



# Phase II Report

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Revision 01

Prepared for Beverage Container Management Board

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## Prepared by MNP

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# Table of Contents

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1. Executive Summary .....	1
2. Rate Structure .....	2
3. Classification of Costs .....	5
4. Recommended Handling Commissions .....	24
5. Comparison to Other Jurisdictions .....	30
6. Glossary.....	32

# 1. Executive Summary

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As part of MNP's role as Data Collection Agent (DCA), support is provided to different Handling Commission Review (HCR) processes as directed by the Beverage Container Management Board (BCMB). This report distributes the Total System Revenue Requirement from our Phase I Report to each of the active container streams in the Alberta container recycling industry. Currently, there are 25 active container streams identified by the BCMB's Handling Commission By-law<sup>1</sup>. These include the following:

- Aluminum;
- Bag in Box Over 1 L;
- Bi-metal 0 -1 L;
- Bi-Metal Over 1 L;
- Drink Pouches 0-1 L;
- Gable Top 0-1 L;
- Gable Top Over 1 L;
- Glass 0-1 L;
- Glass Over 1 L;
- High-Density Polyethylene Resin (HDPE);
- Industry Standard Bottle;
- Liquor and Wine Ceramics;
- Molson Coors MGD Refillable 355ml;
- Moosehead Refillable;
- Other Plastics 0-1 L;
- Other Plastics Over 1 L;
- PET 0-1 L;
- PET Over 1 L;
- Plastic One-Way Keg over 1L;
- Sleemans Refillable;
- Sleeve-in-a-Box 0-1 L;
- Specialty Containers;
- Steam Whistle Refillable;
- Tetra 0-1 L; and
- Tetra Over 1 L.

The methodology for this distribution has been created using the following inputs:

- BCMB's Handling Commission Review By-law including direction to utilize time and motion study results;
- BCMB's Handling Commission Rate Setting Policy; and
- Dr. Bonbright's Principles of Public Utility Rates.

To distribute the Revenue Requirement, we have used five allocators as follows:

- Direct and Collector Labour Allocator;
- Volume Allocator;
- Pallet Allocator;
- Building Allocator; and
- Business Cost Allocator.

The Phase I analysis determines a 7.6% increase to the Target Year Revenue Requirement, and the distribution of this revenue across container streams results in an average increase to historical handling commissions of 6.8%.

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<sup>1</sup> 2024.11.20.Handling.Commission.Bylaw.BOARD.APPROVED.rates.May1\_2025

## 2. Rate Structure

In Alberta, the beverage container handling commission rates are based on BCMB By-laws and policies. The Handling Commission By-law identifies that the BCMB shall set a single handling commission for each category of container payable to all depots<sup>2</sup>. Additionally, every Depot other than a Class D Depot shall be paid a Depot Viability Handling Commission (DVHC) of 1.5 cents for each of the first 1.5 million non-refillable containers to the CSA by that Depot in every calendar year commencing January 1<sup>st</sup>.<sup>3</sup>

As directed by the BCMB's Handling Commission Rate Setting Policy<sup>4</sup>, we have considered Dr. Bonbright's Principles of Public Utility Rates<sup>5</sup>. Dr. Bonbright developed his principles to set a structural framework for the development of rates for regulated utilities that are deemed to be a public good (fully or partially). A key concern with industries that fit in this structure (water, power, etc.) is that many operate in an environment that is monopolistic or that exhibits similar market realities. At the same time, many of the services provided are deemed to be at least partially a public good and therefore require government regulation to avoid rent seeking and other detrimental monopolistic behaviour. Dr. Bonbright's principles were therefore created to balance these two competing forces. In general, his principles aim to ensure that rates are set at a level that creates efficient use by the user base while allowing for appropriate return and optimal resource allocation.

Dr. Bonbright's principles were created for and generally apply to larger more capital-intensive utilities (water, power etc.) where rates are determined by costs and a return on capital assets that is equal to the expected market return in a non-monopolistic environment. However, the principles can be applied to other "utilities" that are deemed to offer a public good that operate under similar regulated conditions, even if a return on assets is not part of an optimal rate setting mechanism.

Dr. Bonbright initially developed eight principles for a sound rate structure in his study of public utility rates, to which two additional criteria were added in the second edition of his text. In reviewing the ten principles, we see that they are applied in the determination of the beverage container handling commission in the following ways:

1. **The related, "practical" attributes of simplicity, understandability, public acceptability, and feasibility of application.**

Handling commissions are set as a rate (in cents) per container which is simple and assists in the understanding by interested parties (identified by the BCMB Board through the Handling Commission Review process): the depots receiving handling commissions for containers processed and the public. These rates are readily applied by manufacturers through their financial systems and tracked by the DCA and BCMB to ensure consistency in application.

2. **Freedom from controversies as to proper interpretation.**

As noted above, handling commissions are stated simply as a rate per container and the

<sup>2</sup> 2024.11.20.Handling.Commission.Bylaw.BOARD.APPROVED.rates.May1\_2025 – Section 4.2

<sup>3</sup> 2024.11.20.Handling.Commission.Bylaw.BOARD.APPROVED.rates.May1\_2025 – Section 4.3

<sup>4</sup> 2023.04.26.Handling.Commission.Rate.Setting.Policy.BOARD.APPROVED

<sup>5</sup> The Regulation of Public Utilities, Charles F. Philips, Jr., 1998, Pg. 410-411. Notes that the 2nd edition of Bonbright's work was published in 1988 in conjunction with Albert L. Danielsen and David R. Kamerschen and two additional Rate Design criteria were added:

- Rates should promote economic efficiency
- Rates should reflect all present and future private and social costs and benefits (i.e. internalities and externalities)

application of these rates is monitored through data provided by manufacturers to the DCA. These two items mean that there should be no controversies about interpretation and that if there are misinterpretations, they are readily identified and corrected.

**3. Effectiveness in yielding Total Revenue Requirements under the fair-return standard.**

The fair-return standard states that the company will be allowed as large of a return on the capital investment in its enterprise as it would receive if it were investing the same amount in other securities possessing an attractiveness, stability, and certainty equal to that of the company's enterprise.

This occurs in the application of the Return Margin Expert's recommended pre-tax return margin which, as directed through the Return Margin Expert Request for Proposal (RFP)<sup>6</sup>, is a recommendation based on a fair return. Reference to a fair return is also found in the BCMB's Handling Commission Rate Setting Policy which directs that the Revenue Requirement be designed to recover prudently-incurred costs, expenses and taxes and to earn a fair pre-tax return.<sup>7</sup>

**4. Revenue stability from year to year.**

Given that handling commissions are based on actual costs reported by depots and validated by the DCA, the Revenue Requirement is relatively stable, provided that no systemic changes occur in depots that materially impact their costs. If material change does occur, changes to the Revenue Requirement are made to address them with any associated impact on revenue stability analysed and considered in Section 5 of this report.

**5. Stability of the rates themselves, with minimal unexpected changes seriously adverse to existing customers.**

Stability in the average rate (calculated in the Phase I Report) is achieved through standard reporting, data validation and the large and diverse number of depots that form the Study System. To further improve rate stability, the BCMB has implemented an annual update that has been in effect since 2020 as documented in the Handling Commission By-law<sup>8</sup>. This process means that changes to costs and revenues experienced by depots are captured on a more timely basis.

A change that was made to the rate setting process made in recent years, in part to reduce unexpected changes and improve revenue stability, was to replace the previous Indices Expert process with an application of a more generic Alberta CPI forecast Indices report. Fluctuations in the Indices Expert's forecasted indices from year to year were resulting in significant volatility in handling commission rates. As, Alberta CPI forecasts have been more stable and appeared to track more closely to the depot system's observed historical cost changes, unexpected rate changes have been reduced.

**6. Fairness to the specific rates in the apportionment of total costs of service among the different consumers.**

Throughout the Phase II report, we describe how costs are apportioned to each of the container streams. This allocation is guided by the BCMB's Handling Commission Review Policy and

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<sup>6</sup> HCR Document 9 - 2025.03.11.Return.Margin.Expert.RFP.DCA

<sup>7</sup> 2023.04.26.Handling.Commission.Rate.Setting.Policy.BOARD.APPROVED

<sup>8</sup> 2024.11.20.Handling.Commission.Bylaw.BOARD.APPROVED.rates.May1\_2025 – Section 13

determined based on a number of allocation factors described in Section 3.1 – Allocators. The purpose of this analysis is to establish fair handling commissions for each of the container streams through reasonable apportionment of total costs.

**7. Avoidance of “undue discrimination” in rate relationships.**

Undue discrimination describes circumstances where a significant market provider does not reflect the differences between (or does not reflect similarities in) the circumstances of different parties in terms of the transaction conditions it offers, and where such behaviour could harm competition<sup>9</sup>.

This principle is supported by the differentiation in handling commissions by container stream. Also, as containers are treated consistently when brought into a depot as well as through the return process (counted, sorted, and packaged for transport), there should not be any significant differences between container streams other than those addressed through the allocation analysis.

**8. Efficiency of the rate classes and rate blocks in discouraging wasteful use of service while promoting all justified types and amounts of use.**

Handling commissions are tailored to the actual costs through the determination of the Revenue Requirement and then allocated to container streams. This supports efficient use of the depots and the appropriate types and amounts of use.

**9. Rates should promote economic efficiency.**

To maintain system viability, handling commissions use actual costs and a planned return margin in the determination of the Revenue Requirement. Once the rate is set for the system and for the individual container streams, profit motivated depots are incented to minimize costs associated with processing each container to contribute to economic efficiency.

**10. Rates should reflect all present and future private and social costs and benefits (i.e., internalities and externalities).**

Handling commissions have been designed to reflect the known, present and future private and social costs and benefits associated with Alberta’s depot system.

Given the direction of the Handling Commission By-law, the Handling Commission Rate Setting Policy, and our interpretation of Bonbright’s principles of rate setting, we have determined that, consistent with previous years, handling commission rates should be set using cost allocators appropriate for each cost type and resulting in one rate applicable to each container received by a depot.

The next section summarizes the costs to be allocated and the allocators used for each type of cost.

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<sup>9</sup> <https://www.ofgem.gov.uk/ofgem-publications/56664/12909-eowg-4-slides-aep-discrimination.pdf>

# 3. Classification of Costs

In the 2025/26 Phase I Report, the Target Year Revenue Requirement is calculated as the Total System Target Year expenses plus total return (calculated using the Return Margin Expert's recommended return rate) plus Total System Target Year income tax expense minus Total System Target Year miscellaneous revenue. This calculation is shown in Schedule 1 below.

