

Public Consultation on Proposed Beverage Container Return Scheme



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Aim

The National Environment Agency (NEA) would like to seek views from the public on the proposed beverage container return scheme (“Scheme”), which was first proposed by the Citizens’ Workgroup on #RecycleRight in 2019.

Under the proposed Scheme, a small deposit will be applied to metal and plastic beverage containers when consumers buy a pre-packaged beverage. Consumers can then claim a refund of their deposit by returning their empty beverage container to a return point.

This public consultation outlines the proposed Scheme and invites views from the public, particularly on the **type of beverage containers to be covered, deposit amount, and return point locations.**

Background

Reducing waste generation and increasing recycling are key priorities for Singapore. They reduce carbon emissions, save on finite natural resources, and extend the lifespan of Semakau Landfill, Singapore's only landfill. The Zero Waste Masterplan¹ and Singapore Green Plan target to reduce waste sent to landfill per capita per day by 30 per cent by 2030², and to increase the national recycling rate to 70 per cent by 2030.

Packaging waste, including plastics, has high generation volume and low recycling rates. About a third of domestic waste disposed of is packaging waste, and about 60% of this is plastic waste. In 2021, only 6% of plastic waste disposed of was recycled.

A beverage container return scheme aims to increase recycling, in line with Singapore's move towards zero waste. About 50 jurisdictions have implemented such a scheme (commonly known as 'Deposit Refund Scheme'), including Norway, Germany, Croatia, and Australian states such as New South Wales and Western Australia. Upon implementation, many have seen return rates for beverage containers increase significantly, to as high as over 80 per cent. In Lithuania, a similar scheme was implemented in 2016 and a return rate of 92 per cent was achieved by the end of 2017.

The Scheme will be the first phase of an Extended Producer Responsibility (EPR) approach to manage packaging waste. EPR frameworks aim to make producers (includes manufacturers and importers) responsible for the collection and end-of-life management of the products they put on the market. The EPR for managing electrical and electronic waste was introduced in July 2021 which was the first EPR framework implemented in Singapore.

How does the beverage container return scheme work?



The Scheme involves consumers paying a small deposit which is added to the price of pre-packaged beverages upon purchase. The deposit amount in overseas schemes with high return rates, such as Norway, Lithuania and Germany, generally ranges from about S\$0.10 to S\$0.40 per container³. Assuming that the deposit amount is set at S\$0.10 per container, for a S\$1.00 canned drink, consumers will pay S\$1.10 (S\$0.10 + S\$1.00).

The full deposit amount (e.g., S\$0.10) will be refunded to consumers when they return the empty beverage container to designated return points. Eligible containers can be deposited into a Reverse Vending Machine (RVM) or returned over-the-counter (e.g., via a cashier). For convenience, return points are generally located at retail outlets and community spaces.

Under this Scheme, beverage producers (includes manufacturers and importers) will pay for and/or run the collection and recycling of used beverage containers. The list of key stakeholders involved in the Scheme and their roles are in **Appendix A** and **B**.

Why implement a beverage container return scheme?

The Scheme will be implemented alongside existing recycling initiatives such as the National Recycling Programme (NRP), and aims to:

- a. Increase the recycling rate of beverage containers and reduce the amount of waste disposed of as well as carbon emissions; and
- b. Raise consumer awareness on the importance of 3Rs (i.e., Reduce, Reuse, Recycle) and encourage good recycling practices.

With a deposit in place, the Scheme will encourage consumers to return their empty beverage containers for recycling. This will divert waste from landfill, reduce carbon emissions and extend the lifespan of our landfill beyond 2035. The Scheme will also aggregate clean and high-quality recyclables which can be made into new products. This allows resources to be used for as long as possible and enables a circular economy while contributing to carbon mitigation. By increasing the supply and quality of recyclables collected, it is also envisaged that the Scheme will be conducive to the development of Singapore's recycling industry.

Consultation conducted to date

The Scheme was an idea proposed by the Citizens' Workgroup on #RecycleRight in 2019 to increase household recycling rates and reduce contamination in the recycling bins. Following the Workgroup's recommendation, a survey of 1,000 households was conducted in early 2021, and around 8 in 10 respondents were generally supportive of implementing the Scheme to encourage recycling of beverage containers. The implementation of the proposed Scheme was first announced at the 2020 Committee of Supply (COS) debates.

