BEVERAGE CONTAINER MANAGEMENT BOARD

Alberta Bottle Depot System

Data Collection Agent

2006 Phase II Report

(2006 Handling Commissions)

January 31, 2007

Revision 1 – Submitted to the BCMB for Approval


HIGH LEVEL
FORT VERMILLION
FORT CHIPEWYAN
LA CRETE
MANNING
FORT MCMURRAY
RED EARTH CREEK
HINES CREEK
PEACE RIVER
FAIRVIEW
SPIRIT RIVER
FALHER
MCLENNAN
SEXSMITH
MCLENNAN
HYTHE
HIGH PRAIRIE
JOUSARD
GRANDE PRAIRIE
BEAVERLODGE
VALLEYVIEW
SLAVE LAKE
LAC LA BICHE
ATHABASCA
SWAN HILLS
BOYLE
COLD LAKE
FOX CREEK
FORT ASSINIBOINE
NEWBROOK
BONNYVILLE
WHITECOURT
WESTLOCK
BARRHEAD
THORHILD
SMOKY LAKE
VILNA
ST. PAUL
LEGAL
REDWATER
ELK POINT
MAPLETHORPE
FORT SASKATCHEWAN
ANDREW
GLENEVIS
TWO HILLS
GRANDE CACHE
MORINVILLE
ONOWAY
ST. ALBERT
GIBBONS
BRIDERHEIM
MYRNAM
NITON JUNCTION
WILDWOOD
SPRUCE GROVE
ANDROSSAN
CLANDONALD
EDSON
EVANSBURG
EDMONTON
SHERWOOD PARK
MARYWAYNE
WABAMUN
STONEY PALIN
INNISFREE
HINTON
DEVON
VERMILION
ALLIANCE
CALMAR
TOFIELD
LLOYDMINSTER
DRAYTON VALLEY
LEDUC
WARBURG
HOLDEN
WETASKIWIN
CAMROSE
VIKING
JASPER
BUCK LAKE
PONOKA
IRMA
RIMBEY
DAYSLAND
KILLAM
WAINWRIGHT
BASHAW
BENTLY
LACOMBE
FORESTBURG
HARDISTY
HUGHENDEN
ALIX
PROVOST
ROCKY MOUNTAIN HOUSE
ECKVILLE
RED DEER
STETTLER
CASTOR
CORONATION
DELBURNE
VETERAN
CONSORT
INNISFAIL
BIG VALLEY
OLDS
TROCHU
SUNDRE
DIDSBURY
THREE HILLS
CRAIGMYLE
HANNA
CARSTAIRS
UNDEN
CARBON
DRUMHELLER
YOUNGSTOWN
WATER VALLEY
CROSSFIELD
BEISEKER
OYEN
LAKE LOUISE
AIRDRIE
COCHRANE
STRATHMORE
CALGARY
BANFF
GLEICHEN
CANMORE
CARSELAND
BASSANO
OKOTOKS
BROOKS
NANTON
VULCAN
VAUXHALL
REDCLIFF
CLARESHOLM
MEDICINE HAT
PICTURE BUTTE
BOW ISLAND
TABER
FORT MACLEOD
COALDALE
BLAIRMORE
LETHBRIDGE
PINCHER CREEK
RAYMOND
FOREMOST
CARDSTON
MILK RIVER

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EXECUTIVE SUMMARY

This report[1] describes the analysis the Data Collection Agent (DCA) performed to allocate the recommended 2006 Revenue Requirement developed in the 2006 Phase I Report Rev 1[2] to the Container Streams and recommends 2006 Handling Commissions. These two reports should be reviewed in consort.

There are five steps used determining Handling Commissions: determination of homogenous customer classes, Cost Functionalization, Cost Classification, Cost Allocation and Rate Design.

The DCA recommends that the 30 existing Container Streams[3] be maintained for the purposes of this Cost of Service study. The DCA proposed cost functions in the 2006 Phase I Report Rev 1 and proposes to maintain those functions in the 2006 Cost of Service study.

The DCA analyzed each cost function and determined that Overhead Labour, Equipment, Buildings, and Overhead should be further classified. Overhead Labour costs were classified into Direct Labour related and other management related costs. Equipment costs were classified into four categories: Sorting/Loading/Cardboard, Building, Office and Collection related costs. Building Costs were classified into three categories: Office/Customer Interface, Sorting and Loading & Storage related costs. Overhead costs were classified into three classes: Business, Building and Volume related costs.

The DCA then determined cost allocators for each cost classification. The DCA determined that Total Container Volume, Total Container Pallets / Bags, Peak Month Volume, Peak Month Pallets / Bags and the results of the multi-variable linear Regression (MVLR) would be reasonable allocators to allocate costs to the Container Streams. As well, in some cases a cost function's aggregate allocation was used to allocate related costs in other cost functions.

The DCA retained Mr. Yuanshun Li, an expert in econometrics, to help test the results from the DCA's MVLR models to allocate Direct Labour costs. The Cal 2006 Direct Labour data does not adequately support the use of a MVLR model. The DCA tested over 100 different combinations of Container Streams in 2 and 3 independent variable models and concluded that the results from the MVLR models could not be used with confidence.

The Direct Labour costs were allocated to the Container Streams based on volume. The non-direct labour classified costs were allocated to the Container Streams using the other cost allocators developed.

After completion of the Allocation step, the DCA studied Rate Design options and concluded that the eight highest volume Container Streams should have derived Handling Commissions that are posted to one-hundredth of a cent. The remaining Handling Commissions should be a

[1] Doc 10-037

[2] Doc 10-036

[3] Active in Cal 2005

minimum of 6¢/container and a maximum of 10¢/container, rounded to the nearest cent from the DCA derived numbers.

The DCA also recommends the implementation of a fixed fee of $1,000 to $2,500 per month per Depot as well as a variable ¢/container fee. The fixed fee amount would increase based on annual return volumes to $2,500/month for all Depots with annual volume over 2 million containers. The DCA proposes that upon return of a container by a Depot, the Manufacturers pay a variable fee to the BCMB and a variable fee to the Depot. Each month, the BCMB will pay the appropriate fixed fee to each Depot. The BCMB may require some working capital to manage the cash flows resulting from volume variances.

The impact of the DCA's proposed allocation methodology directionally results in an increase in Handling Commissions for Pop Cans and Beer Cans, and a decline in Handling Commissions for most other non-beer containers as compared the current Handling Commissions. However, beer container Handling Commissions on the whole increase as all beer Handling Commissions are currently at an interim rate of 2.83¢/container, which is below cost.

Overall, based on Cal 2006 volumes and existing Handling Commissions, the ABCRC containers see a $3.1 million (7%) reduction in total cost, and the ABCC containers see a $5.2 million increase (39%), over 2006.

The recommended 2006 Handling Commissions are shown under Appendix III (last page of this report).

GLOSSARY

1	ABCC	Alberta Beer Container Corporation
2	ABCRC	Alberta Beverage Container Recycling Corporation
3	ABDA	Alberta Bottle Depot Association
4	Allocation	Method of assigning costs to a Container Stream
5	As Adjusted	Refers to fiscal year 2005 UCA costs as recommended by the DCA. As Adjusted costs do not contain any adjustments for escalation or inflation. As Adjusted costs reflect individual Depot costs for their fiscal year ending in 2005.
6	As Reported	Refers to costs that are reported in the Phase I Report that are as reported in Depot 2005 UCA booklets. As reported costs reflect actual individual Depot costs for their fiscal year ending in 2005.
7	BCMB	Beverage Container Management Board
8	BDL	Brewers Distributor Ltd.
9	Cal 2005	Refers to the 12 month period between January and December in 2005.
10	Cal 2006	Refers to the forecast of costs and revenues for the year ending December 31, 2006. These costs are FY 2005 As Adjusted costs escalated or inflated for each individual Depot from their fiscal year ending in 2005 to the calendar year 2006.
11	Classification	Methodology to divide Functionalized costs further to allocate them based on different allocators
12	CNB	Canada's National Brewers
13	Container Stream	Container product type that attracts an individual rate in the Cost Of Service study
14	Cost Incurrence	The phrase that describes if handling a container causes the Depot to incur a cost.
15	Cost of Service	A quantum of money calculated via study to determine the total cost to provide regulated service to a Container Stream

1	CRF	Container Recycling Fee – a charge imposed on retailers by non-beer Manufacturers at the time the retailer purchases a beverage from a Manufacturer. Some retailers show the CRF (e.g. grocery stores) as a separate line item on their cash register printouts, whereas other retailers include the recovery of the CRF in the purchase price and do not identify as a separate item to the consumer (e.g. pop machine).
2	Customer	Any entity that sells empty containers to a Depot.
3	Customer Class	See Container Stream
4	DCA	Data Collection Agent – consultants (Desiderata Energy Consulting Inc.) retained by the BCMB to design the 2005 UCA, collect 2005 UCA data, analyze and summarize the data and report the results to the BCMB. In addition, the DCA was retained to develop a Cost of Service study and propose 2006 Handling Commissions to the BCMB.
5	Depot	Universal Bottle Depots licensed by the BCMB to purchase beverage containers from Customers.
6	Direct Labour	Detailed labour cost information for all employees except administrative employees and Owners or shareholders. Costs relate to all employees whose primary function is to work on the Depot floor or collect containers contribute to Direct Labour.
7	EBT	Earnings Before (Income) Taxes
8	Functionalization	Methodology for splitting the Total System Revenue Requirement into generally homogenous cost categories
9	Handling Commission	Amount paid to Depots by Manufacturers for the collection and sorting of a beverage container.
10	HCRP	Handling Commissions Review Panel – BCMB appointed panel responsible for adjudicating and make a recommendation on Handling Commissions.
11	ISB	Industry Standard Bottles - beer bottles that are re-used.
12	Large Depot	Depot that has a Cal 2005 collection volume greater than 5,000,000 containers.
13	Manufacturer	Manufacturer representative, either ABCRC or ABCC, the agencies who buy containers from Depots.