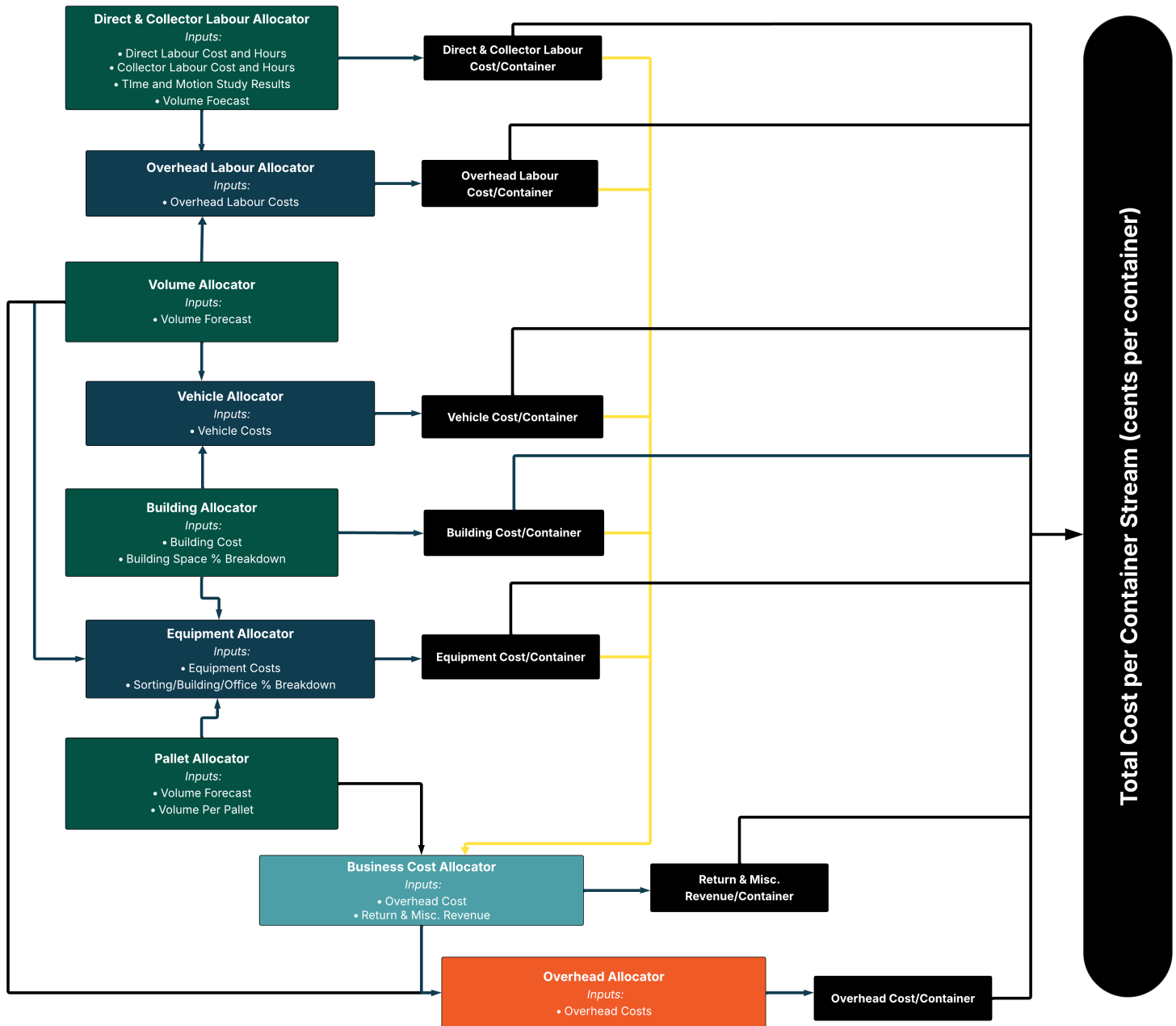
**Schedule 1: Revenue Requirement**

		Target Year Revenue Requirement	Percent of Total Cost	Unit Cost (\$/container)
No.	(a)	(b)	(c)	(d)
1	Direct Labour	\$ 42,616,038	30.3%	1.92
2	Contract Labour	\$ 2,292,962	1.6%	0.10
3	Overhead Labour	\$ 18,534,339	13.2%	0.83
4	Building	\$ 27,206,920	19.4%	1.23
5	Equipment	\$ 8,125,281	5.8%	0.37
6	Vehicle	\$ 4,353,714	3.1%	0.20
7	Overhead	\$ 14,773,218	10.5%	0.67
8	Total Return	\$ 22,859,649	16.3%	1.03
9	Less: Miscellaneous Revenue	\$ (313,032)	-0.2%	-0.01
10	Target Year Revenue Requirement	\$ 140,449,088	100.0%	6.326

The unit cost column presents the Target Year Revenue Requirement as a cost (in cents) per container. This calculation is completed by multiplying the cost by 100 (to convert the dollars into cents) and dividing this by the Target Year volume forecast.

The Target Year Revenue Requirement is a total of \$139.5 million. Each of the cost items identified in Schedule 1 will be distributed using allocators. An overview of this process is shown in the figure below and are discussed in more details the section below.

Figure 1 – Cost Allocators Diagram



## 3.1 Allocators

Five allocators are used to allocate costs to different container streams:

- Direct and Collector Labour Allocator
- Volume Allocator
- Pallet Allocator
- Building Allocator
- Business Cost Allocator

### 3.1.1 Volume and Pallet Allocators

The volume allocator is calculated as the percentage of each container stream's volume divided by Total System Target Year volume.

The pallet allocator is produced by dividing the total forecast volume for each container stream by the average number of containers received per pallet during 2024. The total calculated pallets for each container stream are divided by the total number of pallets for the system to create a pallet allocator.

Both allocators are shown in Schedule 2.

**Schedule 2: Volume and Pallet Allocators**

	Forecast Group	Container Stream	Target Year Volume Forecast Volume	Target Year Volume Allocator	Containers per Pallet	Total Pallets	Pallet Allocator	Manufacturer
No	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	1	Aluminum 0 - 1 Litre	1,138,960,915	51.3%	2,144	531,232	29.0%	ABCRC
2	2	Bag in Box Over 1 Litre	931,677	0.0%	111	8,393	0.5%	ABCRC
3	3	Bi-Metal 0 - 1 Litre	2,711,384	0.1%	825	3,287	0.2%	ABCRC
4	4	Bi-Metal Over 1 Litre	312,002	0.0%	170	1,835	0.1%	ABCRC
5	5	Drink Pouch 0 - 1 Litre	4,156,997	0.2%	1,776	2,341	0.1%	ABCRC
6	6	Gable Top 0 - 1 Litre	40,519,470	1.8%	863	46,952	2.6%	ABCRC
7	7	Gable Top Over 1 Litre	24,837,102	1.1%	350	70,963	3.9%	ABCRC
8	8	Glass 0 - 1 Litre	115,720,807	5.2%	840	137,763	7.5%	ABCRC
9	9	Glass Over 1 Litre	4,578,906	0.2%	339	13,507	0.7%	ABCRC
10	10	HDPE Plastics Natural Over 1 Litre	54,953,580	2.5%	239	229,931	12.5%	ABCRC
11	11	Industry Standard Bottle	25,517,958	1.1%	1,597	15,977	0.9%	BDL
12	12	Liquor and Wine Ceramics	532	0.0%	19	28	0.0%	ABCRC
13	13	Molson Coors MGD Refillable 355ml	2,571,276	0.1%	1,213	2,119	0.1%	BDL
14	14	Moosehead	402,215	0.0%	554	725	0.0%	BDL
15	15	Other Plastics 0 - 1 Litre	99,007,257	4.5%	1,627	60,853	3.3%	ABCRC
16	16	Other Plastics Over 1 Litre	11,250,637	0.5%	277	40,616	2.2%	ABCRC
17	17	PET 0 - 1 Litre	538,832,407	24.3%	1,236	435,949	23.8%	ABCRC
18	18	PET Over 1 Litre	53,949,511	2.4%	346	155,923	8.5%	ABCRC
19	19	Plastic One-Way Keg Over 1 Litre	1,110	0.0%	46	24	0.0%	ABCRC
20	20	Sleemans Refillable	516,792	0.0%	730	708	0.0%	BDL
21	21	Sleeve-in-a-Box 0 - 1 Litre	-	0.0%	944	-	0.0%	ABCRC
22	22	Specialty Containers	-	0.0%	10	-	0.0%	BDL
23	23	Steam Whistle Refillable	51,103	0.0%	467	109	0.0%	BDL
24	24	Tetra Brik 0 - 1 Litre	99,748,347	4.5%	1,383	72,125	3.9%	ABCRC
25	25	Tetra Brik Over 1 Litre	616,862	0.0%	234	2,636	0.1%	ABCRC
26		<b>Total</b>	<b>2,220,148,847</b>	<b>100.0%</b>	<b>18,340</b>	<b>1,833,997</b>	<b>100.0%</b>	

### 3.1.2 Business Cost Allocator

The business cost allocator is calculated by dividing the total of each container stream's share of labour, building, vehicle, and equipment cost by the Total System's labour, building, vehicle, and equipment cost. The container stream's share is the total cost allocated to the container stream for labour, building, vehicle, and equipment cost as shown in Section 3.8. This calculation is shown in Schedule 3 below.

**Schedule 3: Business Cost Allocator**

Forecast Group		Container Stream	Business Costs	Business Cost Allocator
No	(a)	(b)	(c)	(d)
1	1	Aluminum 0 - 1 Litre	\$ 36,377,280	35.3%
2	2	Bag in Box Over 1 Litre	\$ 243,125	0.2%
3	3	Bi-Metal 0 - 1 Litre	\$ 327,220	0.3%
4	4	Bi-Metal Over 1 Litre	\$ 75,893	0.1%
5	5	Drink Pouch 0 - 1 Litre	\$ 313,178	0.3%
6	6	Gable Top 0 - 1 Litre	\$ 2,723,011	2.6%
7	7	Gable Top Over 1 Litre	\$ 2,826,324	2.7%
8	8	Glass 0 - 1 Litre	\$ 7,834,879	7.6%
9	9	Glass Over 1 Litre	\$ 697,429	0.7%
10	10	HDPE Plastics Natural Over 1 Litre	\$ 7,256,440	7.0%
11	11	Industry Standard Bottle	\$ 1,819,584	1.8%
12	12	Liquor and Wine Ceramics	\$ 730	0.0%
13	13	Molson Coors MGD Refillable 355ml	\$ 184,860	0.2%
14	14	Moosehead	\$ 27,776	0.0%
15	15	Other Plastics 0 - 1 Litre	\$ 5,442,654	5.3%
16	16	Other Plastics Over 1 Litre	\$ 1,518,035	1.5%
17	17	PET 0 - 1 Litre	\$ 23,492,898	22.8%
18	18	PET Over 1 Litre	\$ 5,903,663	5.7%
19	19	Plastic One-Way Keg Over 1 Litre	\$ 1,423	0.0%
20	20	Sleemans Refillable	\$ 30,167	0.0%
21	21	Sleeve-in-a-Box 0 - 1 Litre	\$ 0	0.0%
22	22	Specialty Containers	\$ 0	0.0%
23	23	Steam Whistle Refillable	\$ 3,608	0.0%
24	24	Tetra Brik 0 - 1 Litre	\$ 5,937,353	5.8%
25	25	Tetra Brik Over 1 Litre	\$ 91,724	0.1%
26	<b>Total</b>		\$ 103,129,253	100.0%

## 3.2 Application of Allocators

### 3.2.1 Labour

Labour is split into two groups in Phase II: (a) Direct and Collector Labour (b) Overhead Labour.

#### DIRECT AND COLLECTOR LABOUR

Direct and collector labour have been grouped in this report as both job functions are used to process containers. The total cost allocated to this category is \$38 million which is allocated using the following four steps:

1. Total seconds per container is calculated by the Time and Motion Expert and reported in their final report<sup>10</sup>, shown in Schedule 4 below.

**Schedule 4: Time and Motion Expert Second per Container**

Forecast Group		Container Stream	Total Time (s)
		(b)	(c)
1	1	Aluminum 0 - 1 Litre	2.20
2	2	Bag in Box Over 1 Litre	15.43
3	3	Bi-Metal 0 - 1 Litre	13.06
4	4	Bi-Metal Over 1 Litre	19.92
5	5	Drink Pouch 0 - 1 Litre	8.11
6	6	Gable Top 0 - 1 Litre	5.63
7	7	Gable Top Over 1 Litre	8.41
8	8	Glass 0 - 1 Litre	5.63
9	9	Glass Over 1 Litre	13.64
10	10	HDPE Plastics Natural Over 1 Litre	8.02
11	11	Industry Standard Bottle	7.40
12	12	Liquor and Wine Ceramics	74.84
13	13	Molson Coors MGD Refillable 355ml	7.04
14	14	Moosehead	4.45
15	15	Other Plastics 0 - 1 Litre	5.12
16	16	Other Plastics Over 1 Litre	9.71
17	17	PET 0 - 1 Litre	3.08
18	18	PET Over 1 Litre	7.72
19	19	Plastic One-Way Keg Over 1 Litre	131.15
20	20	Sleemans Refillable	3.91
21	21	Sleeve-in-a-Box 0 - 1 Litre	14.49
22	22	Specialty Containers	73.19
23	23	Steam Whistle Refillable	3.91
24	24	Tetra Brik 0 - 1 Litre	5.52
25	25	Tetra Brik Over 1 Litre	10.17

Note that as the Time and Motion Expert reported no observations of Sleeve-in-a-Box or Specialty Containers, their seconds per container were determined consistently with the methodologies used

<sup>10</sup> 2025/26 HCR Document 2 - 2024.12.11.Time.and.Motion.Study.2024.Final.Report

in establishing their respective initial interim handling commission rates.