Since 2020, NEA has been consulting various stakeholders to co-develop a scheme that is suitable for our local context. This includes engagements with over 250 beverage producers that make up about 90 per cent of market share, and more than 20 retailers that operate about 80 per cent of all large supermarket outlets. Other stakeholders consulted included waste management companies, environmental groups and members of the public. Engagements were conducted through dialogues, industry briefings, focus group discussions and surveys. Views and feedback from these engagements were carefully considered in the development of the proposed Scheme. NEA has also considered learning points from the Recycle N Save initiative, jointly launched by F&N and NEA in October 2019, where Reverse Vending Machines were deployed at various locations in Singapore.

NEA also formed a Stakeholder Group in December 2021 to facilitate the development of the Scheme. The Group comprises members from industry, academia, and non-governmental organisations (NGOs). The list of members is in **Appendix C**.

A summary of the key findings from NEA's past consultations is in **Appendix D**.

When will the Scheme be introduced?

We hope to implement the Scheme by mid-2024. A grace period will subsequently be provided for producers and retailers to clear existing stock and ensure all covered pre-packaged beverages comply with the necessary requirements (e.g., have deposit marks and barcodes).



What containers will be included under the Scheme?

Container material types

The container material types covered by similar schemes in other jurisdictions include metal cans, plastic bottles, beverage cartons and glass bottles.

Examples are at **Appendix E**.

While almost all overseas schemes include metal cans and plastic bottles, the inclusion of beverage cartons or glass bottles is not as consistent amongst schemes abroad. The transport and processing costs of glass are higher due to its weight. Including glass bottles and/or beverage cartons would also add complexity to collection logistics and infrastructure. For example, larger Reverse Vending Machines (RVMs) with more capabilities would be needed to accept, sort and compact the additional materials.

In Singapore, an estimated 660 million metal cans, 390 million plastic bottles, 340 million beverage cartons, and 100 million glass bottles were used in 2020⁴. Based on feedback from focus group discussions⁵ and a dialogue session⁶, most participants generally agreed to include metal cans and plastic bottles due to the ease of recovery and large quantities supplied. **Taking into consideration feedback from NEA's consultations and engagements, it is proposed for metal cans and plastic bottles to be included due to their high material value and high level of consumption, as well as the ease of collection and compaction. Beverage cartons and glass bottles could be considered in a later phase.**



Types of beverages

Schemes in other jurisdictions typically include a wide range of beverage types to minimise public confusion and maximise the amount of containers collected for recycling, as shown in **Appendix E**. However, certain beverage types are excluded in some jurisdictions, for example milk/dairy products and/or milk/dairy substitutes⁷, and wine and spirits⁸.

Nonetheless, **to avoid consumer confusion and maximise the potential number of containers (of any in-scope material types) collected for recycling, it is proposed that the Scheme covers all pre-packaged beverages⁹ (including beer, concentrate, fruit juice, milk/dairy, soft drinks, spirits, water, and wine).**

At the dialogue session⁶, more than half of the participants agreed to include all beverage types. Sanitation (e.g., hygiene, odour) and quality (e.g., due to residues) issues could be mitigated through frequent collection of the beverage containers, maintenance of the RVMs, consumer education and washing during the recycling process. With the proposed exclusion of beverage cartons and glass bottles from the Scheme, a significant number of containers with milk/dairy (or substitutes), or wine and spirits will not be covered.



Metal can
(e.g. beer, soft drinks)



Plastic bottle
(e.g. soft drinks, energy drinks, water)



Glass bottle
(e.g. beer, wine, spirits, soft drinks)



Beverage carton
(e.g. juice, milk & dairy alternatives)

Sizes of containers

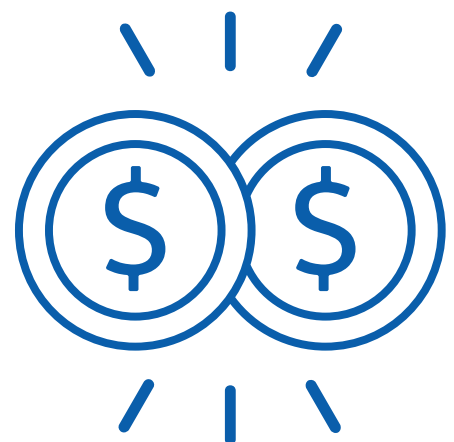
A scheme covering a wide range of container sizes can contribute to high recycling volumes. **As typical RVMs would not be able to accept containers that are too large or too small, it is proposed that the Scheme includes containers that are 150ml to 3 litres**, similar to schemes in the Australian states such as New South Wales, Queensland and Western Australia.