1	OLS	Ordinary Least Squares – Another name for a linear regression model.
2	R^2	A measure of best fit of a Regression line between scattered data points. It is measured between 0 and 1 where 1 implies perfect correlation and 0 implies no correlation among the data points.
3	Rate Design	The methodology that structures a rate that will result in a reasonable opportunity for the Container Stream to pay the Container Stream Revenue Requirement as determined in the Cost Allocation study.
4	Rate Class	Synonymous with Container Stream.
5	Regression	The relationship between the value of a random variable and the corresponding values of one or more independent variables. The 2006 Phase II Report uses linear Regression where a best fit line is found that minimizes the sum of the squares of the y-axis distance from each data point to the best fit line.
6	Revenue Requirement	The total amounts of money that the beverage container return industry must collect in revenues such that the Depots have a reasonable opportunity to pay prudently incurred expenses and have a reasonable opportunity to earn a fair Return.
7	Return	A notional amount added to the Revenue Requirement to provide additional revenue to Depots that will allow each Depot a reasonable opportunity to earn a fair profit.
8	Small Depot	Depot that has Cal 2005 collection volume less than 5,000,000 containers.
9	Stantec	Stantec Consulting Ltd. acting in its previous role of DCA under contract to the BCMB.
10	System Cost	A cost that is prudently incurred for provision of regulated service.
11	Total System	All 215 licensed Depots in Alberta with return volumes in Cal 2006.
12	UCA	Uniform Code of Accounts – Report that must be filled out by all Depots reporting their financial and operating results.
13	Universal Bottle Depots	215 bottle Depots licensed by the BCMB to take back all empty registered beverage containers.

1.0 BACKGROUND / DESCRIPTION

1.1 INDUSTRY BACKGROUND

Please refer to Section 1.1 of the report entitled 2006 Alberta Bottle Depot System Data Collection Agent Phase I Report Rev 1 ("the 2006 Phase I Report Rev 1") dated January 31, 2007 for a discussion of the industry background.[4]

1.2 BACKGROUND OF PROJECT

The Final Straw Dog report[5] contemplated a two-part process to obtain 2005 Handling Commissions. The first part (Phase I) involved the collection of Depot costs and revenues and the development of the 2006 Revenue Requirement.

The second part of the process outlined in the Final Straw Dog report involves allocating the forecasted costs of the Total System to the various Container Streams and then designing rates (Handling Commissions) that will ensure that Depots in aggregate have a reasonable chance to recover the total forecasted costs (Phase II).

This approach was taken for the Alberta Bottle Depot System - Data Collection Agent 2006 Phase II Report Rev 0.

1.3 REPORT OUTLINE

There are five steps required to create end-use Handling Commissions:

1. Divide all Container Streams into container groups of similar usage patterns and characteristics (Forecast Groups).

2. Functionalization - The total system 2006 Revenue Requirement is functionalized into cost categories.

3. Classification – Each cost function is analyzed to determine whether further cost separation is warranted.

4. Allocation – Each functionalized / classified cost category is allocated to each Forecast Group on the basis of determined cost drivers to determine 2006 Revenue Requirement by Forecast Group.

5. Rate Design – A rate is determined for each Container Stream.

The BCMB currently has 35 Container Streams, with a Handling Commission associated with each stream.[6] For several Container Streams, the Handling Commission is the same. In

[4] Doc 10-037. These documents can now be viewed by registered users on the BCMB's web site. Please contact the BCMB to obtain access.

[5] Doc 01-003, p. 3.5

addition, some Container Streams (or Product Names) are no longer in use. The DCA identified 31 Container Steams that had return volumes in 2005. Further, the DCA has grouped these 31 Container Streams into 27 Forecast Groups. Throughout this report the DCA analyzed the data by the Forecast Groups. Although containers were grouped for different purposes through the Phase II process, the DCA has developed a Handling Commission for each of the existing 27 Forecast Groups, and then applied the resulting Handling Commission to each Container Stream within each Forecast Group.

The rationale for this approach is that there are a few Container Streams that have very small volumes and are commingled with large Container Streams. For example, in 2005 there were a few Big Rock Bottles in the system that were not commingled with ISB. These two beer bottle Container Streams are treated as one Forecast Group, number 4.

Another example is that Glass 0 - 500 ml and Glass 501 - 1 Litre were commingled into Glass 0 - 1 Litre effective January 1, 2006. These three glass Container Streams are treated as one Forecast Group, number 5.

Section 2 reviews the functionalization of costs that was completed as part of the 2006 Phase I Report Rev 1.

Section 3 discusses the need for further classification of the costs into smaller classes to better group similar types of costs into similar or new cost classes.

Section 4 discusses the processes used to allocate the functionalized costs to the Forecast Groups. This is the key step in the process towards developing a Handling Commission for each of the 27 Forecast Groups.

Section 5 discusses Rate Design and presents some options and recommendations to provide a fair tariff structure that recognizes the fundamentally different cost environments faced by Small and Large Depots.

Section 6 provides an analysis of the impact of the proposed Handling Commissions on both Manufacturers and Depots.

Section 7 provides the DCA's conclusions and recommendations for 2006 Handling Commissions.

1.4 RATE DESIGN PRINCIPLES

The DCA notes the following fundamental Rate Design principles, as espoused by James C. Bonbright,[7] and adopted by regulators the world over. Bonbright initially developed eight criteria

[6] Doc 10-036, 2006 Phase I Report Rev 1, Appendix III

[7] The Regulation of Public Utilities, Charles F. Philips, Jr., 1998, Pg. 410-411. Stantec notes that in 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

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.

A review of these ten criteria and how the DCA sees their application to the determination of Handling Commissions may provide the reader greater insight into methodologies the DCA has employed and the recommendations made in this report:

1. The application must be practical with such attributes as: simplicity, understandability, public acceptability and ease of application.

   The existing Handling Commissions are relatively simple (¢/container); easy for both the Interested Parties and the public to understand and are applied by the Manufacturers through their financial systems. The proposed 2006 Handling Commissions should maintain these attributes and should not result in a significant departure that would cause confusion or significant modifications to the Manufacturer's financial systems.

2. Freedom from controversies as to proper interpretation.

   Unlike some complicated rate structures, the current Handling Commission is relatively simple and should not result in controversies over proper application or interpretation. Similarly, the proposed 2006 Handling Commissions rate structure should be clearly defined to ensure that there are no controversies as to proper interpretation.

3. Effectiveness in yielding total Revenue Requirement under the fair return standard.

   The application of the Handling Commissions to the actual volume of containers collected should result in payments to Depots that are representative of the forecast cost of operating the Depots. The fair return standard is interpreted by the DCA to mean that each Depot (regardless of size, location, etc.) has the opportunity to earn a fair Return if the Depot is operating in an industry standard manner. Those Depots that are more efficient than the industry standard average have the opportunity to earn an above average Return, and those less efficient should earn a less-than-average Return.

   The current ¢/container Handling Commissions do not differentiate between low and high volume Depots – the inherent assumption in such a rate is that the costs incurred by Depots are directly proportional to the volume of containers collected (i.e. all costs are variable). The DCA is of the view that since Depots have some fixed costs (e.g. buildings) and some variable costs (e.g. direct labour) payment via the Handling Commissions on a purely variable basis may violate criteria 3.

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

4. Revenue stability from year to year.

   Appropriate 2006 Handling Commissions should result in the Depots receiving revenue that is relatively consistent from year-to–year, subject to product mix changes and general volume growth.

5. Rate stability from year to year.

   Appropriate 2006 Handling Commissions should result in each Manufacturer paying a relatively consistent rate from year to year. Many regulators use the concept of "rate shock" to define a maximum rate increase or decrease that can be imposed from year to year. The concept is one of gradualism.

   For example, the DCA's study may determine that the Handling Commission for a specific Container Stream should be increased materially from current levels. Even though the current process may suggest that a significant rate increase is warranted, the actual rate increase for 2006 could be tempered, with additional rate increases applied gradually over a number of years.

   Rate Design is part science and part art, which can produce radically different end use rates depending on the underlying methodologies and assumptions used. Applied gradualism ensures that a "new" approach, that may produce significantly different results from those existing, is implemented over a number of years to ensure that the new approach has longer-term acceptability.

6. Fairness of the apportionment within the rates of the total Cost of Service among the different customers.

   This is a key criterion for the Phase II process. The recommended 2006 Revenue Requirement should be allocated (apportioned) to the Container Streams in a fair manner.

   The allocation method(s) used should relate to the actual Depot operations and appropriately allocate costs to the Container Streams that cause the costs to be incurred. For example, if a Container Stream is more difficult to handle and sort (i.e. large, bulky, heavy, etc.) then a greater portion of the costs should be allocated to it.

7. Avoidance of "undue discrimination" in rate relationships.

   "Undue discrimination" is another term for discriminatory pricing, or the setting of rates that discriminate against certain customers by setting prices that do not accurately reflect costs. In context, this means that the Handling Commissions should accurately reflect costs. The ability to accurately reflect costs is limited by the types and quality of data available to allocate costs.