2. Direct and collector labour hours are calculated based on the seconds per container (from step 1) multiplied by the Target Year forecast for each container stream.
3. Target year direct and collector labour hours are from Phase I Schedule 1b, line 13 and are shown in Schedule 5 below. Direct and collector hours (calculated in step 2) are escalated on a percentage basis to the Target Year.

**Schedule 5: Direct and Collector Target Year Hours and Cost**

		Amount
No.	(a)	(b)
1	Target Year Direct & Collector Labour Costs	\$44,909,000
2	Target Year Direct & Collector Labour Hours	2,085,291
3	<b>Average Target Year Direct &amp; Collector Labour Rate</b>	<b>\$21.54</b>
4	<b>Average Time per container (seconds)</b>	<b>3.44</b>

4. Total costs are calculated by multiplying the adjusted hours (step 3) by the loaded hourly rate, calculated as the total Target Year Direct and Collector Labour Costs divided by the Target Year Direct and Collector Labour hours.

These four steps are shown in Schedule 6.

The unit cost column presents the Total Direct and Collector Labour Costs as a cost (in cents) per container. This calculation is completed by multiplying the cost by 100 (to convert the dollars into cents) and dividing this by the Target Year Volume Forecast.

## Schedule 6: Direct and Collector Labour Allocation

Forecast Group		Container Stream	Time Per Container	Target Year Forecast	Direct and Collector Labour Hours	Target Year Direct and Collector Labour Hours	Loaded Hourly Rate (\$/Hour)	Total Direct & Collector Labour Cost ( \$ )	Direct and Collector Labour Allocator	Unit Cost (¢/container)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(i)
1	1	Aluminum 0 - 1 Litre	2.2	1,138,960,915	696,032	683,258	\$ 21.54	\$ 14,714,698	32.8%	1.29
2	2	Bag in Box Over 1 Litre	15.43	931,677	3,993	3,920	\$ 21.54	\$ 84,421	0.2%	9.06
3	3	Bi-Metal 0 - 1 Litre	13.06	2,711,384	9,836	9,656	\$ 21.54	\$ 207,948	0.5%	7.67
4	4	Bi-Metal Over 1 Litre	19.92	312,002	1,726	1,695	\$ 21.54	\$ 36,498	0.1%	11.70
5	5	Drink Pouch 0 - 1 Litre	8.11	4,156,997	9,365	9,193	\$ 21.54	\$ 197,980	0.4%	4.76
6	6	Gable Top 0 - 1 Litre	5.63	40,519,470	63,368	62,205	\$ 21.54	\$ 1,339,652	3.0%	3.31
7	7	Gable Top Over 1 Litre	8.41	24,837,102	58,022	56,957	\$ 21.54	\$ 1,226,639	2.7%	4.94
8	8	Glass 0 - 1 Litre	5.63	115,720,807	180,974	177,653	\$ 21.54	\$ 3,825,954	8.5%	3.31
9	9	Glass Over 1 Litre	13.64	4,578,906	17,349	17,031	\$ 21.54	\$ 366,772	0.8%	8.01
10	10	HDPE Plastics Natural Over 1 Litre	8.02	54,953,580	122,424	120,178	\$ 21.54	\$ 2,588,155	5.8%	4.71
11	11	Industry Standard Bottle	7.4	25,517,958	52,454	51,491	\$ 21.54	\$ 1,108,913	2.5%	4.35
12	12	Liquor and Wine Ceramics	74.84	532	11	11	\$ 21.54	\$ 234	0.0%	43.95
13	13	Molson Coors MGD Refillable 35!	7.04	2,571,276	5,028	4,936	\$ 21.54	\$ 106,302	0.2%	4.13
14	14	Moosehead	4.45	402,215	497	488	\$ 21.54	\$ 10,511	0.0%	2.61
15	15	Other Plastics 0 - 1 Litre	5.12	99,007,257	140,810	138,226	\$ 21.54	\$ 2,976,849	6.6%	3.01
16	16	Other Plastics Over 1 Litre	9.71	11,250,637	30,345	29,789	\$ 21.54	\$ 641,529	1.4%	5.70
17	17	PET 0 - 1 Litre	3.08	538,832,407	461,001	452,541	\$ 21.54	\$ 9,745,952	21.7%	1.81
18	18	PET Over 1 Litre	7.72	53,949,511	115,692	113,569	\$ 21.54	\$ 2,445,821	5.4%	4.53
19	19	Plastic One-Way Keg Over 1 Litre	131.15	1,110	40	40	\$ 21.54	\$ 855	0.0%	77.02
20	20	Sleemans Refillable	3.91	516,792	561	551	\$ 21.54	\$ 11,866	0.0%	2.30
21	21	Sleeve-in-a-Box 0 - 1 Litre	14.49	-	-	-	\$ 21.54	\$ 0	0.0%	0.00
22	22	Specialty Containers	73.19	-	-	-	\$ 21.54	\$ 0	0.0%	0.00
23	23	Steam Whistle Refillable	3.91	51,103	56	54	\$ 21.54	\$ 1,173	0.0%	2.30
24	24	Tetra Brik 0 - 1 Litre	5.52	99,748,347	152,947	150,141	\$ 21.54	\$ 3,233,439	7.2%	3.24
25	25	Tetra Brik Over 1 Litre	10.17	616,862	1,743	1,711	\$ 21.54	\$ 36,841	0.1%	5.97
26	Total		3.44	2,220,148,847	2,124,276	2,085,291	\$ 21.54	\$ 44,909,000	100.0%	2.02

## Overhead Labour

Overhead labour is allocated to container streams based on the total volume allocator and the direct and collector labour as shown in the table below.

### Schedule 7: Overhead Labour Allocators

Cost Classification		% of Total	Total Overhead Cost
No.	(a)	(c)	(d)
1	Direct and Collector Labour Allocator	50.0%	\$ 9,267,169
2	Volume Allocator	50.0%	\$ 9,267,169
3	<b>Total</b>	100.0%	\$ 18,534,339

The allocation to container streams is shown in Phase as shown in Schedule 8.

### Schedule 8: Overhead Labour Allocation

Forecast Group		Container Stream	Direct and Collector Labour Allocator	Direct and Collector Labour Cost	Volume Allocator	Volume Cost	Overhead Labour Cost (\$)	Unit Cost (¢/container)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	1	Aluminum 0 - 1 Litre	32.8%	\$ 3,036,443	51.3%	\$ 4,754,160	\$ 7,790,603	0.68
2	2	Bag in Box Over 1 Litre	0.2%	\$ 17,421	0.0%	\$ 3,889	\$ 21,310	2.29
3	3	Bi-Metal 0 - 1 Litre	0.5%	\$ 42,911	0.1%	\$ 11,318	\$ 54,229	2.00
4	4	Bi-Metal Over 1 Litre	0.1%	\$ 7,531	0.0%	\$ 1,302	\$ 8,834	2.83
5	5	Drink Pouch 0 - 1 Litre	0.4%	\$ 40,854	0.2%	\$ 17,352	\$ 58,206	1.40
6	6	Gable Top 0 - 1 Litre	3.0%	\$ 276,443	1.8%	\$ 169,133	\$ 445,576	1.10
7	7	Gable Top Over 1 Litre	2.7%	\$ 253,122	1.1%	\$ 103,673	\$ 356,795	1.44
8	8	Glass 0 - 1 Litre	8.5%	\$ 789,502	5.2%	\$ 483,033	\$ 1,272,535	1.10
9	9	Glass Over 1 Litre	0.8%	\$ 75,685	0.2%	\$ 19,113	\$ 94,798	2.07
10	10	HDPE Plastics Natural Over 1 Litre	5.8%	\$ 534,077	2.5%	\$ 229,383	\$ 763,460	1.39
11	11	Industry Standard Bottle	2.5%	\$ 228,829	1.1%	\$ 106,515	\$ 335,344	1.31
12	12	Liquor and Wine Ceramics	0.0%	\$ 48	0.0%	\$ 2	\$ 50	9.49
13	13	Molson Coors MGD Refillable 355ml	0.2%	\$ 21,936	0.1%	\$ 10,733	\$ 32,669	1.27
14	14	Moosehead	0.0%	\$ 2,169	0.0%	\$ 1,679	\$ 3,848	0.96
15	15	Other Plastics 0 - 1 Litre	6.6%	\$ 614,286	4.5%	\$ 413,268	\$ 1,027,554	1.04
16	16	Other Plastics Over 1 Litre	1.4%	\$ 132,382	0.5%	\$ 46,962	\$ 179,344	1.59
17	17	PET 0 - 1 Litre	21.7%	\$ 2,011,120	24.3%	\$ 2,249,152	\$ 4,260,272	0.79
18	18	PET Over 1 Litre	5.4%	\$ 504,706	2.4%	\$ 225,192	\$ 729,898	1.35
19	19	Plastic One-Way Keg Over 1 Litre	0.0%	\$ 176	0.0%	\$ 5	\$ 181	16.31
20	20	Sleemans Refillable	0.0%	\$ 2,449	0.0%	\$ 2,157	\$ 4,606	0.89
21	21	Sleeve-in-a-Box 0 - 1 Litre	0.0%	\$ 0	0.0%	\$ 0	\$ 0	0.00
22	22	Specialty Containers	0.0%	\$ 0	0.0%	\$ 0	\$ 0	0.00
23	23	Steam Whistle Refillable	0.0%	\$ 242	0.0%	\$ 213	\$ 455	0.89
24	24	Tetra Brik 0 - 1 Litre	7.2%	\$ 667,234	4.5%	\$ 416,362	\$ 1,083,596	1.09
25	25	Tetra Brik Over 1 Litre	0.1%	\$ 7,602	0.0%	\$ 2,575	\$ 10,177	1.65
26		Total	100.0%	\$ 9,267,169	100.0%	\$ 9,267,169	\$ 18,534,339	0.83

### 3.2.2 Building

Building costs are separated into five categories: office, customer interface, loading, sorting, and storage. Space associated with the office and customer interface categories is deemed based on the volume allocator given that these spaces may need to be increased as a depot has increased volume. The remaining three categories – loading, sorting, and storage – are allocated using the pallet allocator as these activities would occur when containers are in or are being sorted into pallets. Schedule 9 summarizes the percentage of space allocated to each category as well as the total costs.

**Schedule 9: Building Allocators**

		% Reported	Cost (\$)	Volume Classification Factor	Pallet Classification Factor	Volume Classification (\$)	Pallet Classification (\$)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Office	7.4%	\$ 2,008,099	1.00		\$ 2,008,099	\$ 0
2	Customer Interface	15.7%	\$ 4,268,550	1.00		\$ 4,268,550	\$ 0
3	Loading	11.8%	\$ 3,206,967		1.00	\$ 0	\$ 3,206,967
4	Sorting	27.5%	\$ 7,495,095		1.00	\$ 0	\$ 7,495,095
5	Storage	37.6%	\$ 10,228,208		1.00	\$ 0	\$ 10,228,208
6	<b>Total</b>	<b>100.0%</b>	<b>\$ 27,206,920</b>			<b>\$ 6,276,649</b>	<b>\$ 20,930,270</b>

The application of the volume and pallet allocators results in a total building cost per container stream which is converted to a percentage of the total building cost. This percentage is the building allocator. Schedule 10 summarizes the calculations that result from these steps.

The unit cost column in Schedule 10 presents the total building cost as a cost (in cents) per container. This calculation is completed by multiplying the cost by 100 (to convert the dollars into cents) and dividing this by the Target Year Volume Forecast.