How much will the deposit be?

The deposit amount in overseas schemes with high return rates, such as Norway, Lithuania and Germany, generally ranges from about S\$0.10 to S\$0.40 per container³. This could either be a flat amount for all beverage containers or a variable amount depending on the size or material of the container. A flat rate has been implemented in some of the major schemes to simplify the scheme for consumers and retailers, as well as for the administration and accounting of deposits. Examples of deposit amounts in overseas schemes are in **Appendix E**.

The deposit amount is generally set at a level that would encourage consumers to return beverage containers. Higher deposit amounts are associated with higher return rates.

The survey conducted in early 2021 indicated that the deposit amount should not be too high to discourage consumers from buying the beverage, and yet not too low such that it would not incentivise consumers to return the empty beverage containers. Based on the feedback from focus group discussions⁵ and a dialogue session⁶, most participants felt that **a deposit amount of S\$0.10 to S\$0.20 per beverage container would be reasonable to motivate return for recycling. A flat deposit amount is proposed for all beverage containers.**



How will I know if a beverage container is covered under the Scheme?

To help consumers identify containers covered under the Scheme, beverage containers must be labelled with a **deposit mark**. Otherwise, refunds could be wrongly claimed on beverage containers where a deposit was not paid in the first place, such as those bought overseas. The deposit mark will also facilitate the return of containers at manual return point locations. Examples of deposit marks in overseas schemes are in **Appendix E**.

In addition, **barcodes** for pre-packaged beverages must be registered with the Scheme Operator and are scanned by RVMs to identify eligible containers. This will enable the Scheme Operator to track the numbers and types of containers covered under the Scheme to guard against consumers or other parties claiming a refund of the deposit when the deposit was not paid in the first place (e.g., a beverage container bought in another country). A Singapore-specific barcode, unlike regional or international barcodes, will further prevent containers bought outside of Singapore from being accepted. This reduces the risk that containers bought in other countries are imported deliberately to claim deposit refunds, hence raising the costs of the Scheme.

It is proposed that a Singapore deposit mark be mandated to help consumers identify deposit-bearing containers. Singapore-specific barcodes are encouraged but would not be mandated so as to provide some flexibility for producers that use regional or international barcodes. However, the Scheme Operator may set higher fees for producers that use international barcodes, to account for potential losses to the Scheme from cross-border fraud.

For small-volume items, producers may opt to use stickers instead of printing the deposit mark and barcode on their containers.

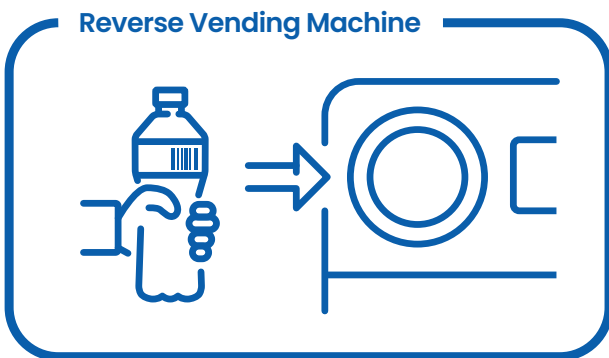


Where do consumers return the beverage containers?

Consumers can return empty containers and claim the deposit refund at designated return points. To encourage return, we will need an extensive collection network that is convenient and easily accessible to consumers. However, a larger collection network would increase the set-up and operational costs, as well as the logistics costs of collecting and transporting returned containers. As such, we would need to balance between providing easy access to consumers with more return points and the higher scheme cost of more points.

Return points could be manual (e.g., return over-the-counter) or automated by RVMs as illustrated below. Some jurisdictions also set up redemption centres which allow for the return of a large number of containers at one go. Compared to manual returns, automated returns by RVMs are more efficient with less risk of error or fraud.

Types of Return Points



Returning empty beverage containers via automated return to get the deposit back



Returning empty beverage containers via over-the-counter manual return to get the deposit back



Returning a large number of beverage containers (e.g., >50 beverage containers) at once to a redemption centre (automated return) to get the deposit back



In many schemes in other jurisdictions, such as Norway and Lithuania, retail outlets that sell beverage containers are mandated to set up return points (either large retail outlets above a certain floor area threshold or all retailers of pre-packaged beverages), as shown in **Appendix E**. This is in recognition that retailers have some responsibility for placing packaging on the market and are, in some cases, beverage producers themselves.