   For example, if data were available on the volume of containers that entered the Depot each day, then, coupled with the manufacturer's shipping data, the DCA could perform an evaluation of the quantum of containers that are present in the Depot at any given time. An "inventory turn" analysis could be used to allocate storage costs

and perhaps also be used to value shrinkage (containers lost due to breakage, theft, etc.).

We are of the view that "undue discrimination" will not occur if costs are allocated to the Container Streams in a fair and rational manner, in light of the data available and observations of actual Depot operations.

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

The BCMB currently has 35 active Container Streams. While the 35 Container Streams are given, the DCA feels that it is appropriate to combine certain Container Streams for the purpose of determining Handling Commissions. While the DCA will recommend a Handling Commission for each Container Stream, the determination of the Handling Commissions may involve the allocation of costs to containers with similar qualities / properties (Forecast Groups). In addition, a few active Container Streams have negligible forecast return volumes for 2006, which limits our ability to determine a meaningful Handling Commission for those streams.

For example, aluminum beer cans and aluminum pop cans may be combined into a single aluminum can class for some cost allocation steps as there may be no discernable difference in some aspects of the Depot operation. When allocating forklift costs, the cost to load a bag of aluminum beer cans or a bag of aluminum pop cans is likely identical, therefore combining into a single larger class may be appropriate.

The DCA is of the view that "efficiency of the rate classes in discouraging wasteful use of service" means that the categorization of containers into the BCMB's Container Streams will not result in Depots refusing to handle certain containers. Given the logical classification by the BCMB and the regulated requirements for the Depots to handle all beverage containers, there should be no issue with "wasteful use of service". As well, this principle would assign full costs to each rate class such that all rate classes pay the full cost of the handling of their container. In this instance, there would be no incentive for Manufacturers to use containers that impose high costs to the return system because of abnormally low Handling Commissions.

"Rate blocks" are often used in utility rates for the collection of fixed costs from customers or to otherwise recognize economies of scale. For example, some utilities use a customer charge to collect the fixed costs of billing or offer lower prices for larger consumption quantities to reflect the lower costs associated with high volume use.

9. Rates should promote economic efficiency

In general, economic efficiency occurs when the cost of producing a given output is as low as possible. In context, economic efficiency means that the cost (including Return) of handling each beverage container should be as low as possible whilst

maintaining the viability of the system. Therefore, effective Handling Commissions should provide the incentive for Depots to minimize their costs.

The DCA considers that the profit motive of Depots should result in Depots keeping their costs as low as possible. The Handling Commissions should not be structured in a manner that would diminish the Depot's profit motive. An example of economically inefficient rates would be if the Handling Commission paid Depots a flat fee per month, regardless of how many containers were collected.

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

In the context of utility pricing, this principle would ensure that any cost or benefit not relating directly to the service provided would be considered in the price. In the utility context, an example might be to include reclamation costs in the price to ensure that the price charged reflects the fact that reclamation, although it may happen years from now, is a cost resulting from current consumption. In some respects this principle relates to matching all costs incurred as a result of current consumption with the price charged for the current consumption.

The DCA has not identified any costs of internalities and externalities of the nature referred to above.

2.0 FUNCTIONALIZATION OF COSTS

In the 2006 Phase I Report Rev 1 the 2005 UCA reported costs were functionalized into the following main cost categories. The recommended Cal 2006 Total System Revenue Requirement amounts for each cost function are shown in Schedule 1.0, Appendix I and below:

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
REVENUE REQUIREMENT

Line #	(a)	(b) Revenue Requirement ($)
1	Direct Labour	$27,742,427
2	Overhead Labour	$7,779,143
3	Building	$9,402,541
4	Equipment	$3,258,430
5	Overhead	$6,585,917
6	Return	$3,279,253
7	Income Tax	$2,981,108
8	Less: Miscellaneous Revenue	-$1,012,495
9	Cal 2006 Revenue Requirement	$60,016,324

The DCA proposes to maintain these functions for the purposes of determining Handling Commissions.

3.0 CLASSIFICATION OF COSTS

3.1 INTRODUCTION

In the next step of the Phase II process, some functionalized costs must be further classified. In order to allocate costs appropriately it is necessary to analyze Depot operations and determine what we believe to be the primary cost drivers for each cost category. For some cost categories, functionalized costs are further classified into cost classes. The amounts classified into cost classes were then allocated to the various Container Streams using different allocation drivers.

For example, consider Building costs. A typical Depot building serves many different functions – it provides an area where customers can drop off their containers and receive their refunds, an area where the containers are sorted, stored and loaded onto trucks and an area for offices and employees (lunch room, washrooms, etc.). The costs associated with these different areas of the building may be allocated differently to the Container Streams using different allocation drivers.

Further, consider the storage of containers awaiting shipment. Container steams that are bulky and take up more storage space should be allocated more of the building costs associated with storage. Also, Container Streams that have longer wait times for shipment to the Manufacturers should be allocated more of the Building storage costs than Container Streams that are shipped out more quickly. Since a cost driver for building storage space is the amount of space the bags and pallets awaiting shipment require, it may be appropriate to allocate building storage space costs based on some type of measure of the maximum storage space each Container Stream utilizes.

In order to properly allocate costs in the next stage of the 2006 Phase II process (Section 4 below), it is first necessary to classify certain cost categories into smaller cost classes.

3.2 DIRECT LABOUR

Direct labour is a reasonably homogenous cost category. All labour costs associated with the handling of containers was functionalized to Direct Labour as described in the 2006 Phase I Report Rev 1. The DCA is of the view that classification of Direct Labour is not required to appropriately allocate costs to the Container Streams.

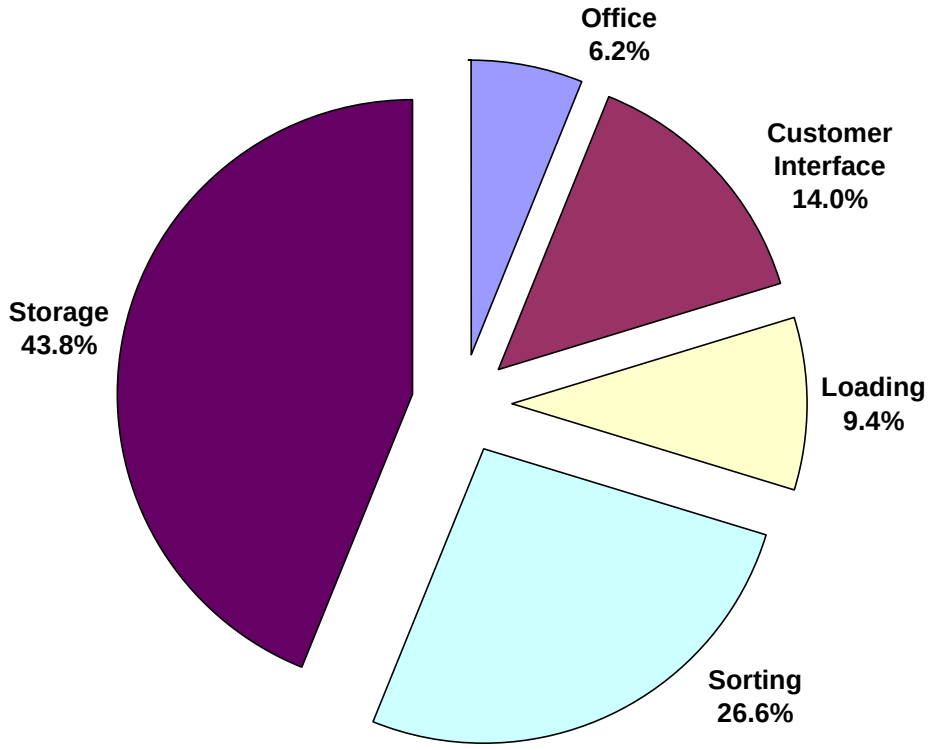
3.3 OVERHEAD LABOUR

Overhead labour is also a reasonably homogenous cost category. All management related labour costs associated with the supervision of employees and overseeing the operation of the Depots were functionalized to Overhead Labour as described in the Phase I Report. However, the DCA is of the view that Overhead Labour is partly related to the management of Direct Labour, and partly related to the management of the other aspects of the business. Therefore, we have classified Overhead Labour 50/50 such that 50% of the costs are related to Direct Labour, and 50% are related to other management functions.

3.4 BUILDINGS

Section 4.7.1 of the 2006 Phase I Report Rev 1 contained the aggregate results from 147 Depots that reported on Table 5-a of the 2005 UCA an allocation of building space to different functions. The aggregate square footage of the 147 reporting buildings showed the following percentages for five building space categories:

Reported Use of Depot Building Space



For the Phase II process the DCA has used this data to classify these costs into three main Building Space Classes:

1. **Customer Interface / Office** – portion of the buildings where customers bring their containers into the Depot, which includes the waiting area, interface with the cashier and the Depot's offices (including offices, office storage, lunch room, washrooms, etc.).

2. **Sorting** – portion of the buildings where the containers are sorted, temporarily stored and then placed in larger containers (bags) or on pallets. When the bag or pallet is full, they are moved to storage to await shipment to the Manufacturers.

3. **Storage & Loading** – portion of the buildings where bags and pallets ready for shipment are stored, including the area used to load the bags and pallets onto trucks for shipment to the Manufacturers.