**Schedule 10: Building Costs Allocation**

	Forecast Group	Container Stream	Volume Allocator	Volume Cost (\$)	Pallet Allocator	Total Pallet Cost (\$)	Total Building Cost (\$)	Building Allocator	Unit Cost (\$/container)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	1	Aluminum 0 - 1 Litre	51.3%	\$ 3,219,991	29.0%	\$ 6,062,619	\$ 9,282,609	34.1%	0.82
2	2	Bag in Box Over 1 Litre	0.0%	\$ 2,634	0.5%	\$ 95,790	\$ 98,424	0.4%	10.56
3	3	Bi-Metal 0 - 1 Litre	0.1%	\$ 7,665	0.2%	\$ 37,507	\$ 45,173	0.2%	1.67
4	4	Bi-Metal Over 1 Litre	0.0%	\$ 882	0.1%	\$ 20,945	\$ 21,827	0.1%	7.00
5	5	Drink Pouch 0 - 1 Litre	0.2%	\$ 11,752	0.1%	\$ 26,712	\$ 38,465	0.1%	0.93
6	6	Gable Top 0 - 1 Litre	1.8%	\$ 114,554	2.6%	\$ 535,833	\$ 650,386	2.4%	1.61
7	7	Gable Top Over 1 Litre	1.1%	\$ 70,218	3.9%	\$ 809,858	\$ 880,076	3.2%	3.54
8	8	Glass 0 - 1 Litre	5.2%	\$ 327,158	7.5%	\$ 1,572,202	\$ 1,899,360	7.0%	1.64
9	9	Glass Over 1 Litre	0.2%	\$ 12,945	0.7%	\$ 154,148	\$ 167,093	0.6%	3.65
10	10	HDPE Plastics Natural Over 1 Litre	2.5%	\$ 155,361	12.5%	\$ 2,624,063	\$ 2,779,424	10.2%	5.06
11	11	Industry Standard Bottle	1.1%	\$ 72,143	0.9%	\$ 182,332	\$ 254,475	0.9%	1.00
12	12	Liquor and Wine Ceramics	0.0%	\$ 2	0.0%	\$ 320	\$ 321	0.0%	60.35
13	13	Molson Coors MGD Refillable 355ml	0.1%	\$ 7,269	0.1%	\$ 24,188	\$ 31,457	0.1%	1.22
14	14	Moosehead	0.0%	\$ 1,137	0.0%	\$ 8,280	\$ 9,417	0.0%	2.34
15	15	Other Plastics 0 - 1 Litre	4.5%	\$ 279,906	3.3%	\$ 694,474	\$ 974,380	3.6%	0.98
16	16	Other Plastics Over 1 Litre	0.5%	\$ 31,807	2.2%	\$ 463,525	\$ 495,332	1.8%	4.40
17	17	PET 0 - 1 Litre	24.3%	\$ 1,523,349	23.8%	\$ 4,975,210	\$ 6,498,560	23.9%	1.21
18	18	PET Over 1 Litre	2.4%	\$ 152,522	8.5%	\$ 1,779,458	\$ 1,931,980	7.1%	3.58
19	19	Plastic One-Way Keg Over 1 Litre	0.0%	\$ 3	0.0%	\$ 275	\$ 279	0.0%	25.09
20	20	Sleemans Refillable	0.0%	\$ 1,461	0.0%	\$ 8,084	\$ 9,545	0.0%	1.85
21	21	Sleeve-in-a-Box 0 - 1 Litre	0.0%	\$ 0	0.0%	\$ 0	\$ 0	0.0%	0.00
22	22	Specialty Containers	0.0%	\$ 0	0.0%	\$ 0	\$ 0	0.0%	0.00
23	23	Steam Whistle Refillable	0.0%	\$ 144	0.0%	\$ 1,249	\$ 1,394	0.0%	2.73
24	24	Tetra Brik 0 - 1 Litre	4.5%	\$ 282,002	3.9%	\$ 823,114	\$ 1,105,115	4.1%	1.11
25	25	Tetra Brik Over 1 Litre	0.0%	\$ 1,744	0.1%	\$ 30,085	\$ 31,829	0.1%	5.16
26		<b>Total</b>	<b>100.0%</b>	<b>\$ 6,276,649</b>	<b>100.0%</b>	<b>\$ 20,930,270</b>	<b>\$ 27,206,920</b>	<b>100.0%</b>	<b>1.23</b>

### 3.2.3 Equipment

Equipment is sorted into three cost classifications: sorting/loading/cardboard, building, and office. These costs are allocated using the building, pallet, and volume allocators. Half of sorting/loading/cardboard costs are allocated using the pallet allocator and the other half are allocated using the volume allocator. Sorting costs are driven by volume in that the more containers a depot receives of a particular container type, the more sorting is required. Loading and cardboard costs are both driven by the total number of pallets the containers utilize, thus taking up space. All building costs are allocated using the building allocator. All office costs are allocated using the volume allocator. Schedule 11 summarizes the total costs that each allocator will be applied to.

**Schedule 11: Equipment Allocators**

Equipment Cost Classification		Building Allocator	Pallet Allocator	Volume Allocator	Building Allocator	Pallet Allocator	Volume Allocator	Total Equipment Cost
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Sorting / Loading / Cardboard	0.0%	50.0%	50.0%	\$ 0	\$ 3,520,996	\$ 3,520,996	\$ 7,041,993
2	Building	100.0%	0.0%	0.0%	\$ 312,245	\$ 0	\$ 0	\$ 312,245
3	Office	0.0%	0.0%	100.0%	\$ 0	\$ 0	\$ 771,042	\$ 771,042
4	<b>Total</b>				<b>\$ 312,245</b>	<b>\$ 3,520,996</b>	<b>\$ 4,292,039</b>	<b>\$ 8,125,281</b>

The results of the allocation are shown in Schedule 12 below. This Schedule's unit cost column presents the Total Equipment Cost as a cost (in cents) per container. This calculation is completed by multiplying the cost by 100 (to convert the dollars into cents) and dividing this by the Target Year Volume Forecast.

**Schedule 12: Equipment Allocation**

	Forecast Group	Container Stream	Building Allocator	Building Cost (\$)	Pallet Allocator	Pallet Cost (\$)	Volume Allocator	Volume Cost (\$)	Total Equipment Cost (\$)	% of Total	Unit Cost (\$/container)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	1	Aluminum 0 - 1 Litre	34.1%	\$ 106,534	29.0%	\$ 1,019,885	51.3%	\$ 2,201,863	\$ 3,328,282	41.0%	0.29
2	2	Bag in Box Over 1 Litre	0.4%	\$ 1,130	0.5%	\$ 16,114	0.0%	\$ 1,801	\$ 19,045	0.2%	2.04
3	3	Bi-Metal 0 - 1 Litre	0.2%	\$ 518	0.2%	\$ 6,310	0.1%	\$ 5,242	\$ 12,070	0.1%	0.45
4	4	Bi-Metal Over 1 Litre	0.1%	\$ 251	0.1%	\$ 3,524	0.0%	\$ 603	\$ 4,377	0.1%	1.40
5	5	Drink Pouch 0 - 1 Litre	0.1%	\$ 441	0.1%	\$ 4,494	0.2%	\$ 8,036	\$ 12,972	0.2%	0.31
6	6	Gable Top 0 - 1 Litre	2.4%	\$ 7,464	2.6%	\$ 90,140	1.8%	\$ 78,333	\$ 175,938	2.2%	0.43
7	7	Gable Top Over 1 Litre	3.2%	\$ 10,100	3.9%	\$ 136,238	1.1%	\$ 48,016	\$ 194,354	2.4%	0.78
8	8	Glass 0 - 1 Litre	7.0%	\$ 21,798	7.5%	\$ 264,484	5.2%	\$ 223,714	\$ 509,996	6.3%	0.44
9	9	Glass Over 1 Litre	0.6%	\$ 1,918	0.7%	\$ 25,932	0.2%	\$ 8,852	\$ 36,701	0.5%	0.80
10	10	HDPE Plastics Natural Over 1 Litre	10.2%	\$ 31,899	12.5%	\$ 441,433	2.5%	\$ 106,237	\$ 579,569	7.1%	1.05
11	11	Industry Standard Bottle	0.9%	\$ 2,921	0.9%	\$ 30,673	1.1%	\$ 49,332	\$ 82,925	1.0%	0.32
12	12	Liquor and Wine Ceramics	0.0%	\$ 4	0.0%	\$ 54	0.0%	\$ 1	\$ 58	0.0%	10.99
13	13	Molson Coors MGD Refillable 355ml	0.1%	\$ 361	0.1%	\$ 4,069	0.1%	\$ 4,971	\$ 9,401	0.1%	0.37
14	14	Moosehead	0.0%	\$ 108	0.0%	\$ 1,393	0.0%	\$ 778	\$ 2,278	0.0%	0.57
15	15	Other Plastics 0 - 1 Litre	3.6%	\$ 11,183	3.3%	\$ 116,828	4.5%	\$ 191,403	\$ 319,413	3.9%	0.32
16	16	Other Plastics Over 1 Litre	1.8%	\$ 5,685	2.2%	\$ 77,977	0.5%	\$ 21,750	\$ 105,411	1.3%	0.94
17	17	PET 0 - 1 Litre	23.9%	\$ 74,582	23.8%	\$ 836,955	24.3%	\$ 1,041,682	\$ 1,953,219	24.0%	0.36
18	18	PET Over 1 Litre	7.1%	\$ 22,173	8.5%	\$ 299,349	2.4%	\$ 104,296	\$ 425,818	5.2%	0.79
19	19	Plastic One-Way Keg Over 1 Litre	0.0%	\$ 3	0.0%	\$ 46	0.0%	\$ 2	\$ 52	0.0%	4.65
20	20	Sleemans Refillable	0.0%	\$ 110	0.0%	\$ 1,360	0.0%	\$ 999	\$ 2,468	0.0%	0.48
21	21	Sleeve-in-a-Box 0 - 1 Litre	0.0%	\$ 0	0.0%	\$ 0	0.0%	\$ 0	\$ 0	0.0%	0.00
22	22	Specialty Containers	0.0%	\$ 0	0.0%	\$ 0	0.0%	\$ 0	\$ 0	0.0%	0.00
23	23	Steam Whistle Refillable	0.0%	\$ 16	0.0%	\$ 210	0.0%	\$ 99	\$ 325	0.0%	0.64
24	24	Tetra Brik 0 - 1 Litre	4.1%	\$ 12,683	3.9%	\$ 138,468	4.5%	\$ 192,836	\$ 343,987	4.2%	0.34
25	25	Tetra Brik Over 1 Litre	0.1%	\$ 365	0.1%	\$ 5,061	0.0%	\$ 1,193	\$ 6,619	0.1%	1.07
26		<b>Total</b>	<b>100.0%</b>	<b>\$ 312,245</b>	<b>100.0%</b>	<b>\$ 3,520,996</b>	<b>100.0%</b>	<b>\$ 4,292,039</b>	<b>\$ 8,125,281</b>	<b>100.0%</b>	<b>0.37</b>

### 3.2.4 Vehicles

Vehicle costs are allocated using the pallet allocator. Schedule 13 summarizes the results of this allocation. The unit cost column presents the Total Vehicle Cost as a cost (in cents) per container. This calculation is completed by multiplying the cost by 100 (to convert the dollars into cents) and dividing this by the Target Year Volume Forecast.