For Singapore, it is proposed that large supermarkets¹⁰ with a total floor area of >200m² be mandated to set up return points. Based on the survey conducted with 1,000 households, supermarkets were among the most preferred return location across all the age segments. Further, supermarkets are a major sales channel, accounting for about one-third of pre-packaged beverages sold in Singapore. Smaller retailers would not be mandated but can volunteer to do so. Additional return points would be set up at other locations in the community (e.g., Community Clubs, Town Centres and sport facilities) to increase accessibility. Return points will be paid handling fees by the Scheme Operator to compensate for costs incurred such as RVM operational and maintenance costs, retail and storage space, as well as manpower to assist with the collection.

Online retailers in some overseas schemes have also begun to take back empty containers and return consumers' deposits. For example, in Norway, consumers can buy special bags from their online retailer which are picked up with the beverage containers inside when the next delivery is made. NEA will monitor developments and study how e-commerce retailers can be involved in the Scheme.

How will consumers be refunded?

Consumers can claim the deposit when they return the empty containers (intact, with a readable barcode) to designated return points. In overseas schemes, there is no expiry to the deposit refund. The mode of payment may differ depending on the return points/collection methods.

The possible deposit refund options include:

- a. Electronic transfer: Consumers receive the deposit through electronic transfer (e.g., payment to EZ-link card, NETS FlashPay card, bank transfer or other apps such as PayNow and PayPal);
- b. Cash/cash voucher: Consumers receive the deposit in cash for over-the-counter returns, or receive a cash voucher from an RVM which can be redeemed for cash or used to offset purchases in stores; or
- c. Donations to charity.

Based on the survey conducted earlier, cash and electronic transfer were the most preferred refund options.



Who will administer the Scheme?

In overseas schemes, all producers of pre-packaged beverages (i.e., manufacturers and importers) will be legally responsible for collecting and recycling used beverage containers. They typically rely on a Scheme Operator to comply with the obligations. This means that they would register as member and pay fees (per container placed on the market) to the Scheme Operator to collect and recycle beverage containers on their behalf. The producers would need to register their products with the Scheme Operator.

The Scheme Operator will manage the operations of the Scheme, including collection of used beverage containers, collection and refunding of deposits and setting fees, as detailed in **Appendix B**. All beverage containers collected under the Scheme will be sent to licensed recovery facilities (e.g., recyclers).