The total building costs were classified into the following three Building Space Classes using the reported use of Depot building space data:

Reported Use of Depot Building Space		Cal 2006 Building Costs
Office / Customer Interface	20.1%	$1,894,203
Sorting	26.6%	$2,501,479
Loading & Storage	53.3%	$5,006,859
	100.0%	$9,402,541

3.5 EQUIPMENT

In the 2006 Phase I Report Rev 1, Equipment related costs were functionalized as Equipment Owned (annual amortization expense and interest on loans), as Equipment Leased (annual lease payments) and as Operating Costs (vehicles and equipment). For the 2006 Phase II process, the DCA felt that the classification of the equipment by type (and use) was required to better allocate costs to the Container Streams.

The classification of equipment related costs by type of asset (office equipment, forklift, etc.), and hence a determination of the cost driver for each type of asset, required a manual review of the Description of the equipment reported on Tables 6-a, the Type of Equipment reported on Table 6-b and the CCA Class and /or Description of the equipment reported on Tables 8 of the 2005 UCA documents. For each description given, the DCA assigned one of the following four Equipment Classes:

1. **Sorting / Loading / Cardboard** – equipment costs related to sorting (e.g. sorting tables, conveyors, can counters, etc.), loading bags or pallets onto trucks (e.g. forklifts, pallet jacks, etc.) or cardboard (e.g. cardboard crushers).

2. **Building** – equipment costs related to the occupied building (e.g. landscape equipment (lawnmowers), alarm systems, etc.).

3. **Office** – equipment costs used in the office portion of the Depot (e.g. computers, cash registers, office furniture, etc.)

4. **Collection** – equipment related costs for the collection of containers from outside the Depot (e.g. vehicles)

For the owned equipment assets, the DCA asked Depots to classify by CCA class. Upon review of the CCA class data obtained, we found that certain types of equipment were reported in several CCA classes.[8] The DCA is of the view that its manual review of descriptions will provide a reasonably accurate classification of equipment costs.

The Cal 2006 Equipment costs were reported in the 2006 Phase I Report Rev 1 under CCA & Loan Interest, Lease Payments and Operating Costs.

[8] For example, Depot equipment (e.g. cardboard crushers) were often found under CCA Class 10 – vehicles.

	Cal 2006 Study System	Cal 2006 Total System	CCA & Loan Interest	Lease Payments	Operating Costs
Equipment					
CCA	$376,186	$486,665	$486,665		
Loan interest	$25,579	$33,091	$33,091		
Lease payments	$264,208	$341,801		$341,801	
Operating Costs	$218,406	$282,547			$282,547
	$884,379	**$1,144,104**	**$519,756**	**$341,801**	**$282,547**
Vehicle					
CCA	$262,101	$339,076	$339,076		
Loan interest	$2,048	$2,649	$2,649		
Lease payments	$76,963	$99,566		$99,566	
Operating Costs	$1,293,235	$1,673,034			$1,673,034
	$1,634,348	**$2,114,325**	**$341,725**	**$99,566**	**$1,673,034**
Total	**$2,518,727**	**$3,258,430**	**$861,481**	**$441,367**	**$1,955,582**

For each cost category, the DCA manually reviewed each Table 6-a, Table 6-b and Table 8 2005 UCA entry and assigned each As Reported cost to one of the four Equipment Cost Classes noted above. The allocators are shown in the table below:

Equipment Cost Class	Table 6-a CCA	CCA & Loan Interest	Table 6-b Lease	Lease Payments	Operating Costs	Total
Sorting / Loading / Cardboard	42.0%	$361,659	38.6%	$170,167	$282,547	$814,373
Building	6.6%	$57,045	1.6%	$7,154		$64,200
Office	16.3%	$140,146	18.0%	$79,456	$418,259	$637,861
Collection	35.1%	$302,630	41.8%	$184,590	$1,254,776	$1,741,996
	100.0%	$861,481	100.0%	$441,367	$1,955,582	$3,258,430

3.6 OVERHEAD

The different Overhead cost categories are shown on Schedule 7, Appendix I of the 2006 Phase I Report Rev 1. The DCA has classified the Overhead costs into the following three Overhead Cost Classes:

1. **Business Related** – Overhead costs that are related to the operation of the Depot business.

2. **Building Related** – Overhead costs that are related to the operation of the Depot's building or leased premise.

3. **Volume Related** – Overhead costs that are related to the number of containers processed.

The Overhead cost categories were classified into the three Overhead Cost Classes as follows:

Sub-Functionalization of Overhead Costs

Overhead Cost Categories	FY 2005 As Adjusted	Comments	Overhead Cost
Overhead - Office			
Office Expenses	$353,764		Business
Shop Supplies	$377,065		Building
Telephone	$431,819		Business
Charitable Donations	$0	excluded	Business
Internet	$10,824		Business
Bank Charges	$235,394		Business
Professional Fees (Accounting/Legal)	$431,596		Business
Training Courses (3rd Party)	$14,986		Business
Marketing and Promotions	$178,862		Business
Advertising	$316,035		Business
Other Insurance (non-property)	$242,597		Business
Municipal Taxes & License Fees	$200,182		Business
Other Office costs	$136,389		Business
	$2,929,512		
Overhead - Fees			
BCMB Fees	$497,695		Volume
ABDA Fees	$153,414		Volume
	$651,109		
Overhead - Other			
Non-labour collection costs (e.g. contractors)	$25,789		Volume
Deposit incentives	$10,405		Volume
Shrinkage	$137,243		Volume
Other costs	$283,160		Volume
	$456,597		
Overhead - Table 9			
Table 9 Collections costs	$365,355		Volume
Table 9 Cash & Shrinkage	$705,290		Volume
	$1,070,645		
TOTAL	**$5,107,864**		

1 The classified Cal 2006 Overhead costs are the following:

Overhead Cost Class	FY 2005 As Adjusted	% of Total	Cal 2006 Total System
Business	$2,552,447	50.0%	$3,291,044
Building	$377,065	7.4%	$486,176
Volume	$2,178,351	42.6%	$2,808,697
	$5,107,864	100.0%	$6,585,917

2 3.7 RETURN AND INCOME TAX

3 Return and Income Tax expense is a homogeneous cost category. The DCA is of the view that
4 classification of Return and Income Tax is not required to appropriately allocate costs to the
5 Container Streams.

4.0 ALLOCATION OF COSTS

4.1 COST ALLOCATORS

The allocation of functionalized or classified costs to the Container Streams is a key step in determining Handling Commissions. There are numerous different methodologies for allocating costs. For example:

- Variable cost allocators – variable costs are allocated based on usage, e.g. forklift related costs may be allocated to the number of pallets or bags of each Container Stream shipped. The premise is that each pallet or bag moved from storage to the manufacturer's truck for transport has the same costs (operation and maintenance, fuel, depreciation, etc.) and therefore costs can be allocated to the number of pallets or bags shipped of each Container Stream.

- Fixed cost allocators – fixed costs are allocated based on the maximum usage, which is often referred to as "demand" in utility applications. The premise is that fixed or capital assets are built to provide service for the maximum use and therefore the customers using the assets at the time of the maximum use should pay for the fixed costs. For example, forklift related capital costs could be allocated to the number of pallets or bags of each Container Stream shipped at the time when the maximum number of shipments occurs (e.g. the week after the July long weekend). The premise is that forklifts are purchased with a capacity (size and speed) to accommodate the busiest time of the year. Therefore the fixed capital related costs (amortization) can be allocated to the number of pallets or bags shipped of each Container Stream during the busiest time (day, week or month) of the year.

- Category allocators – costs can simply be allocated by the number of Customer Classes. For example, Depot office related costs could be allocated equally to each Forecast Group, i.e., $1/27^{th}$ of the office related costs allocated to each of the 27 Forecast Groups. This allocator works well typically when the Customer Classes have a relatively equal Cost Incurrence that is not dependant on volume. The DCA is of the view that there are no types of costs that should be allocated equally to the 27 Forecast Groups.

- Volume allocators – costs that have both a variable and fixed component can be allocated based on volume or usage. For example, vehicle related costs are made up of variable components (fuel, maintenance, etc.) and fixed components (amortization or lease payments). However, vehicle costs are often allocated based on volume (¢/km charge) regardless of the distance traveled or the type of service (city or highway, number of passengers, weight hauled, etc.). In context, vehicle costs used for business purposes related to a single Container Stream could be allocated to a specific Container Stream by using a ¢/km charge and the number of km traveled, if one could forecast mileage by Container Stream.

- Peak Volume allocators – similar to a volume allocator, however, in this instance the costs to be allocated tend to be more fixed in nature and the peak volume over a given period is used as a proxy for a more fixed allocator.

Allocators can take on many different forms. The limiting factor in the use of an allocator is the underlying data or information available to properly apply the allocators to Container Streams. While a peak volume allocator for truck related costs may be preferable, it is unlikely that the truck operator has tracked the weight of each load over the course of the year to allow for the determination of the busiest week of the year and the application of the allocator. Data availability and simplicity often leads to simpler allocators like vehicle costs allocated based on distance traveled.

The DCA has analyzed and tested a number of different allocators to allocate the recommended Phase I Report costs to the Container Streams. The following key principles were used in the selection of the allocators used:

1. The underlying data is available and considered valid (from a large enough sample set, collected and verified through the 2005 UCA process or from a reliable third party source).