**Schedule 13: Vehicle Allocation**

	Forecast Group	Container Stream	Pallet Allocator	Total Vehicle Cost (\$)	Unit Cost (¢/container)
No.	(a)	(b)	(c)	(d)	(e)
1	1	Aluminum 0 - 1 Litre	29.0%	\$ 1,261,088	0.11
2	2	Bag in Box Over 1 Litre	0.5%	\$ 19,925	2.14
3	3	Bi-Metal 0 - 1 Litre	0.2%	\$ 7,802	0.29
4	4	Bi-Metal Over 1 Litre	0.1%	\$ 4,357	1.40
5	5	Drink Pouch 0 - 1 Litre	0.1%	\$ 5,556	0.13
6	6	Gable Top 0 - 1 Litre	2.6%	\$ 111,459	0.28
7	7	Gable Top Over 1 Litre	3.9%	\$ 168,459	0.68
8	8	Glass 0 - 1 Litre	7.5%	\$ 327,034	0.28
9	9	Glass Over 1 Litre	0.7%	\$ 32,064	0.70
10	10	HDPE Plastics Natural Over 1 Litre	12.5%	\$ 545,832	0.99
11	11	Industry Standard Bottle	0.9%	\$ 37,927	0.15
12	12	Liquor and Wine Ceramics	0.0%	\$ 66	12.49
13	13	Molson Coors MGD Refillable 355ml	0.1%	\$ 5,031	0.20
14	14	Moosehead	0.0%	\$ 1,722	0.43
15	15	Other Plastics 0 - 1 Litre	3.3%	\$ 144,458	0.15
16	16	Other Plastics Over 1 Litre	2.2%	\$ 96,418	0.86
17	17	PET 0 - 1 Litre	23.8%	\$ 1,034,895	0.19
18	18	PET Over 1 Litre	8.5%	\$ 370,146	0.69
19	19	Plastic One-Way Keg Over 1 Litre	0.0%	\$ 57	5.16
20	20	Sleemans Refillable	0.0%	\$ 1,681	0.33
21	21	Sleeve-in-a-Box 0 - 1 Litre	0.0%	\$ 0	0.00
22	22	Specialty Containers	0.0%	\$ 0	0.00
23	23	Steam Whistle Refillable	0.0%	\$ 260	0.51
24	24	Tetra Brik 0 - 1 Litre	3.9%	\$ 171,216	0.17
25	25	Tetra Brik Over 1 Litre	0.1%	\$ 6,258	1.01
26		<b>Total</b>	<b>100.0%</b>	<b>\$ 4,353,714</b>	<b>0.20</b>

### 3.2.5 Overhead

Overhead costs are allocated using either the business cost, building, or volume allocator. Shop supply are allocated using the building allocator. The following overhead categories are allocated using the business cost allocator:

- Office expenses
- Telephone
- Internet
- Bank charges
- Professional fees
- Training courses
- Marketing and promotions
- Advertising
- Other insurance
- Municipal taxes and licencing
- Other office costs
- Other overhead costs

The volume allocator is used on the following categories:

- Alberta Bottle Depot Association (ABDA) fees
- POR fees
- Non-labour collection costs
- Deposit incentives
- Shrinkage
- UCA Table 9 collection costs
- UCA Table 9 cash and shrinkage

Schedule 14 summarizes the As Adjusted cost shown in column “h” of Phase I Schedule 8 and shows the escalation of these costs to the Target Year Total Cost.

**Schedule 14: Overhead Allocators**

Cost Classification		As Adjusted Cost	% of Total	Total Overhead Cost
No.	(a)	(b)	(c)	(d)
1	Business	\$ 7,795,049	55.9%	\$ 8,254,947
2	Building	\$ 1,023,371	7.3%	\$ 1,083,749
3	Volume	\$ 5,131,755	36.8%	\$ 5,434,523
4	<b>Total</b>	<b>\$ 13,950,175</b>	<b>100.0%</b>	<b>\$ 14,773,218</b>

Schedule 15 summarizes the total cost using the allocators indicated. The unit cost column presents the Total Overhead Cost as a cost (in cents) per container. This calculation is completed by multiplying the cost by 100 (to convert the dollars into cents) and dividing this by the Target Year Volume Forecast.

#### Schedule 15: Overhead Allocation

	Forecast Group	Container Stream	Business Cost Allocator	Business Cost (\$)	Building Allocator	Building Cost (\$)	Volume Allocator	Volume Cost (\$)	Total Overhead Cost (\$)	% of Total	Unit Cost (\$/container)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	1	Aluminum 0 - 1 Litre	35.3%	\$ 2,911,807	34.1%	\$ 369,759	51.3%	\$ 2,787,970	\$ 6,069,537	41.1%	0.53
2	2	Bag in Box Over 1 Litre	0.2%	\$ 19,461	0.4%	\$ 3,921	0.0%	\$ 2,281	\$ 25,662	0.2%	2.75
3	3	Bi-Metal 0 - 1 Litre	0.3%	\$ 26,192	0.2%	\$ 1,799	0.1%	\$ 6,637	\$ 34,629	0.2%	1.28
4	4	Bi-Metal Over 1 Litre	0.1%	\$ 6,075	0.1%	\$ 869	0.0%	\$ 764	\$ 7,708	0.1%	2.47
5	5	Drink Pouch 0 - 1 Litre	0.3%	\$ 25,068	0.1%	\$ 1,532	0.2%	\$ 10,176	\$ 36,776	0.2%	0.88
6	6	Gable Top 0 - 1 Litre	2.6%	\$ 217,963	2.4%	\$ 25,907	1.8%	\$ 99,184	\$ 343,054	2.3%	0.85
7	7	Gable Top Over 1 Litre	2.7%	\$ 226,232	3.2%	\$ 35,057	1.1%	\$ 60,797	\$ 322,085	2.2%	1.30
8	8	Glass 0 - 1 Litre	7.6%	\$ 627,140	7.0%	\$ 75,658	5.2%	\$ 283,264	\$ 986,062	6.7%	0.85
9	9	Glass Over 1 Litre	0.7%	\$ 55,825	0.6%	\$ 6,656	0.2%	\$ 11,208	\$ 73,690	0.5%	1.61
10	10	HDPE Plastics Natural Over 1 Litre	7.0%	\$ 580,839	10.2%	\$ 110,714	2.5%	\$ 134,516	\$ 826,070	5.6%	1.50
11	11	Industry Standard Bottle	1.8%	\$ 145,648	0.9%	\$ 10,137	1.1%	\$ 62,463	\$ 218,248	1.5%	0.86
12	12	Liquor and Wine Ceramics	0.0%	\$ 58	0.0%	\$ 13	0.0%	\$ 1	\$ 73	0.0%	13.64
13	13	Molson Coors MGD Refillable 355ml	0.2%	\$ 14,797	0.1%	\$ 1,253	0.1%	\$ 6,294	\$ 22,344	0.2%	0.87
14	14	Moosehead	0.0%	\$ 2,223	0.0%	\$ 375	0.0%	\$ 985	\$ 3,583	0.0%	0.89
15	15	Other Plastics 0 - 1 Litre	5.3%	\$ 435,655	3.6%	\$ 38,813	4.5%	\$ 242,352	\$ 716,820	4.9%	0.72
16	16	Other Plastics Over 1 Litre	1.5%	\$ 121,511	1.8%	\$ 19,731	0.5%	\$ 27,540	\$ 168,781	1.1%	1.50
17	17	PET 0 - 1 Litre	22.8%	\$ 1,880,481	23.9%	\$ 258,861	24.3%	\$ 1,318,964	\$ 3,458,306	23.4%	0.64
18	18	PET Over 1 Litre	5.7%	\$ 472,557	7.1%	\$ 76,958	2.4%	\$ 132,059	\$ 681,573	4.6%	1.26
19	19	Plastic One-Way Keg Over 1 Litre	0.0%	\$ 114	0.0%	\$ 11	0.0%	\$ 3	\$ 128	0.0%	11.51
20	20	Sleemans Refillable	0.0%	\$ 2,415	0.0%	\$ 380	0.0%	\$ 1,265	\$ 4,060	0.0%	0.79
21	21	Sleeve-in-a-Box 0 - 1 Litre	0.0%	\$ 0	0.0%	\$ 0	0.0%	\$ 0	\$ 0	0.0%	0.00
22	22	Specialty Containers	0.0%	\$ 0	0.0%	\$ 0	0.0%	\$ 0	\$ 0	0.0%	0.00
23	23	Steam Whistle Refillable	0.0%	\$ 289	0.0%	\$ 56	0.0%	\$ 125	\$ 469	0.0%	0.92
24	24	Tetra Brik 0 - 1 Litre	5.8%	\$ 475,253	4.1%	\$ 44,021	4.5%	\$ 244,166	\$ 763,440	5.2%	0.77
25	25	Tetra Brik Over 1 Litre	0.1%	\$ 7,342	0.1%	\$ 1,268	0.0%	\$ 1,510	\$ 10,120	0.1%	1.64
26		<b>Total</b>	<b>100.0%</b>	<b>\$ 8,254,947</b>	<b>100.0%</b>	<b>\$ 1,083,749</b>	<b>100.0%</b>	<b>\$ 5,434,523</b>	<b>\$ 14,773,218</b>	<b>100.0%</b>	<b>0.67</b>

### 3.2.6 Return and Miscellaneous Revenue

Return and miscellaneous revenue have been grouped together as they are allocated to container streams using the business cost allocator. Schedule 16 summarizes the total amounts to be allocated.

**Schedule 16: Return and Miscellaneous Revenue Summary**

Item		Return and Miscellaneous Revenue	
No.	(a)	(b)	
1	Total Return	\$	22,859,649
2	Less: Miscellaneous Revenue	\$	(313,032)
3	<b>System Return</b>	<b>\$</b>	<b>22,546,617</b>

The total of this calculation results in \$22.5 million of cost being allocated to the container streams. This allocation is performed using the business cost allocator as shown in Schedule 17. The unit cost column presents the Total Return and Miscellaneous Revenue as an amount (in cents) per container. This calculation is completed by multiplying the amount by 100 (to convert the dollars into cents) and dividing this by the Target Year Volume Forecast.

### Schedule 17: Return and Miscellaneous Revenue Allocation

Forecast Group		Container Stream	Business Cost Allocator	Return and Miscellaneous Revenue (\$)	Unit Cost (\$/container)
No.	(a)	(b)	(c)	(d)	(e)
1	1	Aluminum 0 - 1 Litre	35.3% \$	7,952,977	0.70
2	2	Bag in Box Over 1 Litre	0.2% \$	53,153	5.71
3	3	Bi-Metal 0 - 1 Litre	0.3% \$	71,539	2.64
4	4	Bi-Metal Over 1 Litre	0.1% \$	16,592	5.32
5	5	Drink Pouch 0 - 1 Litre	0.3% \$	68,469	1.65
6	6	Gable Top 0 - 1 Litre	2.6% \$	595,318	1.47
7	7	Gable Top Over 1 Litre	2.7% \$	617,905	2.49
8	8	Glass 0 - 1 Litre	7.6% \$	1,712,899	1.48
9	9	Glass Over 1 Litre	0.7% \$	152,475	3.33
10	10	HDPE Plastics Natural Over 1 Litre	7.0% \$	1,586,438	2.89
11	11	Industry Standard Bottle	1.8% \$	397,806	1.56
12	12	Liquor and Wine Ceramics	0.0% \$	160	30.01
13	13	Molson Coors MGD Refillable 355ml	0.2% \$	40,415	1.57
14	14	Moosehead	0.0% \$	6,073	1.51
15	15	Other Plastics 0 - 1 Litre	5.3% \$	1,189,899	1.20
16	16	Other Plastics Over 1 Litre	1.5% \$	331,880	2.95
17	17	PET 0 - 1 Litre	22.8% \$	5,136,131	0.95
18	18	PET Over 1 Litre	5.7% \$	1,290,687	2.39
19	19	Plastic One-Way Keg Over 1 Litre	0.0% \$	311	28.04
20	20	Sleemans Refillable	0.0% \$	6,595	1.28
21	21	Sleeve-in-a-Box 0 - 1 Litre	0.0% \$	0	0.00
22	22	Specialty Containers	0.0% \$	0	0.00
23	23	Steam Whistle Refillable	0.0% \$	789	1.54
24	24	Tetra Brik 0 - 1 Litre	5.8% \$	1,298,053	1.30
25	25	Tetra Brik Over 1 Litre	0.1% \$	20,053	3.25
26	Total		100.0% \$	22,546,617	1.02

### 3.3 Total Allocated Costs

Schedule 18 below summarizes all costs allocated to each container stream as discussed throughout Section 3.2 – Application of Allocators. The unit cost column presents the Forecast group Revenue Requirement as a cost (in cents) per container. This calculation is completed by multiplying the cost by 100 (to convert the dollars into cents) and dividing this by the Target Year Volume Forecast