Closing the resource loop for beverage containers

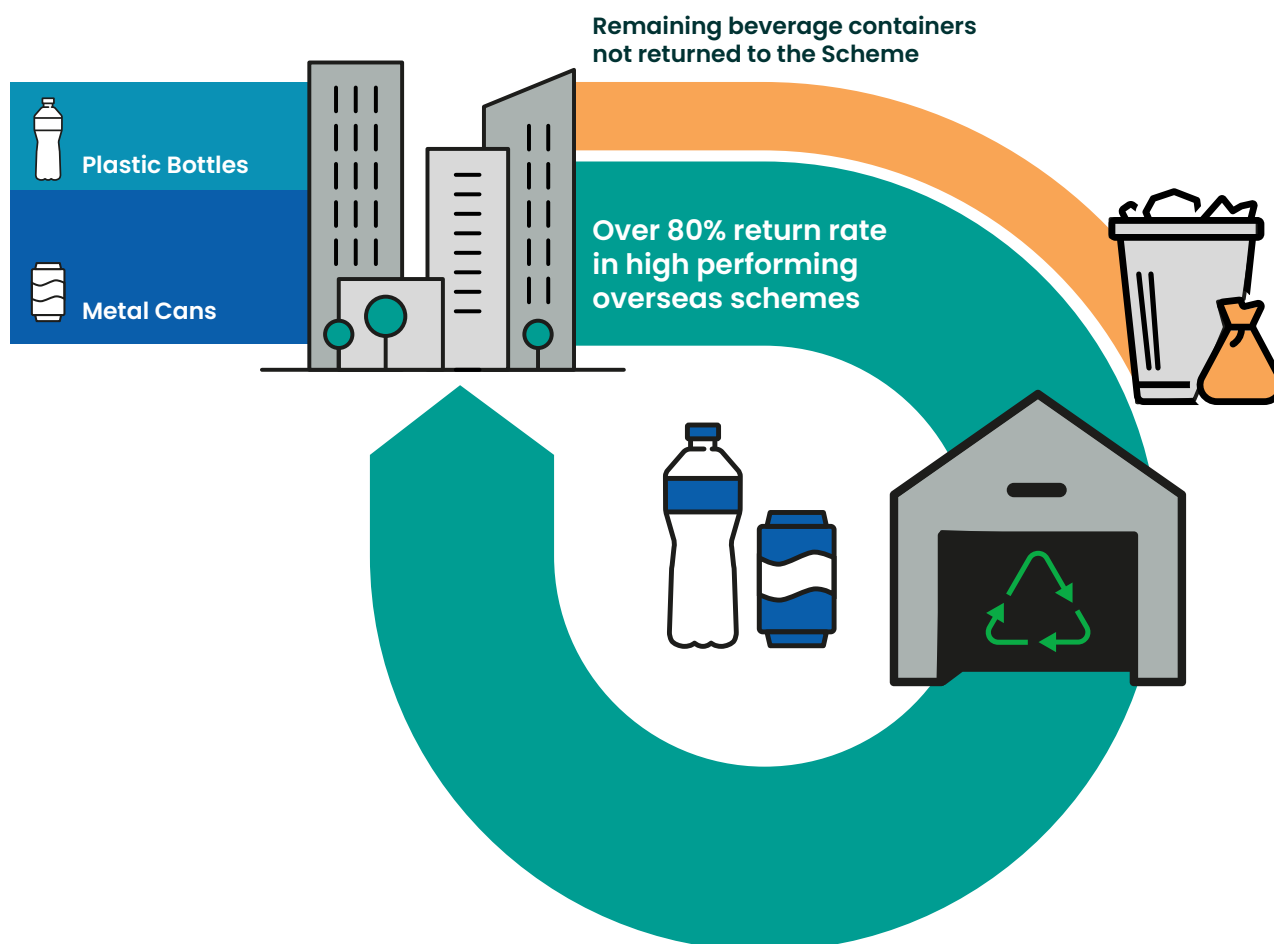


Establishment of Scheme Operator

In overseas schemes, the Scheme Operator could be a third party appointed by the Government such as through a tender or formed by industry players and directly licensed by the Government. Many Scheme Operators formed by industry are either solely owned by the producers or are a joint ownership between the beverage and retail associations. Examples of the establishment of Scheme Operators in other jurisdictions are in **Appendix E**.

For Singapore, and based on best practices around the world, a single, not-for-profit, industry-led Scheme Operator is preferred to minimise costs and promote accountability as well as efficiency.

The Scheme Operator will be required to achieve a return target¹¹ set by NEA, and report annually on its operations and performance. NEA will provide regulatory oversight and monitor compliance.



Submission of views

NEA would like to seek views from the public on the proposed Scheme framework, particularly on the type of beverage containers to be covered, deposit amount and return point locations.

Please share your views and feedback with us via the online survey form uploaded at <https://go.gov.sg/nea-bcrs-survey>. The closing date for the submission of views and feedback is **14 October 2022 (Friday)**.

To ensure that the consultation is meaningful, productive and focused, respondents are requested to observe the following guidelines when providing feedback:

- a. Identify yourself so that we may follow up with you to discuss your views, if necessary.
- b. Be clear and concise in any comments.
- c. As far as possible, substantiate your points with examples, data or alternative suggestions.

All responses received by the closing date will be considered and will aid the development of a Scheme suitable for Singapore's context. A summary of responses will be published thereafter.



Appendices



Appendix A – Key stakeholders in the Scheme

| Stakeholders | Typical Definition |
|--|---|
| Producers | <p>“Producers” refer to any natural or legal persons who supplies regulated goods in Singapore; including parties which:</p> <ul style="list-style-type: none"> i. manufacture, under its own brand, covered products for sale in Singapore; ii. sell, under its own brand name, covered products produced by other suppliers iii. import covered products on a commercial basis into Singapore; or iv. supply covered products directly to the Singapore market by distance selling. |
| Scheme Operator | <p>“Scheme Operator” refers to a licensed organisation that administers the scheme and organises collection and recovery (i.e., recycling) of used beverage containers for producers. They collect data, submit relevant information to the agency on behalf of member producers and manage the scheme finances.</p> |
| Distributors/ Retailers | <ul style="list-style-type: none"> • “Distributors” or “retailers” refer to any natural or legal person who sells covered products to consumers in Singapore through any means, including distance selling. • A distributor or retailer will also be classified as a producer if it imports and sells covered products for which there is no registered producer. • “Retailers” can function as “Return Point Operators” as well. |
| Return Point Operators | <p>“Return Point Operators” refer to any entity operating as return points for used beverage containers with deposit refunds. The return points can be unmanned or manned.</p> |
| Collectors | <p>“Collectors” refer to any entity involved in the provision of logistics and transportation services for the used beverage containers from the various return points to designated locations for recovery.</p> |
| Operators of recovery facilities (e.g. recyclers) | <p>“Operators of recovery facilities” refer to any premises used for the sorting, segregation, processing or management of used beverage containers for the primary purpose of recycling.</p> |
| Consumers | <p>“Consumers” pay a deposit when they buy pre-packaged beverages and receive a deposit refund when they return used beverage containers at designated return points.</p> |