2. The allocator reflects the need for the cost to be incurred in order for the Depot to perform the tasks required.

3. The allocator used is relatively intuitive from our observations of Depot operations.

The allocators the DCA has elected to use and recommends are:

1. Direct Labour Regression

As noted under section 3.3 of the Process Documents Version III,[9] the DCA recommends the use of a multi-variable linear Regression (MVLR) equation to allocate direct labour costs to the Container Streams.

A MVLR equation is of the form:

$$y = m_1x_1+m_2x_2 \ldots m_xx_x + b$$

Where:

y	= labor hours
m_1, m_2, m_x	= labor use rate coefficient (containers per labor hour)
x_1, x_2, x_x	= Container Stream
b	= constant value

The resulting coefficients of the Regression will give insight as to the amount of time each Container Stream requires to be handled. This information could then be used to allocate labour costs.[10]

This direct allocator will use statistical methods to allocate direct labour costs to the Container Streams. The premise is that from the data collected through the 2005 UCA

[9] Doc 01-013, p. 3.7

[10] ibid

process there will be certain Depots that will have higher direct labour costs due to the handling of a greater portion of containers that take more time to sort and process (may be bigger, bulkier, heavier, etc.). From the variations in the mix of direct labour hours and the number of containers processed of each type, we were hopeful that a statistically valid model could be developed.

2. Total Container Volume

The volume allocator is general in nature and was used to allocate costs based on the Cal 2006 Total System forecast volume for each Forecast Group. Certain costs cannot be differentiated as fixed or variable due to limited UCA information (e.g. office use costs) or are relatively small in quantum (e.g. accountant costs). Other costs are directly related to volume, for example ABDA and BCMB fees.

The Total Container Volume allocator was used to allocate costs to each Container Stream in direct proportion to the 2006 forecast volume of each Container Stream. For example, if the 2006 forecast volume for Container Stream A is 30% of the total 2006 forecast volume, Container Stream A was allocated 30% of the related costs.

The allocators for Total Container Volume are as follows based on the 2006 volume forecast:

Forecast Group	ID	Cal 2006 Total Volume	Total Container Volume %
Pop Cans	1	394,070,893	27.578%
Beer Cans	2	315,810,552	22.101%
PET 0 to 1 l	3	247,387,848	17.313%
Beer Bottles	4	150,299,592	10.518%
Glass 0 to 1 l	5	99,552,664	6.967%
Tetra 0 to 1 l	6	73,819,357	5.166%
PET Over 1 l	7	54,360,485	3.804%
Import Beer	8	53,659,131	3.755%
Glass Over 1 l	9	7,565,146	0.529%
Gable 0 to 1 l	10	7,535,924	0.527%
Drink Pouch	11	5,095,994	0.357%
HDPE Over 1 l	12	3,379,532	0.237%
Polycups	13	2,965,421	0.208%
Bi Metal 0 to 1 l	14	3,393,950	0.238%
HDPE 0 to 1 l	15	1,662,362	0.116%
Bi Metal Over 1 l	16	822,270	0.058%
Gable Over 1 l	17	627,420	0.044%
Bag in Box	18	244,536	0.017%
Tetra Over 1 l	19	35,833	0.003%
PVC Over 1 l	20	69,688	0.005%
Polypropylene	21	283,290	0.020%
PVC 0 to 1 l	22	43,996	0.003%
Other	23	566	0.000%
Sleemans	24	6,180,960	0.433%
Import Beer PET 0 to 1 l	25	4,752	0.000%
Import Beer (Bi-Metal)	26	66,472	0.005%
Imports 0 to 1 l	27	14,664	0.001%
		1,428,953,298	100.000%

Note that the first eight Forecast Groups constitute more than 97% of the total forecast volume.

3. Total Container Pallets / Bags

Similar to Total Container Volume, some costs can be allocated based on total container pallets or bags.[11] The premise is that certain costs, like building storage, are related to the amount of space the bags or pallets require. There are a certain number of containers of each Container Stream that are stored on a pallet or in a shipping bag. Large containers take up more room (space) and therefore should be allocated a greater proportion of costs related to building storage.

The DCA has determined the number of pallets or bags shipped based on data provided by the Manufacturers. The DCA understands that partial pallets or bags are often shipped, especially from the lower volume Depots or for lower volume Container Steams. The DCA has calculated and included the number of partial pallets or bags shipped.

The DCA has two options to generate a forecast of the number of pallet or bags by Forecast Group for Cal 2006:

1. Divide the forecast volume for each Forecast Group by the notional number of containers that are shipped in each pallet or bag, assuming each pallet or bag is full.

2. Use actual 2005 statistics where the actual number of pallets or bags per Forecast Group can be derived and divide this statistic by the Cal 2006 forecast.

The DCA is of the view that option 2 is the most appropriate as it appears that there are a number of partially full pallets and bags that are shipped each year (or low volume containers are shipped in the smaller G3 or One-Way bags). The following table shows actual Cal 2005 statistics and the notional number of containers for a full pallet or bag.

[11] Most non-beer containers in 2006 were shipped in one cubic meter bags; however, Industry Standard Bottles and Sleemans bottles were shipped on pallets. For container streams that have small volumes, partial bags or smaller G3 or One-way Bags are used.

Forecast Group	ID	Cal 2006 Containers per Pallet or Bag	July 2006 Containers per Pallet or Bag	Notional Containers per Full Pallet or Bag	Notional for Cal 2006 Containers (percent full)
Pop Cans	1	1,797	1,797	1,800	99.8%
Beer Cans	2	1,799	1,799	1,800	100.0%
PET 0 to 1 l	3	837	837	840	99.6%
Beer Bottles	4	2,005	2,004	2,016	99.5%
Glass 0 to 1 l	5	801	800	606	132.2%
Tetra 0 to 1 l	6	1,177	1,178	1,200	98.1%
PET Over 1 l	7	299	299	300	99.8%
Import Beer	8	687	687	720	95.4%
Glass Over 1 l	9	191	190	210	90.9%
Gable 0 to 1 l	10	286	288	300	95.5%
Drink Pouch	11	1,143	1,143	1,890	60.5%
HDPE Over 1 l	12	137	137	168	81.8%
Polycups	13	2,411	2,382	5,250	45.9%
Bi Metal 0 to 1 l	14	716	700	1,260	56.8%
HDPE 0 to 1 l	15	697	687	2,400	29.1%
Bi Metal Over 1 l	16	233	234	360	64.6%
Gable Over 1 l	17	235	244	600	39.2%
Bag in Box	18	64	65	108	59.4%
Tetra Over 1 l	19	283	274	420	67.5%
PVC Over 1 l	20	47	51	168	28.2%
Polypropylene	21	274	264	1,260	21.7%
PVC 0 to 1 l	22	225	214	420	53.5%
Other	23	181	94		
Sleemans	24	1,296	1,287	1,440	90.0%
Import Beer PET 0 to 1 l	25	336	339	840	40.0%
Import Beer (Bi-Metal)	26	407	386	1,260	32.3%
Imports 0 to 1 l	27	813	733	1,728	47.1%

As can be seen from the above table the high volume Forecast Groups are typically shipped in a full bag or on a full pallet, whereas the smaller volume Forecast Groups have percentages less than 100% suggesting a considerable number of bags are not full or smaller volume shipping containers are used. The DCA is of the view that this is an important result for the allocation of costs using allocators based on the number of pallets or bags. For lower volume containers that have partially full pallets or bags that take up space in Depots, higher costs should be allocated to them.

The allocators for Total Container Pallets / Bags are as followed based on the number of containers per pallet or bag and the Cal 2006 forecast by Forecast Group.

Forecast Group	ID	Cal 2006 Total Container Pallets	Container Pallets Allocator %
Pop Cans	1	219,312	16.446%
Beer Cans	2	175,517	13.162%
PET 0 to 1 l	3	295,692	22.174%
Beer Bottles	4	74,949	5.620%
Glass 0 to 1 l	5	124,334	9.324%
Tetra 0 to 1 l	6	62,722	4.704%
PET Over 1 l	7	181,650	13.622%
Import Beer	8	78,152	5.861%
Glass Over 1 l	9	39,642	2.973%
Gable 0 to 1 l	10	26,311	1.973%
Drink Pouch	11	4,459	0.334%
HDPE Over 1 l	12	24,604	1.845%
Polycups	13	1,230	0.092%
Bi Metal 0 to 1 l	14	4,742	0.356%
HDPE 0 to 1 l	15	2,384	0.179%
Bi Metal Over 1 l	16	3,536	0.265%
Gable Over 1 l	17	2,669	0.200%
Bag in Box	18	3,812	0.286%
Tetra Over 1 l	19	126	0.009%
PVC Over 1 l	20	1,474	0.111%
Polypropylene	21	1,034	0.078%
PVC 0 to 1 l	22	196	0.015%
Other	23	3	0.000%
Sleemans	24	4,768	0.358%
Import Beer PET 0 to 1 l	25	14	0.001%
Import Beer (Bi-Metal)	26	163	0.012%
Imports 0 to 1 l	27	18	0.001%
		1,333,516	100.000%

Although the first eight Forecast Groups constitute over 97% by volume, these same Forecast Groups are only 90% of the total number of pallets or bags.

Comparing the two tables above, one can see that larger containers are allocated a greater portion of the costs under the Total Container Pallets / Bags allocator. For example, PET >1L bottles (e.g. large 2 litre plastic pop bottles) are 3.8% by volume, however, they are over 13.6% by pallets shipped. This result occurs because a shipping bag of PET >1L bottles contains only 300 containers, whereas a shipping bag of aluminum cans contains 1,800 containers.