**Schedule 18: Total Cost per Container Stream Summary**

	Forecast Group	Container Stream	Direct and Collector Labour	Overhead Labour	Buildings	Equipment	Vehicle	Overhead	Return and Miscellaneous Revenue	Forecast Group Revenue Requirement	Unit Cost (\$/container)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	1	Aluminum 0 - 1 Litre	\$ 14,714,698	\$ 7,790,603	\$ 9,282,609	\$ 3,328,282	\$ 1,261,088	\$ 6,069,537	\$ 7,952,977	\$ 50,399,794	4.425
2	2	Bag in Box Over 1 Litre	\$ 84,421	\$ 21,310	\$ 98,424	\$ 19,045	\$ 19,925	\$ 25,662	\$ 53,153	\$ 321,940	34.555
3	3	Bi-Metal 0 - 1 Litre	\$ 207,948	\$ 54,229	\$ 45,173	\$ 12,070	\$ 7,802	\$ 34,629	\$ 71,539	\$ 433,387	15.984
4	4	Bi-Metal Over 1 Litre	\$ 36,498	\$ 8,834	\$ 21,827	\$ 4,377	\$ 4,357	\$ 7,708	\$ 16,592	\$ 100,193	32.113
5	5	Drink Pouch 0 - 1 Litre	\$ 197,980	\$ 58,206	\$ 38,465	\$ 12,972	\$ 5,556	\$ 36,776	\$ 68,469	\$ 418,423	10.066
6	6	Gable Top 0 - 1 Litre	\$ 1,339,652	\$ 445,576	\$ 650,386	\$ 175,938	\$ 111,459	\$ 343,054	\$ 595,318	\$ 3,661,383	9.036
7	7	Gable Top Over 1 Litre	\$ 1,226,639	\$ 356,795	\$ 880,076	\$ 194,354	\$ 168,459	\$ 322,085	\$ 617,905	\$ 3,766,314	15.164
8	8	Glass 0 - 1 Litre	\$ 3,825,954	\$ 1,272,535	\$ 1,899,360	\$ 509,996	\$ 327,034	\$ 986,062	\$ 1,712,899	\$ 10,533,840	9.103
9	9	Glass Over 1 Litre	\$ 366,772	\$ 94,798	\$ 167,093	\$ 36,701	\$ 32,064	\$ 73,690	\$ 152,475	\$ 923,594	20.171
10	10	HDPE Plastics Natural Over 1 Litre	\$ 2,588,155	\$ 763,460	\$ 2,779,424	\$ 579,569	\$ 545,832	\$ 826,070	\$ 1,586,438	\$ 9,668,949	17.595
11	11	Industry Standard Bottle	\$ 1,108,913	\$ 335,344	\$ 254,475	\$ 82,925	\$ 37,927	\$ 218,248	\$ 397,806	\$ 2,435,638	9.545
12	12	Liquor and Wine Ceramics	\$ 234	\$ 50	\$ 321	\$ 58	\$ 66	\$ 73	\$ 160	\$ 962	180.915
13	13	Molson Coors MGD Refillable 355ml	\$ 106,302	\$ 32,669	\$ 31,457	\$ 9,401	\$ 5,031	\$ 22,344	\$ 40,415	\$ 247,619	9.630
14	14	Moosehead	\$ 10,511	\$ 3,848	\$ 9,417	\$ 2,278	\$ 1,722	\$ 3,583	\$ 6,073	\$ 37,432	9.306
15	15	Other Plastics 0 - 1 Litre	\$ 2,976,849	\$ 1,027,554	\$ 974,380	\$ 319,413	\$ 144,458	\$ 716,820	\$ 1,189,899	\$ 7,349,374	7.423
16	16	Other Plastics Over 1 Litre	\$ 641,529	\$ 179,344	\$ 495,332	\$ 105,411	\$ 96,418	\$ 168,781	\$ 331,880	\$ 2,018,696	17.943
17	17	PET 0 - 1 Litre	\$ 9,745,952	\$ 4,260,272	\$ 6,498,560	\$ 1,953,219	\$ 1,034,895	\$ 3,458,306	\$ 5,136,131	\$ 32,087,336	5.955
18	18	PET Over 1 Litre	\$ 2,445,821	\$ 729,898	\$ 1,931,980	\$ 425,818	\$ 370,146	\$ 681,573	\$ 1,290,687	\$ 7,875,923	14.599
19	19	Plastic One-Way Keg Over 1 Litre	\$ 855	\$ 181	\$ 279	\$ 52	\$ 57	\$ 128	\$ 311	\$ 1,862	167.780
20	20	Sleemans Refillable	\$ 11,866	\$ 4,606	\$ 9,545	\$ 2,468	\$ 1,681	\$ 4,060	\$ 6,595	\$ 40,822	7.899
21	21	Sleeve-in-a-Box 0 - 1 Litre	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	0.000
22	22	Specialty Containers	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	0.000
23	23	Steam Whistle Refillable	\$ 1,173	\$ 455	\$ 1,394	\$ 325	\$ 260	\$ 469	\$ 789	\$ 4,866	9.521
24	24	Tetra Brik 0 - 1 Litre	\$ 3,233,439	\$ 1,083,596	\$ 1,105,115	\$ 343,987	\$ 171,216	\$ 763,440	\$ 1,298,053	\$ 7,998,846	8.019
25	25	Tetra Brik Over 1 Litre	\$ 36,841	\$ 10,177	\$ 31,829	\$ 6,619	\$ 6,258	\$ 10,120	\$ 20,053	\$ 121,896	19.761
26		<b>Total</b>	<b>\$ 44,909,000</b>	<b>\$ 18,534,339</b>	<b>\$ 27,206,920</b>	<b>\$ 8,125,281</b>	<b>\$ 4,353,714</b>	<b>\$ 14,773,218</b>	<b>\$ 22,546,617</b>	<b>\$ 140,449,088</b>	<b>6.326</b>

We've also summarized this cost as the total cents per container for each container stream as shown in Schedule 19. The unit cost column presents the Forecast group Revenue Requirement as a cost (in cents) per container. This calculation is completed by multiplying the cost by 100 (to convert the dollars into cents) and dividing this by the Target Year Volume Forecast. Each of the other categories in this table (direct and collector labour, overhead labour, building, equipment, vehicle, overhead, and return and miscellaneous revenue) show the cost per container for the specified cost category. These calculations were discussed in their respective sections and follow the same methodology

### Schedule 19: Cost per Container Summary

Forecast Group		Container Stream	Direct and Collector Labour (¢/container)	Overhead Labour (¢/container)	Building (¢/container)	Equipment (¢/container)	Vehicle (¢/container)	Overhead (¢/container)	Return and Miscellaneous Revenue (¢/container)	Unit Cost (¢/container)	Target Year Volume
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	1	Aluminum 0 - 1 Litre	1.29	0.68	0.82	0.29	0.11	0.53	0.70	4.43	1,138,960,915
2	2	Bag in Box Over 1 Litre	9.06	2.29	10.56	2.04	2.14	2.75	5.71	34.55	931,677
3	3	Bi-Metal 0 - 1 Litre	7.67	2.00	1.67	0.45	0.29	1.28	2.64	15.98	2,711,384
4	4	Bi-Metal Over 1 Litre	11.70	2.83	7.00	1.40	1.40	2.47	5.32	32.11	312,002
5	5	Drink Pouch 0 - 1 Litre	4.76	1.40	0.93	0.31	0.13	0.88	1.65	10.07	4,156,997
6	6	Gable Top 0 - 1 Litre	3.31	1.10	1.61	0.43	0.28	0.85	1.47	9.04	40,519,470
7	7	Gable Top Over 1 Litre	4.94	1.44	3.54	0.78	0.68	1.30	2.49	15.16	24,837,102
8	8	Glass 0 - 1 Litre	3.31	1.10	1.64	0.44	0.28	0.85	1.48	9.10	115,720,807
9	9	Glass Over 1 Litre	8.01	2.07	3.65	0.80	0.70	1.61	3.33	20.17	4,578,906
10	10	HDPE Plastics Natural Over 1 Litre	4.71	1.39	5.06	1.05	0.99	1.50	2.89	17.59	54,953,580
11	11	Industry Standard Bottle	4.35	1.31	1.00	0.32	0.15	0.86	1.56	9.54	25,517,958
12	12	Liquor and Wine Ceramics	43.95	9.49	60.35	10.99	12.49	13.64	30.01	180.92	532
13	13	Molson Coors MGD Refillable 355ml	4.13	1.27	1.22	0.37	0.20	0.87	1.57	9.63	2,571,276
14	14	Moosehead	2.61	0.96	2.34	0.57	0.43	0.89	1.51	9.31	402,215
15	15	Other Plastics 0 - 1 Litre	3.01	1.04	0.98	0.32	0.15	0.72	1.20	7.42	99,007,257
16	16	Other Plastics Over 1 Litre	5.70	1.59	4.40	0.94	0.86	1.50	2.95	17.94	11,250,637
17	17	PET 0 - 1 Litre	1.81	0.79	1.21	0.36	0.19	0.64	0.95	5.95	538,832,407
18	18	PET Over 1 Litre	4.53	1.35	3.58	0.79	0.69	1.26	2.39	14.60	53,949,511
19	19	Plastic One-Way Keg Over 1 Litre	77.02	16.31	25.09	4.65	5.16	11.51	28.04	167.78	1,110
20	20	Sleemans Refillable	2.30	0.89	1.85	0.48	0.33	0.79	1.28	7.90	516,792
21	21	Sleeve-in-a-Box 0 - 1 Litre	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
22	22	Specialty Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
23	23	Steam Whistle Refillable	2.30	0.89	2.73	0.64	0.51	0.92	1.54	9.52	51,103
24	24	Tetra Brik 0 - 1 Litre	3.24	1.09	1.11	0.34	0.17	0.77	1.30	8.02	99,748,347
25	25	Tetra Brik Over 1 Litre	5.97	1.65	5.16	1.07	1.01	1.64	3.25	19.76	616,862
26		Total	2.02	0.83	1.23	0.37	0.20	0.67	1.02	6.326	2,220,148,847

## 4. Recommended Handling Commissions

### 4.1 Pre-Depot Viability Handling Commissions and Rate Shock Analysis

Based on the Forecast group Revenue Requirement (Schedule 18, column “j”) and the Target Year volume forecast, we have created variable rates. These rates are displayed in Schedule 20 below. Note that some container streams are in surplus or shortfall, as we have rounded the variable rates to three decimal places. We have deemed the surpluses/shortfalls to be immaterial.

**Schedule 20: Variable Rate Calculation**

	Forecast Group	Container Stream	Manufacturer	Forecast Group Revenue Requirement	Target Year Volume	Variable Rate (¢/container)	Revenue at Variable Rates	Revenue Surplus / Shortfall (\$)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	1	Aluminum 0 - 1 Litre	ABCRC	\$ 50,399,794	1,138,960,915	4.425 \$	50,399,795 \$	1.42
2	2	Bag in Box Over 1 Litre	ABCRC	\$ 321,940	931,677	34.555 \$	321,940 \$	0.00
3	3	Bi-Metal 0 - 1 Litre	ABCRC	\$ 433,387	2,711,384	15.984 \$	433,387 \$	(0.01)
4	4	Bi-Metal Over 1 Litre	ABCRC	\$ 100,193	312,002	32.113 \$	100,193 \$	0.00
5	5	Drink Pouch 0 - 1 Litre	ABCRC	\$ 418,423	4,156,997	10.066 \$	418,423 \$	0.01
6	6	Gable Top 0 - 1 Litre	ABCRC	\$ 3,661,383	40,519,470	9.036 \$	3,661,383 \$	0.10
7	7	Gable Top Over 1 Litre	ABCRC	\$ 3,766,314	24,837,102	15.164 \$	3,766,314 \$	(0.02)
8	8	Glass 0 - 1 Litre	ABCRC	\$ 10,533,840	115,720,807	9.103 \$	10,533,841 \$	0.22
9	9	Glass Over 1 Litre	ABCRC	\$ 923,594	4,578,906	20.171 \$	923,594 \$	0.01
10	10	HDPE Plastics Natural Over 1 Litre	ABCRC	\$ 9,668,949	54,953,580	17.595 \$	9,668,949 \$	0.08
11	11	Industry Standard Bottle	BDL	\$ 2,435,638	25,517,958	9.545 \$	2,435,638 \$	0.01
12	12	Liquor and Wine Ceramics	ABCRC	\$ 962	532	180.915 \$	962 \$	(0.00)
13	13	Molson Coors MGD Refillable 355ml	BDL	\$ 247,619	2,571,276	9.630 \$	247,619 \$	(0.01)
14	14	Moosehead	BDL	\$ 37,432	402,215	9.306 \$	37,432 \$	0.00
15	15	Other Plastics 0 - 1 Litre	ABCRC	\$ 7,349,374	99,007,257	7.423 \$	7,349,374 \$	(0.27)
16	16	Other Plastics Over 1 Litre	ABCRC	\$ 2,018,696	11,250,637	17.943 \$	2,018,696 \$	0.02
17	17	PET 0 - 1 Litre	ABCRC	\$ 32,087,336	538,832,407	5.955 \$	32,087,335 \$	(0.69)
18	18	PET Over 1 Litre	ABCRC	\$ 7,875,923	53,949,511	14.599 \$	7,875,923 \$	0.02
19	19	Plastic One-Way Keg Over 1 Litre	ABCRC	\$ 1,862	1,110	167.780 \$	1,862 \$	0.00
20	20	Sleemans Refillable	BDL	\$ 40,822	516,792	7.899 \$	40,822 \$	0.00
21	21	Sleeve-in-a-Box 0 - 1 Litre	ABCRC	\$ 0	-	22.960 \$	0 \$	0.00
22	22	Specialty Containers	BDL	\$ 0	-	3,149.000 \$	0 \$	0.00
23	23	Steam Whistle Refillable	BDL	\$ 4,866	51,103	9.521 \$	4,866 \$	(0.00)
24	24	Tetra Brik 0 - 1 Litre	ABCRC	\$ 7,998,846	99,748,347	8.019 \$	7,998,846 \$	0.05
25	25	Tetra Brik Over 1 Litre	ABCRC	\$ 121,896	616,862	19.761 \$	121,896 \$	0.00
26	Total			\$ 140,449,088	2,220,148,847	6.326 \$	140,449,089 \$	0.97