Appendix B – Responsibilities of key stakeholders

| Stakeholder | Main Responsibilities |
|---|---|
| Ministry of Sustainability and the Environment (MSE) / National Environment Agency (NEA) | <ul style="list-style-type: none">• Set legislation for the Scheme• Set return target(s)• Set recycling target(s) and/or guidelines• Raise awareness of the Scheme• Regulate Scheme Operator and operators of recovery facilities (e.g., recyclers)• Enforcement• Audit all stakeholders |
| Producers | <ul style="list-style-type: none">• Potentially form a Scheme Operator• Register and engage the services of a Scheme Operator• Report products placed on the market (PTM) and relevant information to Scheme Operator• Pay Scheme Operator for services rendered through producer fees• Place required identifier on beverage containers• Pay Scheme Operator deposit for each product PTM• Collect deposit amount from distributor, retailer, or consumer who purchases covered pre-packaged beverages |

Appendix B – Responsibilities of key stakeholders (continued)

| Stakeholder | Main Responsibilities |
|------------------------|---|
| Scheme operator | <ul style="list-style-type: none">• Adhere to regulatory requirements• Register member producers (e.g., importers and manufacturers) of pre-packaged beverages• Report covered pre-packaged beverages PTM and relevant information to NEA, on behalf of producers• Keep records of pre-packaged beverages PTM by producers and amount (in terms of units/tonnage) of used beverage containers collected and recycled from data submitted by relevant parties, as well as verifying these data• Maintain confidentiality of information including those collected from producers• Set and collect producer fees to fund services provided and manage billing system• Collect appropriate deposits from producers for each pre-packaged beverage PTM• Develop and implement programmes for the collection, counting and recovery of covered used beverage containers• Set up return points (e.g., at retail points, bulk collection centres, RVMs), including working with return point operators to meet requirements on the operations of collection/return points• Facilitate collection of used beverage containers and refund of deposits through return points, according to number of units collected• Reimburse return points for deposit refunds and pay handling fees to compensate for the costs they incur• Communicate with various stakeholders, including the public, on relevant information (e.g., public education) pertaining to the Scheme, and manage stakeholder feedback and complaints• Ensure all used beverage containers collected are properly recovered (e.g., transported to licensed recyclers)• Fulfil return and/or recycling target(s)• Audit producers, return points and recyclers• Keep up to date on new collection and recovery solutions |

Appendix B – Responsibilities of key stakeholders (continued)

| Stakeholder | Main Responsibilities |
|------------------------------------|--|
| Distributors/ Retailers | <ul style="list-style-type: none">• Pay producers deposit for each pre-packaged beverage supplied through their distribution/retail channels• Collect deposit from the consumers for each unit of pre-packaged beverages sold on top of retail price• Keep records of deposit paid and collected corresponding to the pre-packaged beverages PTM• Provide information about the Scheme such as deposit amount and mechanism for returning used beverage containers for consumers to claim back deposit• Ensure pre-packaged beverages sold comply with regulations |
| Return Point Operators | <ul style="list-style-type: none">• Provide collection of used beverage containers (e.g., through placement of RVMs, over-the-counter collection), with refund of deposits (subsequently reimbursed by the Scheme Operator)• Keep records of used beverage containers collected, and deposit refunded• Manage used beverage containers collected such as storing them prior to collection by appointed/licensed collectors and ensuring these used beverage containers are not used for refund of deposit again• Meet requirements on the operations of collection/return points such as service delivery, maintenance, cleanliness |