4. Peak Month Container Volume

For costs that have a greater fixed component, the Peak Month Container Volume allocator was used. The premise is that certain types of costs that are more fixed in nature should be allocated based on the forecast volume in the peak month of the year. For example, the size of a Depot's customer interface area, including the number of sorting tables, etc. is likely proportional to the maximum volume the Depot is expected to receive. Therefore, customer interface building and related furniture and equipment could be allocated using the Peak Month Container Volume allocator.

While it could be argued that the Depots may size their operations for the peak day or even the peak hour, the quality of the data available does not support a time period shorter than a month. The data available to the DCA is limited to monthly volumes of each Container Stream shipped from the Depots.

From the 2005 data the DCA received, July 2006 was the peak volume month. Each Container Stream was allocated costs based on the actual share of July 2006 volume divided by the total July 2006 volume. The allocators used were as follows (with the Total Container Volume shown in the second last column for comparative purposes):

Forecast Group	ID	July 2006 Peak Month Container Volume	Month Container Volume Allocator %	Cal 2006 Total Container Volume %	Difference
Pop Cans	1	41,248,888	27.641%	27.578%	0.2%
Beer Cans	2	32,537,112	21.803%	22.101%	-1.3%
PET 0 to 1 l	3	29,141,039	19.527%	17.313%	12.8%
Beer Bottles	4	13,722,144	9.195%	10.518%	-12.6%
Glass 0 to 1 l	5	10,439,613	6.996%	6.967%	0.4%
Tetra 0 to 1 l	6	6,772,911	4.538%	5.166%	-12.1%
PET Over 1 l	7	5,330,350	3.572%	3.804%	-6.1%
Import Beer	8	6,107,959	4.093%	3.755%	9.0%
Glass Over 1 l	9	694,796	0.466%	0.529%	-12.1%
Gable 0 to 1 l	10	739,559	0.496%	0.527%	-6.0%
Drink Pouch	11	499,997	0.335%	0.357%	-6.1%
HDPE Over 1 l	12	353,322	0.237%	0.237%	0.1%
Polycups	13	307,909	0.206%	0.208%	-0.6%
Bi Metal 0 to 1 l	14	347,245	0.233%	0.238%	-2.0%
HDPE 0 to 1 l	15	166,476	0.112%	0.116%	-4.1%
Bi Metal Over 1 l	16	71,597	0.048%	0.058%	-16.6%
Gable Over 1 l	17	55,311	0.037%	0.044%	-15.6%
Bag in Box	18	22,224	0.015%	0.017%	-13.0%
Tetra Over 1 l	19	2,629	0.002%	0.003%	-29.7%
PVC Over 1 l	20	7,818	0.005%	0.005%	7.4%
Polypropylene	21	24,580	0.016%	0.020%	-16.9%
PVC 0 to 1 l	22	1,860	0.001%	0.003%	-59.5%
Other	23	72	0.000%	0.000%	21.8%
Sleemans	24	624,804	0.419%	0.433%	-3.2%
Import Beer PET 0 to 1 l	25	216	0.000%	0.000%	-56.5%
Import Beer (Bi-Metal)	26	9,012	0.006%	0.005%	29.8%
Imports 0 to 1 l	27	2,928	0.002%	0.001%	91.2%
		149,232,371	100.000%	100.000%	

Note that certain Container Streams would be allocated a greater portion of costs under the Peak Month Container Volume allocator compared to the Total Container Volume. For example, the allocation of costs for PET 0 to 1 L increased from 17.3% to 19.5% (12.8% increase) when the allocator is changed from Total Container Volume to Peak Month Container Volume. This result is thought to be due to the higher proportion of water bottle type containers that are shipped to the Manufacturers during the peak month of July 2006 compared to the total over the course of all months in 2005. In

effect, PET 0 to 1 L tend to be more seasonal with higher volumes returned during July 2006.[12]

Other containers, like Tetra 0 to 1 litre, are likely less seasonal as juice type products and are consumed more evenly throughout the year. The result is that the Container Stream Tetra 0 to 1 litre would be allocated 12% lower costs under the Peak Month Container Volume allocator relative to the Total Container Volume allocator.

5. Peak Month Pallets / Bags

The Peak Month Container Pallets is similar to the Peak Month Container Volume in that the portion of actual number of pallets shipped in July 2006 was used to allocate fixed costs that are related to the number of pallets or bags to be shipped to the manufacturers.

The allocators used were as follows (with the Total Container Pallets / Bags shown in the second last column for comparative purposes):

[12] From HCRP-DCA-2006-21b) (pages 72 and 74 of Doc 10-033) one can see that PET 0 to 1 l containers had a significant increase in volume in July 2006.

Forecast Group	ID	July 2006 Total Peak Month Pallets	July 2006 Total Peak Month Pallets Allocator %	Total Container Pallets Allocator %	Difference
Pop Cans	1	22,956	16.399%	16.446%	-0.3%
Beer Cans	2	18,083	12.919%	13.162%	-1.8%
PET 0 to 1 l	3	34,833	24.884%	22.174%	12.2%
Beer Bottles	4	6,847	4.891%	5.620%	-13.0%
Glass 0 to 1 l	5	13,054	9.326%	9.324%	0.0%
Tetra 0 to 1 l	6	5,747	4.106%	4.704%	-12.7%
PET Over 1 l	7	17,811	12.724%	13.622%	-6.6%
Import Beer	8	8,892	6.352%	5.861%	8.4%
Glass Over 1 l	9	3,648	2.606%	2.973%	-12.3%
Gable 0 to 1 l	10	2,571	1.837%	1.973%	-6.9%
Drink Pouch	11	438	0.313%	0.334%	-6.5%
HDPE Over 1 l	12	2,576	1.840%	1.845%	-0.3%
Polycups	13	129	0.092%	0.092%	0.1%
Bi Metal 0 to 1 l	14	496	0.354%	0.356%	-0.3%
HDPE 0 to 1 l	15	242	0.173%	0.179%	-3.2%
Bi Metal Over 1 l	16	306	0.219%	0.265%	-17.5%
Gable Over 1 l	17	227	0.162%	0.200%	-19.1%
Bag in Box	18	344	0.245%	0.286%	-14.1%
Tetra Over 1 l	19	10	0.007%	0.009%	-27.6%
PVC Over 1 l	20	153	0.109%	0.111%	-0.9%
Polypropylene	21	93	0.067%	0.078%	-14.1%
PVC 0 to 1 l	22	9	0.006%	0.015%	-57.7%
Other	23	1	0.001%	0.000%	132.5%
Sleemans	24	485	0.347%	0.358%	-3.0%
Import Beer PET 0 to 1 l	25	1	0.000%	0.001%	-57.1%
Import Beer (Bi-Metal)	26	23	0.017%	0.012%	35.9%
Imports 0 to 1 l	27	4	0.003%	0.001%	111.0%
		149,232,371	100.000%	100.000%	

Similar to Peak Month Container Volume, certain container streams that are more seasonal in nature, and cause a greater portion of certain costs like storage capacity, are allocated a greater share of the costs.

Schedule 8, Appendix I summarizes the allocators 2 to 5 noted above.

4.2 DIRECT LABOUR

Direct Labour is the largest single cost function in the study of the Alberta beverage container return industry representing 46% of the 2006 Revenue Requirement.[13] As noted in section 4.1 of this report, the Process Document submitted by the DCA outlined our desire to use a multi-variable linear regression (MVLR) model to develop an allocation of costs by Container Stream, as approved by the BCMB.

[13] With the determination that 50% of Overhead Labour costs be allocated to Direct Labour, the total Direct Labour related costs to be allocated to the Container Streams is over $31 million or 53% of the 2006 Revenue Requirement.

The DCA considered the issues around the allocation of Direct Labour costs in the initial stages of our retention by the BCMB. In our initial discussions interested parties expressed a desire to address this issue and to properly allocate costs to containers that were more or less costly to handle. Our initial hypotheses were that potentially:

1. All containers were practically the same cost to handle
2. Aluminum was cheaper to handle than small glass[14] which was in turn cheaper than all the remaining
3. High volume small containers[15] were cheaper to handle than high volume large containers[16], which were in turn cheaper than the remainder

On our Depot tours we asked the Depot managers or owners whether or not they perceived that one or another type of container seemed to be more time consuming to handle. The results of our inquiries did not shed any meaningful light on the matter due to the wide range of opinions expressed. Some managers stated that they felt that glass was indeed more difficult to handle primarily due to its breakability, and others stated that they did not perceive any difference between glass and other Container Streams. Some managers stated that they did not think there was much practical difference in terms of labour between Container Streams. Others mentioned that they felt lower volume containers were more difficult to handle because their operations were optimized to handle the higher volume products as efficiently as possible, and the handling of small volume containers was more labour intensive. Still others expressed the view that containers with caps took longer to handle as the sorters needed to take time to remove some of the caps.

4.2.1 DCA Analysis

The DCA retained Mr. Yuanshen Li, a Ph.D. candidate at the University of Calgary, whose research has focused on econometrics, which is the application of statistics to economics and business.