The revenue surplus/shortfall has been summarized by manufacturer in Schedule 21 below.

**Schedule 21: Revenue Surplus/Shortfall by Manufacturer**

Manufacturer		Forecast Group Revenue Requirement	Target Year Volume	Revenue at Variable Rates	Revenue Surplus / Shortfall (\$)
No.	(a)	(b)	(c)	(d)	(e)
1	ABCRC	\$ 137,682,712	98.0%	\$ 137,682,713	\$ 0.96
2	BDL	\$ 2,766,376	2.0%	\$ 2,766,376	\$ 0.01
3	<b>Total</b>	<b>\$ 140,449,088</b>	<b>100.0%</b>	<b>\$ 140,449,089</b>	<b>\$ 0.97</b>

In previous HCR processes, a cap on handling commissions has been implemented. During this HCR, the DCA determined that, as this cap was not implemented by BCMB By-law or Policy, it was unnecessary. The variable rates identified in the table above are our final recommendation for handling commissions.

As identified earlier, the recommended rates are structured such that each container of a given container stream processed by a depot receives the same handling commission (100% variable rates). Given this, we do not expect there to be a material impact on aggregate depot revenue as a result of this change in handling commission rates. With that said, we acknowledge that each depot receives a different container mix from the customers in their area. If a depot received a higher proportion of one container stream or another, they may be impacted by the change in handling commission rates.

One of Bonbright's principles is to maintain rate stability year over year. Schedule 22 summarizes the change in rates for each container stream when comparing the current handling commissions and the proposed handling commissions

**Schedule 22: Pre-Depot Viability Handling Commission Change**

	Forecast Group	Container Stream	Target Year Volume	Pre-Depot Viability Target Year Handling Commissions (\$/container)	Current Pre-Depot Viability Handling Commissions (\$/container)	Percent Change	Change in ¢ per container	Deposits (\$/container)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	1	Aluminum 0 - 1 Litre	1,138,960,915	4.425	4.090	8.2%	0.335	10.00
2	2	Bag in Box Over 1 Litre	931,677	34.555	45.786	-24.5%	-11.231	25.00
3	3	Bi-Metal 0 - 1 Litre	2,711,384	15.984	9.809	63.0%	6.175	10.00
4	4	Bi-Metal Over 1 Litre	312,002	32.113	21.385	50.2%	10.728	25.00
5	5	Drink Pouch 0 - 1 Litre	4,156,997	10.066	8.393	19.9%	1.673	10.00
6	6	Gable Top 0 - 1 Litre	40,519,470	9.036	8.233	9.8%	0.803	10.00
7	7	Gable Top Over 1 Litre	24,837,102	15.164	15.685	-3.3%	-0.521	25.00
8	8	Glass 0 - 1 Litre	115,720,807	9.103	9.282	-1.9%	-0.179	10.00
9	9	Glass Over 1 Litre	4,578,906	20.171	18.353	9.9%	1.818	25.00
10	10	HDPE Plastics Natural Over 1 Litre	54,953,580	17.595	18.410	-4.4%	-0.815	25.00
11	11	Industry Standard Bottle	25,517,958	9.545	7.425	28.5%	2.120	10.00
12	12	Liquor and Wine Ceramics	532	180.915	180.734	0.1%	0.181	10.00
13	13	Molson Coors MGD Refillable 355r	2,571,276	9.630	8.172	17.8%	1.458	10.00
14	14	Moosehead	402,215	9.306	10.100	-7.9%	-0.794	10.00
15	15	Other Plastics 0 - 1 Litre	99,007,257	7.423	6.188	20.0%	1.235	10.00
16	16	Other Plastics Over 1 Litre	11,250,637	17.943	17.366	3.3%	0.577	25.00
17	17	PET 0 - 1 Litre	538,832,407	5.955	5.387	10.5%	0.568	10.00
18	18	PET Over 1 Litre	53,949,511	14.599	14.989	-2.6%	-0.390	25.00
19	19	Plastic One-Way Keg Over 1 Litre	1,110	167.780	205.898	-18.5%	-38.118	10.00
20	20	Sleemans Refillable	516,792	7.899	8.300	-4.8%	-0.401	10.00
21	21	Sleeve-in-a-Box 0 - 1 Litre	-	22.960	22.960	0.0%	0.000	10.00
22	22	Specialty Containers	-	3,149.000	3,149.000	0.0%	0.000	10,000.00
23	23	Steam Whistle Refillable	51,103	9.521	9.808	-2.9%	-0.287	10.00
24	24	Tetra Brik 0 - 1 Litre	99,748,347	8.019	6.236	28.6%	1.783	10.00
25	25	Tetra Brik Over 1 Litre	616,862	19.761	18.972	4.2%	0.789	25.00
26	Total		2,220,148,847	6.326	5.871	7.7%	0.455	

As shown in Schedule 22, there are significant changes to some of the container streams when compared with current handling commissions. We do not believe the proposed changes constitute rate shock for the following reasons:

- **Total Rate Change:** The proposed Revenue Requirement represents a 8.3% increase when compared with the revenue received at current handling commission rates. Given that the current rates have been in effect since May 1, 2025, and that the proposed rates are to be effective May 1, 2026, this change represents a reasonable increase based on actual costs reported by depot.
- **Historical Rate Changes:** Historically, there have been significant changes in the handling commissions for some container streams. One of the main inputs to the distribution of cost to container streams is the time and motion study. In 2019, a study was completed by ProSolve and used in the creation of handling commission rates effective in 2020. This 2019 study has been used in every rate change since that time. In 2024, RIVR conducted a time and motion study using the same methodology as ProSolve's 2019 study. As five years have past since the last study was completed, depots have, reasonably, changed the processing of containers in this time. This change would include significant take-up of automation technology like counting machines, Point of Return (POR) equipment, and sorting machines as well as changes in the process of collecting containers from customers. We believe that the recommended rate changes to individual container streams reflect these changes.
- **Percent Changes Over 50%:** In two container streams we have proposed a rate change near or greater than 50%: Bi-Metal 0-1 L and Bi-Metal Over 1 L. These container streams represent 0.1% of the Target Year volume and 0.4% of the Target Year Revenue Requirement. We have determined that while the percentage changes to each of these container streams' rates are relatively large, the total impact on the system is immaterial.

## 4.2 Depot Viability Handling Commissions

The pre-Depot Viability Handling Commissions outlined in Section 4.1 were adjusted to apply a Depot Viability Handling Commission as outlined in the memo 2021.02.24.DVC.New.HCs.Memo.MNP. Below, Schedule 23 outlines the inputs needed to calculate the final Handling Commissions.

**Schedule 23: Depot Viability Handling Commissions Summary**

2024 CY Volume	Target Year Volume	% increase in volume	1.5-cent eligible volume	Avg HC per Container (cents)	Target Year Revenue Requirement	DVHC Addition (\$)	Target Year Depot Viability HC-Eligible Volume	Eligible Portion	Refillable Ratio
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
2,174,031,039	2,220,148,847	2.12%	1,500,000	6.326	\$ 140,449,088	\$ 0.015	316,406,553	14.25%	1.31%

The rates for each container stream are displayed in an excerpt of Schedule 24.

### Schedule 24: Depot Viability Handling Commissions by Container Stream

	Forecast Group	Container Stream	Forecast Group Revenue Requirement	Target Year Volume	Proposed Target Year Handling Commissions (¢/container)	Target Year Volume, With Depot Viability HC (14.3% of total)	Target Year Volume, Without Depot Viability HC (85.7% of total)	Revenue, 1.5-cent increase only (14.3% of total)	Remaining Forecast Group Revenue Requirement ((c) - (h))	New Base Proposed Target Year HC (¢/container)	New HC for first 1.5M containers (¢/container)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	1	Aluminum 0 - 1 Litre	\$ 50,399,794	1,138,960,915	4.425	164,472,833	974,488,082	\$ 2,467,092	\$ 47,932,701	4.208	5.708
2	2	Bag in Box Over 1 Litre	\$ 321,940	931,677	34.555	134,540	797,137	\$ 2,018	\$ 319,921	34.338	35.838
3	3	Bi-Metal 0 - 1 Litre	\$ 433,387	2,711,384	15.984	391,540	2,319,844	\$ 5,873	\$ 427,514	15.767	17.267
4	4	Bi-Metal Over 1 Litre	\$ 100,193	312,002	32.113	45,055	266,947	\$ 676	\$ 99,517	31.896	33.396
5	5	Drink Pouch 0 - 1 Litre	\$ 418,423	4,156,997	10.066	600,295	3,556,702	\$ 9,004	\$ 409,418	9.849	11.349
6	6	Gable Top 0 - 1 Litre	\$ 3,661,383	40,519,470	9.036	5,851,256	34,668,214	\$ 87,769	\$ 3,573,615	8.819	10.319
7	7	Gable Top Over 1 Litre	\$ 3,766,314	24,837,102	15.164	3,586,627	21,250,475	\$ 53,799	\$ 3,712,515	14.947	16.447
8	8	Glass 0 - 1 Litre	\$ 10,533,840	115,720,807	9.103	16,710,783	99,010,024	\$ 250,662	\$ 10,283,179	8.886	10.386
9	9	Glass Over 1 Litre	\$ 923,594	4,578,906	20.171	661,222	3,917,684	\$ 9,918	\$ 913,675	19.954	21.454
10	10	HDPE Plastics Natural Over 1 Litre	\$ 9,668,949	54,953,580	17.595	7,935,629	47,017,951	\$ 119,034	\$ 9,549,914	17.378	18.878
11	11	Industry Standard Bottle	\$ 2,435,638	25,517,958	9.545	-	25,517,958	\$ -	\$ 2,435,638	9.545	9.545
12	12	Liquor and Wine Ceramics	\$ 962	532	180.915	77	455	\$ 1	\$ 961	180.698	182.198
13	13	Molson Coors MGD Refillable 355ml	\$ 247,619	2,571,276	9.630	-	2,571,276	\$ -	\$ 247,619	9.630	9.630
14	14	Moosehead	\$ 37,432	402,215	9.306	-	402,215	\$ -	\$ 37,432	9.306	9.306
15	15	Other Plastics 0 - 1 Litre	\$ 7,349,374	99,007,257	7.423	14,297,246	84,710,011	\$ 214,459	\$ 7,134,916	7.206	8.706
16	16	Other Plastics Over 1 Litre	\$ 2,018,696	11,250,637	17.943	1,624,660	9,625,977	\$ 24,370	\$ 1,994,326	17.726	19.226
17	17	PET 0 - 1 Litre	\$ 32,087,336	538,832,407	5.955	77,810,653	461,021,754	\$ 1,167,160	\$ 30,920,176	5.738	7.238
18	18	PET Over 1 Litre	\$ 7,875,923	53,949,511	14.599	7,790,635	46,158,876	\$ 116,860	\$ 7,759,063	14.382	15.882
19	19	Plastic One-Way Keg Over 1 Litre	\$ 1,862	1,110	167.780	160	950	\$ 2	\$ 1,860	167.563	169.063
20	20	Sleemans Refillable	\$ 40,822	516,792	7.899	-	516,792	\$ -	\$ 40,822	7.899	7.899
21	21	Sleeve-in-a-Box 0 - 1 Litre	\$ -	-	22.960	-	-	\$ -	\$ -	22.960	24.460
22	22	Specialty Containers	\$ -	-	3,149.000	-	-	\$ -	\$ -	3,149.000	3,149.000
23	23	Steam Whistle Refillable	\$ 4,866	51,103	9.521	-	51,103	\$ -	\$ 4,866	9.521	9.521
24	24	Tetra Brik 0 - 1 Litre	\$ 7,998,846	99,748,347	8.019	14,404,264	85,344,083	\$ 216,064	\$ 7,782,782	7.802	9.302
25	25	Tetra Brik Over 1 Litre	\$ 121,896	616,862	19.761	89,079	527,783	\$ 1,336	\$ 120,560	19.544	21.044
26	Total		\$ 140,449,088	2,220,148,847	6.326	316,406,553	1,903,742,294	\$ 4,746,098	\$ 135,702,990	6.112	7.567