Appendix C – Stakeholder Group members

| S/N | Name | Designation | Organisation |
|-----|--|--|--|
| 1 | Mr Cheang Kok Chung (Co-Chairperson) | Group Director (Resource & Sustainability Group) | National Environment Agency (NEA) |
| 2 | Mr R. Raghunathan (Co-Chairperson) | CEO | WWF Singapore |
| 3 | Mr Matt Kovac | CEO | Food Industry Asia (FIA) |
| 4 | Ms Susan Chong | CEO | Greenpac (S) Pte Ltd |
| 5 | Dr Shirley Ho* | Professor | Nanyang Technological University (Wee Kim Wee School of Communication and Information) |
| 6 | Dr Jia Lile | Associate Professor | National University of Singapore |
| 7 | Dr Seeram Ramakrishna | Board Member | Plastic Recycling Association Singapore (PRAS) |
| 8 | Mr Andy Hewson | President | Singapore Beer Industry Association (SBIA) |
| 9 | Ms Jen Teo | Executive Director | Singapore Environment Council (SEC) |
| 10 | Mr Allan Tan | Emeritus President | Singapore Food Manufacturers' Association (SFMA) |
| 11 | Mr Cheong Chung Kin | Chairman (Food & Beverages Industry Group) | Singapore Manufacturing Federation (SMF) |
| 12 | Ms Rose Tong | Executive Director | Singapore Retailers Association (SRA) |
| 13 | Mr Matt Stanelos | Vice-Chairman | Waste Management and Recycling Association (WMRAS) |

* From December 2021 – March 2022

Appendix D – Key findings from NEA’s past public consultations and engagements

Consumption patterns

- 57 per cent of households surveyed consumed beverages from plastic bottles at least once a week. The corresponding percentage for other container types was 49 per cent for beverage cartons, 29 per cent for metal cans, 22 per cent for packet drinks, and 7 per cent for glass bottles.
 - Amongst specific drink types, 56 per cent of households consumed milk at least once a week, and 4 per cent consumed wine/spirits at least once a week.
-

Recycling habits

- 59 per cent of households surveyed recycled beverage containers.
 - Out of the households that did not recycle beverage containers, 40 per cent cited habit-related reasons, while 43 per cent cited convenience-related reasons for not recycling.
-

Deposit amount

- A deposit amount of S\$0.10 to S\$0.20 per beverage container would be a reasonable range.
 - The deposit value should not be too high such that it deters consumers from buying, and not too low such that there is no motivation to return. S\$0.10 was acceptable to all participants at the dialogue session⁶ and an amount lower than S\$0.10 would be too low to incentivise return. A higher deposit of S\$0.20 would more likely achieve the intended outcomes and was acceptable to most participants.
 - Glass and larger containers perceived as inconvenient and effortful to return for deposit.
 - Flat deposit is administratively easier to manage and communicate to the public
-

Refund locations

- Supermarkets, convenience stores, and common spaces in residential estates were the most preferred refund location across all the age segments.
 - Schools and petrol stations were the least preferred refund locations.
-




Refund options

- Younger respondents (18 – 39 y.o.) prefer electronic payment methods such as PayNow, physical cash and direct bank transfer as the return methods.
 - Older respondents (> 40 y.o.) prefer physical cash and direct bank transfer, and also EZ-Link card.
 - E-wallet credits such as Grab wallet is the least preferred among all age segments.
 - Cash is seen as the most convenient and inclusive refund option, while EZ-Link/ Cashcard top ups were perceived as the most accessible cashless refund modes.
-



Support for scheme

- 78 per cent of surveyed respondents were generally supportive of implementing the Scheme to encourage recycling of drink containers. 12 per cent were neutral, 10 per cent were generally not supportive.
-

Appendix E – Schemes in other jurisdictions

| | Sweden | Finland | Norway |
|--|---|--|---|
| Year implemented | 1984 | 1996 (cans), 2008 (PET), 2012 (glass) | 1999 |
| Return Rate | 85% | 94% (metal cans) 92% (plastic bottles) 87% (glass bottles) | 92% |
| Scheme Operator | Single, not-for-profit scheme, formed by beverage and retail industry | Single, not-for-profit scheme, formed by beverage and retail industry | Single, not-for-profit scheme, formed by beverage and retail industry |
| Type of containers covered | Plastic bottle, metal can | Plastic bottle, metal can, glass bottle | Plastic bottle, metal can |
| Type of beverages covered | All except drinks that contain >50% dairy products and vegetable/fruit/berry juice. Since 2018, juice manufacturers can voluntarily join the scheme | All except milk | All |
| Deposit amount (PPP-adjusted)³ | Vary with size. S\$0.10 – S\$0.20 | Vary with material and size. S\$0.10 – S\$0.41 | Vary with size. S\$0.18 – S\$0.27 |
| Deposit mark |  ¹² |  ¹³ |  ¹⁴ |
| Retailers mandated to operate return points | No but it is a 'return to retail' system | Yes | Yes |
| Return points¹⁵ | ~14,000 return points; 30 deposit return banks (Pantamera Express). Return point locations include supermarkets, small cafes, restaurants and airports. | ~14,000 return points (5,000 at retail outlets and 9,000 at HORECA) with ~4,000 RVMs. Return point locations include any retail outlet that sells deposit-bearing beverages. | ~15,700 return points (3,700 automated and 12,000 manual). Return point locations include any retail outlet that sells deposit-bearing beverages. |