The DCA provided Mr. Li with a data set containing the Cal 2006 forecast of Direct Labour hours and volumes by Forecast Group and by Depot in the Study System. The DCA also provided Mr. Li with a dataset that contained Cal 2006 Direct Labour hours and volume forecasts for eight different groupings of containers:

1. Aluminum Cans
2. Glass 0 to 1 litre
3. Import Beer glass

[14] These include: Glass 0 to 1 l, Industry Standard Bottles, Import Beer Bottles

[15] These include: Pop and Beer cans, PET 0 to 1 l, ISB, Tetra Brik 0 to 1 l, Glass 0 to 1 l and Import Beer Bottles

[16] PET Over 1 l

4. Industry Standard Bottles
5. Large PET (over 1 litre)
6. Remainder
7. Small PET (0 to 1 litre)
8. Small Tetra (0 to 1 litre)

The DCA requested that Mr. Li run statistical tests to determine whether the data was appropriate and to make recommendations regarding usable Regressions. Mr. Li analyzed the data and concluded that the MVLR did not provide positive coefficients for each independent variable.[17] This result was not unexpected given the analysis performed in 2005.

As noted in section 4.1 above, the MVLR process will estimate m coefficients, one for each independent variable. The dataset initially reviewed by Mr. Li contained the 8 independent variables noted above. The Cal 2006 Direct Labour hours forecasts determined by the DCA for each Depot were multiplied by 3,600 to convert to Cal 2006 Direct Labour seconds. The m coefficients provide an estimate of the number of Direct Labour seconds to process each container within the independent variable groupings.

Several of the MVLR coefficients from the initial 8 groupings were negative (less than zero). This is nonsensical as each container requires an amount of Direct Labour that is greater than zero seconds. In order for a MVLR equation to be considered valid, the first test is that all coefficients must be greater than zero.

Another initial test is to determine if the m coefficient is statistically valid. A p statistic is calculated that tests the validity of each m coefficient. If the p value is greater than 10%, the corresponding m coefficient is considered to be not valid.

For the next step of the analysis, the DCA obtained from BCMB staff their views on the relative amount of Direct Labour required to handle certain containers streams. The BCMB staff's opinions were consistent with the DCA's views. In summary, the DCA is of the view that the highest volume containers can likely be ranked as follows, from lowest Direct Labour seconds to process to highest:

1. Aluminum Cans
2. Industry Standard Bottles (potentially including Sleemans bottles that are also placed on pallets and returned to BDL)
3. Small Tetra and Small PET
4. Small Glass and Import Beer bottles

[17] Doc 10-021 Initial Data Screening Report from Mr. Li

5. All other Container Streams

For the first four groupings, the DCA is not certain that one group will take materially more or less Direct Labour seconds to process.

The DCA prepared eight different scenarios that contained three independent variables. For each scenario, Mr. Li tested regressions with a constant and without a constant. A regression without a constant inherently assumes that there is no fixed cost component of Direct Labour (i.e. the best fit Regression line between the independent variables and volume gives zero Direct Labour seconds with zero volume).

These eight scenarios were also tested to determine if the following criteria could be met:

A. All m coefficients are positive.

B. The m coefficients are rational. The DCA is of the view that for the coefficients to be rational the coefficient for the high volume container groups should be equal to or less than the low volume container groups. For 3 independent variable regressions, the coefficient for VarC should be greater than VarA & VarB, and for 2 independent variable regressions, the coefficient for VarB should be greater than VarA.

C. All m coefficients have a p statistic value that is less than 10% (statistically valid).

The results from Mr. Li's analysis of Scenarios 1 to 8 showed that only Scenarios 1 and 2 met criteria A.[18] Scenarios 1 & 2 did not meet criteria B as the VarC coefficients were less than the VarA & VarB coefficients, suggesting that the low volume container groupings were two to three times faster to process than the high volume container groupings. The DCA does not accept this result as reasonable.

The DCA then prepared and tested Scenarios 1 to 8 (with a constant) with the DCA's regression model to confirm that the initial results were similar to those obtained by Mr. Li. Once satisfied that the two models produced similar results that could be relied upon as an initial screen, the DCA prepared additional Scenarios 9 to 21 that tested additional combinations of Container Streams grouped as three independent variables. The results from this analysis shows that none of the Scenarios 1 to 21 met the three criteria (A, B & C) noted above.[19]

The DCA then repeated the analysis using only data from the Depots that had annual volume above 5 million containers per year (total of 80 observations). The rationale was that by limiting the dataset to the larger Depots more consistency in the data may produce a statistically valid regression. Scenarios 30 to 50 were tested for the same 21 combinations of three independent variables, some without a constant. The results show that none of these Scenarios met the three criteria (A, B & C) outlined above.[20]

[18] Doc 10-022 Mr. Li results for Scenarios 1 to 8

[19] Doc 10-023 DCA Regression Results Scenarios 1 to 21

[20] Doc 10-024 DCA Regression Results Scenarios 30 to 50

The DCA then attempted to test combinations of Container Streams grouped under two independent variables. The DCA developed combinations of container streams under two independent variables (Scenarios 101 to 118) and prepared regressions. The results showed that four of the two independent variables scenarios tested produced results that met the criteria.[21] The DCA also tested the same scenarios with data from the 80 largest Depots only (labeled Scenarios 120 to 137) and found that four of the two independent variables scenarios (the same four with all 165 Depots) tested produced results that met the criteria.[22][23]

From this analysis the DCA found a total of eight 2 independent variable Scenarios that met the initial criteria A, B and C.

Scenario	Depots	Constant	VarA Container Streams	VarA Coefficient (sec/container)	VarB Container Streams	VarB Coefficient (sec/container)	Percent VarA More Efficient
113	All Study System	Yes	Pop Cans Beer Cans Glass 0 to 1 l Tetra 0 to 1 l Import Beer	4.53	All others	5.65	24.7%
114	All Study System	No	Pop Cans Beer Cans Glass 0 to 1 l Tetra 0 to 1 l Import Beer	4.49	All others	5.67	26.3%
132	Largest 80 Study System	Yes	Pop Cans Beer Cans Glass 0 to 1 l Tetra 0 to 1 l Import Beer	4.46	All others	5.73	28.5%
133	Largest 80 Study System	No	Pop Cans Beer Cans Glass 0 to 1 l Tetra 0 to 1 l Import Beer	4.46	All others	5.74	28.7%
116	All Study System	Yes	Pop Cans Beer Cans Glass 0 to 1 l Tetra 0 to 1 l Import Beer Sleemans	4.69	All others	5.36	14.3%
117	All Study System	No	Pop Cans Beer Cans Glass 0 to 1 l Tetra 0 to 1 l Import Beer Sleemans	4.64	All others	5.37	15.7%
135	Largest 80 Study System	Yes	Pop Cans Beer Cans Glass 0 to 1 l Tetra 0 to 1 l Import Beer Sleemans	4.62	All others	5.44	17.7%
136	Largest 80 Study System	No	Pop Cans Beer Cans Glass 0 to 1 l Tetra 0 to 1 l Import Beer Sleemans	4.61	All others	5.45	18.2%

[21] Doc 10-025 DCA Regression Results Scenarios 101 to 118

[22] Doc 10-026 DCA Regression Results Scenarios 120 to 137

[23] The DCA also tested operating hours and number of counting stations as independent variables with similar results obtained (see HCRP-DCA-2006-22 b).

The DCA notes that these Scenarios contain most of the high volume Container Streams, with the expectation of Industry Standard Bottles and PET over 1 litre.

Finally, in an effort to analyze any impacts the DCA's 2006 Phase I Report Rev 1 determinations with respect to Direct Labour may have on the MVLR equations, the DCA tested scenarios 101 to 118 using FY 2005 As Adjusted Direct Labour seconds and FY 2005 System Volumes. The resulting scenarios (labeled Scenarios 150 to 167) were similar to the results for Scenarios 101 to 118, albeit with Regression statistics that showed poorer correlations. The DCA is of the view that its adjustments to Direct Labour from FY 2005 to Cal 2006 do not have a material impact on the MVLR equations.

4.2.2 DCA Recommendations

The DCA and Mr. Li tested 96 different rational combinations of 2 and 3 independent variable scenarios and found that only 10 met the basic criteria determined by the DCA as required to pass the initial screen. For these 10 Scenarios that met criteria, nearly all of the largest volume Forecast Groups had the same coefficient (with Industry Standard Bottles being the exception). The DCA concludes that for the majority (over 86%) of the volume of containers processed, the MVRL equations provide the same Direct Labour seconds.

Of note, it was the DCA's intention to have Mr. Li perform a number of additional tests on the valid scenarios to determine if the regressions were statistically valid. Given the initial results, this analysis was not performed.

Based on the above analysis the DCA is of the view that the MVLR equations can not be used with confidence to allocate Direct Labour costs to Container Streams. Several of the initial Regression results suggest that the low volume Forecast Groups have significantly lower Direct Labour costs. These results are counter-intuitive.

The valid ten 2 independent variable scenarios suggest that the high volume Container Streams have lower Direct Labour cost than the lower volume Container Streams. From the DCA's observations, the DCA is of the view that the low volume Container Streams should likely take longer to handle. For example, low volume Container Streams (Container Streams that represent less than 3% of the total forecast 2006 volume other than the largest 8 Forecast Groups) are typically placed in bins further away causing the handler to take additional time to process.

Due to the lack of confidence the DCA has in the MVLR results at this juncture, the DCA recommends that Direct Labour costs be allocated based on Total Container Volume (i.e. each Forecast Group is allocated the same unit Direct Labour cost). See Schedule 2.0, Appendix I.

In order for statistically valid Regression coefficients to be derived from a data set, there needs to be a significant difference in the quantum of Direct Labour seconds that have measurably higher or lower volumes of certain types of Container Streams by Depot. Unfortunately, it is anticipated that there is a large degree of homogeneity across Depots, that is, the ratio of a certain Container Stream to the total volume is relatively constant amongst Depots across the province.

