricing per container by material type, excluding 2018-19 data which was not readily available.⁷²

⁶⁸ 20220330 - ACT Legislative Review Briefing Note-04_04_2024

⁶⁹ ACT Container Deposit Scheme expansion YOURSAY responses

⁷⁰ [Queensland Govt. – Containers for Change > Expanding the container refund scheme \(home page\)](#)

⁷¹ [Life Cycle Assessment of the ACT Container Deposit Scheme](#)

⁷² CDS 5-year data summary (ACT NoWaste)

Finding 13: Considerations for scheme harmonisation may benefit from leveraging short-term opportunities in a staged approach.

Consideration of opportunities to improve scheme objectives under Part 10A.1.

Stakeholders consulted indicated support for harmonisation, while recognising the complexity of some of the challenges to harmonise at a national level. Whilst opportunities for harmonisation are likely to be national initiatives, and in some cases may already be under active review, some were identified by stakeholders consulted in the ACT as more feasible in the short-term:

- A single 'point-of-entry' portal to reduce the burden on suppliers and improve efficiencies
- Harmonised first supplier definitions for clearer supplier requirements and obligations

Stakeholders also mentioned that the ACT is a lower-risk environment compared to other states and territories, enabling potential experimentation with the effects of changing the refund value, so long as this is performed in sync with the NSW CDS to avoid incentivising fraudulent behaviour.

There is mutual support amongst scheme participants for full harmonisation of Australian schemes in the future but recognition that this harmonisation will require broad and coordinated implementation.

3 Conclusion

The review of the ACT's Container Deposit Scheme (CDS) has found that the scheme is performing well and is operating in line with its legislative objectives. The ACT CDS has established a cost-effective scheme which enhances resource recovery and has achieved significant outcomes since its launch. With over 473 million eligible containers redeemed, the scheme has been found to reduce litter in the ACT, implemented and established extended producer responsibility (EPR) principles, and promoted improved recycling and resource recovery outcomes compared to kerbside collection pathways. By reducing contamination in recovered material streams and thereby producing higher quality recyclate, the ACT CDS contributes to the growth of the circular economy and reduces reliance on virgin materials.

Throughout the review process, key stakeholders expressed support for harmonisation of schemes at a national level to streamline processes and ensure consistency across jurisdictions. While full harmonisation will require significant coordination, cost, and time investments, there are immediate opportunities to enhance efficiencies and reduce administrative burdens for suppliers.

This review has identified areas for potential further development and improvement. These include enhancing data collection and governance, strengthening cybersecurity resilience, and reviewing reporting for consistency and efficiency. Additionally, expanding the current legislated objectives and prioritising convenience to suppliers and consumers can drive higher participation and redemption rates to further improve social and environmental outcomes.

Potential changes for consideration include expanding the objects of part 10A to include broader circular economy outcomes achieved by the CDS. Some definitions could be clarified or altered to support changes such as a scheme expansion. Alternatives to the requirement in section 64U(2) for the scheme coordinator to present an annual report to the Legislative Assembly could be reconsidered now that the scheme has been shown to be operating effectively. The requirement to review the legislation under section 64ZC could be extended to require further reviews in future. The potential changes outlined may support the operation of the CDS as the scheme moves from implementation towards maturity.

The ACT CDS has the potential to catalyse a more circular economy across the ACT including opportunities to leverage knowledge and processes from the scheme to potentially expand redemption capabilities to other container sizes and types, other material types, and increase accessibility to high-quality materials for reuse and recycling. This would further contribute to waste reduction and resource recovery efforts in the ACT.

While this review has highlighted opportunities for further improvements and provided actionable insights related to the performance and potential of the CDS, there is scope for the ACT Government (and ACT NoWaste) to further explore these findings in the future. This will allow for a more comprehensive understanding of the scheme's impact and provide opportunity to strengthen its efficacy, effectiveness, and efficiency.

Overall, the review affirms the success of the scheme in achieving its goals. By building on its positive performance since 2018 and addressing the identified areas for improvement, the scheme can continue to make significant contributions to waste management, resource recovery, and the advancement of a sustainable and circular economy in the ACT.



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