Appendix E – Schemes in other jurisdictions (continued)

| | Germany | Lithuania | New South Wales, Australia |
|--|--|--|--|
| Year implemented | 2003 | 2016 | 2017 |
| Return Rate | 98% | 92% | 70% (52% excluding kerbside) |
| Scheme Operator | Multiple scheme operators with a single, not-for-profit system administrator, formed by beverage and retail industry, to provide organisational and legal framework for the scheme | Single, not-for-profit scheme, formed by beverage and retail industry | Government-appointed System Coordinator (responsible for financial management and targets) and separate Network Operator (responsible for return points) |
| Type of containers covered | Plastic bottle, metal can, glass bottle | Plastic bottle, metal can, glass bottle | Plastic bottle, metal can, glass bottle, beverage carton |
| Type of beverages covered | All except dietary drinks exclusively for infant or young children in plastic bottles | All except milk, wine and spirits. Fruit wine wines and wine-product cocktails are included when sold in plastic and metal packaging | All except wine, spirits, cordial and plain milk (or milk substitute) containers, flavoured milk containers of >1L, pure fruit or vegetable juice containers of >1L, glass containers for wine and spirits, casks for wine or water >1L, sachets for wine of >250 ml, containers for cordials and concentrated fruit/vegetable juices and registered health tonics |
| Deposit amount (PPP-adjusted)³ | Flat deposit. S\$0.30 | Flat deposit. S\$0.20 | Reward upon return. S\$0.06 |
| Deposit mark |  16 |  17 | Deposit mark is a text |
| Retailers mandated to operate return points | Yes. Retailers are obligated to collect containers of the same material type that they sell, regardless of the content or brand. | Yes. Retailers with a shop area up to 300 m ² (in bigger cities) and up to 60 m ² (in smaller cities and rural areas) are exempt from this obligation. | No |
| Return points¹⁵ | ~135,000 return points. Return point locations include any retail outlet that sells deposit-bearing beverages. | ~2,700 return points (1,000 automated and 1,700 manual). Return point locations include retail outlets that sell deposit-bearing beverages. | ~635 return points (350 automated and 285 manual) with ~1,200 RVMs; 26 bulk redemption centres. Return point locations include supermarkets and public precincts. |

Endnotes

- 1 <https://www.mse.gov.sg/resources/zero-waste-masterplan.pdf>
- 2 From the 2018 levels.
- 3 Using Purchasing Power Parity (PPP)-adjusted exchange rates.
- 4 Based on a consultancy study commissioned by NEA; for containers that are 150ml to 3L.
- 5 Conducted in early 2021 with around 65 participants from the public including civic society.
- 6 Conducted in early 2022 with around 50 participants from the public, industry and academia representatives.
- 7 There may be potential concerns about hygiene and odour from residues in bottles, and/or the impact of milk residues on the quality of recycled plastic.
- 8 As there may be a long lag time such as of a few years from purchase to consumption.
- 9 Freshly prepared beverages will be excluded as they are usually produced in small batches and do not have barcodes that are essential to facilitate the deposit refund under the Scheme. As such, these will be further studied and considered in the next phase of the EPR policy for managing packaging waste. Freshly prepared beverages are made and sold in the same premises (e.g., in Traditional Chinese Medicine halls), or prepared at a central F&B establishment for sale by the same food business operator.
- 10 Based on Singapore Food Agency's licensing of supermarkets.
- 11 Proposed to be 80% based on high performing schemes in overseas.
- 12 Source: Returpack
- 13 Source: <https://www.palpa.fi/materials/#deposit-marks>
- 14 Source: <https://infinitem.no/>
- 15 Source: Global Deposit Book 2020, An Overview of Deposit Systems for One-Way Beverage Containers, ReLoop Platform
- 16 Source: <https://dpg-pfandsystem.de>
- 17 Source: <https://grazintiverta.it>

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