## 4.3 Recommended Handling Commissions

After accounting for the Depot Viability Handling Commissions, we have calculated recommended Handling Commissions by container stream. These recommended Handling Commissions are shown alongside current Handling Commissions in Schedule 25.

**Schedule 25: Handling Commission Change**

	Forecast Group	Container Stream	Target Year Volume	Target Year Handling Commissions (¢/container)	Current Handling Commissions (¢/container)	Percent Change	Change in ¢ per container	Deposits (¢/container)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	1	Aluminum 0 - 1 Litre	1,138,960,915	4.208	3.871	8.7%	0.337	10.00
2	2	Bag in Box Over 1 Litre	931,677	34.338	45.566	-24.6%	-11.228	25.00
3	3	Bi-Metal 0 - 1 Litre	2,711,384	15.767	9.589	64.4%	6.178	10.00
4	4	Bi-Metal Over 1 Litre	312,002	31.896	21.166	50.7%	10.730	25.00
5	5	Drink Pouch 0 - 1 Litre	4,156,997	9.849	8.174	20.5%	1.675	10.00
6	6	Gable Top 0 - 1 Litre	40,519,470	8.819	8.014	10.1%	0.805	10.00
7	7	Gable Top Over 1 Litre	24,837,102	14.947	15.466	-3.4%	-0.519	25.00
8	8	Glass 0 - 1 Litre	115,720,807	8.886	9.063	-2.0%	-0.177	10.00
9	9	Glass Over 1 Litre	4,578,906	19.954	18.134	10.0%	1.820	25.00
10	10	HDPE Plastics Natural Over 1 Litre	54,953,580	17.378	18.191	-4.5%	-0.813	25.00
11	11	Industry Standard Bottle	25,517,958	9.545	7.425	28.5%	2.120	10.00
12	12	Liquor and Wine Ceramics	532	180.698	180.515	0.1%	0.183	10.00
13	13	Molson Coors MGD Refillable 355ml	2,571,276	9.630	8.172	17.8%	1.458	10.00
14	14	Moosehead	402,215	9.306	10.100	-7.9%	-0.794	10.00
15	15	Other Plastics 0 - 1 Litre	99,007,257	7.206	5.969	20.7%	1.237	10.00
16	16	Other Plastics Over 1 Litre	11,250,637	17.726	17.147	3.4%	0.579	25.00
17	17	PET 0 - 1 Litre	538,832,407	5.738	5.168	11.0%	0.570	10.00
18	18	PET Over 1 Litre	53,949,511	14.382	14.770	-2.6%	-0.388	25.00
19	19	Plastic One-Way Keg Over 1 Litre	1,110	167.563	205.679	-18.5%	-38.116	10.00
20	20	Sleemans Refillable	516,792	7.899	8.300	-4.8%	-0.401	10.00
21	21	Sleeve-in-a-Box 0 - 1 Litre	-	22.960	22.960	0.0%	0.000	10.00
22	22	Specialty Containers	-	3,149.000	3,149.000	0.0%	0.000	10,000.00
23	23	Steam Whistle Refillable	51,103	9.521	9.808	-2.9%	-0.287	10.00
24	24	Tetra Brik 0 - 1 Litre	99,748,347	7.802	6.017	29.7%	1.785	10.00
25	25	Tetra Brik Over 1 Litre	616,862	19.544	18.753	4.2%	0.791	25.00
26	<b>Total</b>		<b>2,220,148,847</b>	<b>6.112</b>	<b>5.655</b>	<b>8.1%</b>	<b>0.457</b>	

## 5. Comparison to Other Jurisdictions

Alberta's rate and deposit structure has resulted in the highest return rates among Canadian provinces and territories. According to Waste & Recycling Magazine and Reloop<sup>11</sup>, in 2023 Alberta achieved a recycling rate of 85%, putting it ahead of Canada's other leaders, Saskatchewan (84%) and British Columbia (83%). **Table 1** shows the return rates achieved by each province and territory in 2023.

**Table 1: 2016 Provincial and Territorial Recycling Rates<sup>12</sup>**

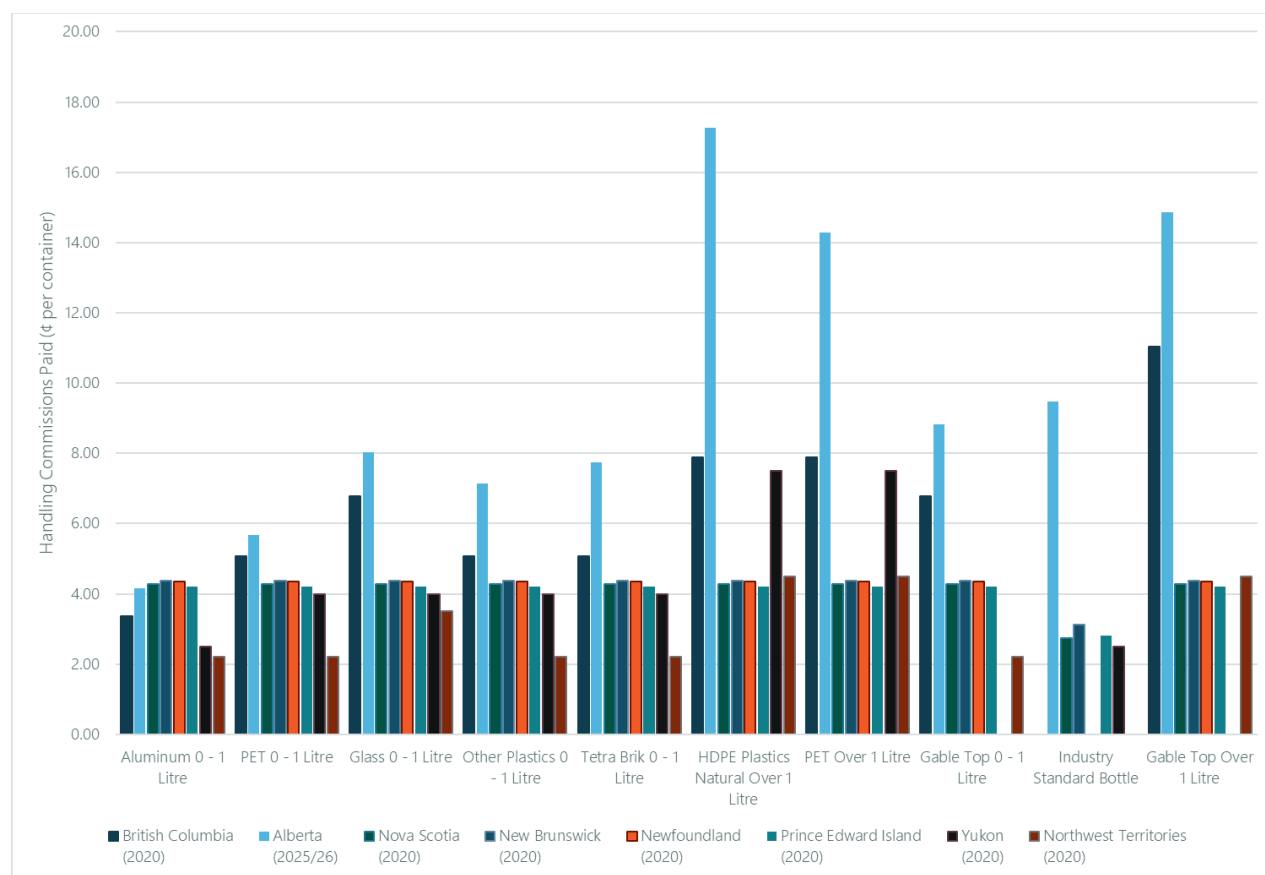
Province	Return Rate
Alberta	85%
Saskatchewan	84%
British Columbia	83%
Prince Edward Island	81%
Nova Scotia	77%
Yukon	76%
Ontario	75%
New Brunswick	72%
Newfoundland and Labrador	69%
Northwest Territories	69%
Quebec	68%

<sup>11</sup> <https://www.reloopplatform.org/resources/maximising-canadas-beverage-container-recycling-potential/>

<sup>12</sup> Rates provided by Waste & Recycling Magazine, <https://wasterecyclingmag.ca/collection/maximizing-canadas-beverage-container-recycling-potential-the-case-for-a-best-in-class-deposit-return-system>

**Figure 2** below summarizes the handling commissions paid for the top 10 container streams by volume in other Canadian provinces and territories. Note that the data for jurisdictions outside of Alberta is from 2020, which is the most current publicly available data.<sup>13</sup>

**Figure 2 – Handling Commissions Paid in Canadian Provinces and Territories**



As shown in this figure, Alberta pays significantly higher handling commissions for several container streams. We believe that the higher rates have helped sustain a viable depot network of 219 depots across the province that works effectively to collect a very high percentage of containers sold in the province.

<sup>13</sup> CM Consulting Inc., Who Pays What 2020, <https://www.cmconsultinginc.com/wp-content/uploads/2021/02/WPW-2020-FINAL-JAN-30.pdf>

## 6. Glossary

Item	Definition
<b>Target Year Revenue Requirement</b>	The amount of money that all Depots as a group must collect through Handling Commissions and Depot Viability Handling Commissions in a given period of time in order to recover prudently incurred costs, expenses, and taxes and to earn a fair pre-tax return.
<b>Beverage Container Management Board (BCMB)</b>	The Beverage Container Management Board (BCMB) was established as a management board under Alberta's Environmental Protection and Enhancement Act. It is also a not-for-profit organization incorporated under the Societies Act of Alberta. The BCMB is responsible for regulating Alberta's beverage container recycling system and leads the development of policy and programs that enable the recycling of beverage containers in Alberta.
<b>Handling Commission</b>	The amount payable for each container collected from a Depot in accordance with section 13(b) of the BCMB's Handling Commission By-law.
<b>Manufacturer</b>	A person who manufactures a beverage and includes: <ul style="list-style-type: none"> <li>• A person who carries on the business of filling containers with a beverage; and</li> <li>• A person who imports a beverage in a container into Alberta for the purpose of distribution or sale in Alberta.</li> </ul>
<b>Pre-Tax Return</b>	The quantum of money to be included in Revenue Requirement which is analogous to pre-tax profit in a non-regulated context and is provided in order to compensate Depot owners.
<b>Return Margin Methodology</b>	A return margin utility model whereby depot return margins are determined based on an analysis of return margins for similar businesses with similar risk profiles.



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