If certain Depots specialized in the collection of aluminum cans and others specialized in the collection of glass containers, there would be more "segregation" in the data and one would expect statistically valid coefficients could be derived for a Regression model with three or more independent variables. Considering that Depots do not tend to specialize in the collection of specific Container Streams and the beverage preferences of Albertans likely don't differ materially by geographic region, it appears that the homogeneity of the data may not allow for Direct Labour cost differentiation by Container Streams using MVLR.

However, Mr. Li identified a significant heterogeneity in the data suggesting that some other variable may help explain the differences in Direct Labour costs between Forecast Groups (e.g. geographic area or size of Depot):

> Based on our preliminary diagnostic tests on the OLS regression, we find there is a significant unknown heterogeneity in the residuals. As a consequence of this unknown heterogeneity, the Ramsey reset test indicates the omitted variable problem, the distribution of residual has severe non-normality, the coefficients of cans and smpet, smpet and remainder are not significantly different. The graph of residuals shows an increasing pattern as the fitted value increases, which indicates they are obviously non-random.
>
> As an initial guess, we believe this unknown heterogeneity might be because of the spatially auto-correlated residuals in our sample. The spatial autocorrelation occurs when the observations are related through their geographic locations. In our depot analysis, the total number of containers processed of a depot might be positively/negatively affected by other depots nearby. And the total number of containers is closely related to the direct labor hours, our dependent variable.
>
> When estimating regression coefficients, economists generally take one of the following four approaches to deal with spatial autocorrelation. The first is to admit the problem might exist, but relegate it to future analysis. The second approach is to assume it away if the tests for spatial autocorrelation (such as Moran's I, Geary's c etc.) show that it is not severe. The third approach is to estimate the variance-covariance matrix of the residuals so that this information can be use to obtain efficient estimates of the regression coefficients and unbiased estimates of the standard errors. The fourth approach is to reduce the spatial dependence through the choice of explanatory variables. We could either try different grouping methods of bottles, or include other relevant location variables. If we want to do a spatial analysis on the original data sets, we need to design a way of mapping the locations of all depots, i.e., find two variables, x-coordinate and y-coordinate which specify the location of each depot in the analysis.[24]

In an effort to determine if the observations are related through their geographic locations Mr. Li tested the data with the Depot classification (Small & Large) variable. The results did not explain the suspected heterogeneity.

[24] Doc 10-021, p. 10

Finally, the DCA combined FY 2004 data from the 2004 UCAs and FY 2005 data form the 2005 UCAs to obtain data for 105 Depots who participated in both UCA return processes. Further, the DCA removed nine Depots where the data was felt to represent outliners in an effort to obtain better regression equations (for a total of 96 observations). A total of 14 regressions were analyzed and four were found to met the DCA's initial criteria. These four regressions were also tested without a contact and were also found to be valid. The following table shows the results.[25]

Scenario	Depots	Constant	VarA Container Streams	VarA Coefficient (sec/container)	VarB Container Streams	VarB Coefficient (sec/container)	Percent VarA More Efficient
172	Combined FE 2004 & FE 2005	Yes	Pop Cans Beer Cans Beer Bottle	2.61	All others	6.98	167.4%
175	Combined FE 2004 & FE 2005	Yes	Pop Cans Beer Cans PET 0 to 1 l Beer Bottle	3.47	All others	7.16	106.3%
177	Combined FE 2004 & FE 2005	Yes	Pop Cans Beer Cans Beer Bottle Tetra 0 to 1 l	2.6	All others	7.77	198.8%
180	Combined FE 2004 & FE 2005	Yes	Pop Cans Beer Cans Beer Bottle Glass 0 to 1 l Import Beer	3.87	All others	5.75	48.6%
185	Combined FE 2004 & FE 2005	No	Pop Cans Beer Cans Beer Bottle	3.42	All others	6.14	79.5%
186	Combined FE 2004 & FE 2005	No	Pop Cans Beer Cans PET 0 to 1 l Beer Bottle	4.09	All others	5.78	41.3%
187	Combined FE 2004 & FE 2005	No	Pop Cans Beer Cans Beer Bottle Tetra 0 to 1 l	3.28	All others	6.67	103.4%
189	Combined FE 2004 & FE 2005	No	Pop Cans Beer Cans Beer Bottle Glass 0 to 1 l Import Beer	4.2	All others	5.2	23.8%

Unlike the previous regressions, the above results tend to suggest that the higher volume Container Streams are significantly faster to process. However, all the higher volume container streams (except PET over 1 l) are found in at least one of the valid regressions, making differentiation between the high volume Container Streams difficult.

The DCA is of the view that additional MVLR analysis will not be of further assistance to the BCMB and/or the HCRP for the determination of 2006 Handling Commissions. The DCA is disappointed that the results from the MVLR models to date could not be utilized with these datasets and that the Regression techniques did not produce statistically valid regressions. It is our view additional analysis, and/or more years of data, may allow for an expansion of the terms of the Regression to further differentiate the costs to handle different Container Streams. As well, improving the accuracy of the reported Direct Labour values by Depot may help strengthen the Regression equations.

[25] See Doc 10-038 DCA Regression Results Scenarios 170 to 190

With three to five years of data collected on the same sample, we may be able to apply panel data analysis techniques.[26] Panel data regression techniques would allow us to take advantage of two different types of information: the cross-sectional information reflected in the differences between subjects, and the time-series information reflected in the changes within subjects over time. With panel data, it is possible to control for data integrity issues and some types of omitted variables even without observing them, by observing changes in the dependent variable over time.

Finally, we believe that further research may be warranted in obtaining results from data in other jurisdictions that may help improve the Regression analysis. If other jurisdictions could collect similar data, and their operations are similar to that of Alberta Depots, it would be possible to use the entire dataset and the additional observations may support MVLR.

4.3 OVERHEAD LABOUR

In the 2006 Phase I Report Rev 1 the DCA recommended 2006 Overhead Labour costs of $7.8 million. These costs relate to the senior personnel who manage the Depots.

The DCA is of the view that Depot managers primarily perform two key functions:

1. Day to day supervision of Depot staff and Depot operations
2. Resource and operational planning to manage Depot operations

The 2005 UCA data does not provide the level of detail needed to classify Overhead Labour costs by the type of management duties performed by Depot managers. For the Large Depots, the DCA's observation is that generally Depot supervisors primarily oversee the Direct Labour personnel (function 1 above). Some Depot owners also perform supervisory functions, however, their primary role tends to be administrative and planning related (function 2). For Small Depots, typically the owner / manager performs both functions.

In the absence of any better data, the DCA recommends the Overhead Labour costs be allocated as follows:

- 50% using the Direct Labour Regression allocators
- 50% using the Peak Month Container Volume allocators

In making this recommendation, our rationale is that the Direct Labour Regression allocators will allocate supervision costs in the same manner as Direct Labour costs. This would reflect our hypothesis that employee supervision costs are proportional to the Direct Labour that is being supervised. The Peak Month Container Volume allocators will allocate non-supervisory costs on the premise that operation related administrative and planning tasks correlate to the volume of containers processed, and in particular planning for the peak periods.

[26] Panel data, also called or longitudinal data or cross-sectional time-series data, are data where multiple cases (people, firms, countries etc) were observed at two or more time periods.

Schedule 3.1, Appendix I shows the classification of costs and Schedule 3.0 shows the application of the allocators to the Container Streams.

4.4 BUILDINGS

As noted in Section 3.4 above, Building costs were classified into three classes:

Reported Use of Depot Building Space		Cal 2006 Building Costs
Office / Customer Interface	20.1%	$1,894,203
Sorting	26.6%	$2,501,479
Loading & Storage	53.3%	$5,006,859
	100.0%	$9,402,541

The size of the Office and Customer Interface areas are, in our view, determined by the need to handle the peak volume, in terms of customers, containers and administrative functions. Therefore, the DCA recommends that Office / Customer Interface costs be allocated based on the Peak Month Container Volume allocators. The rationale is that the amount of building floor space that is set aside for Office and Customer Interface is likely planned (or should be planned) based on the volume of containers expected during the peak return period.

We recommend that the Loading and Storage class of costs be allocated based on Peak Month Container Pallets allocators. The DCA is of the view that the portion of the buildings that is used for storing and loading bags and pallets should be allocated based on the use of the space during the peak shipping periods. In effect, the Loading and Storage related costs are allocated based on the forecast of the number of bags and pallets of each Forecast Group shipped during the month of July 2006.

We feel that the Sorting class of costs contains attributes of both the Office / Customer Interface and the Loading and Storage classes of costs. Therefore, we recommend splitting these costs 50/50 into the Peak Month Container Volume and the Peak Month Container Pallet allocators.

Schedule 4.1, Appendix I shows the classification of these costs and Schedule 4.0 shows the application of the allocators to the Container Streams.

4.5 EQUIPMENT

As noted in Section 3.4 above, Equipment costs were classified into four classes:

Equipment Cost Class	Table 6-a CCA	CCA & Loan Interest	Table 6-b Lease	Lease Payments	Operating Costs	Total
Sorting / Loading / Cardboard	42.0%	$361,659	38.6%	$170,167	$282,547	$814,373
Building	6.6%	$57,045	1.6%	$7,154		$64,200
Office	16.3%	$140,146	18.0%	$79,456	$418,259	$637,861
Collection	35.1%	$302,630	41.8%	$184,590	$1,254,776	$1,741,996
	100.0%	$861,481	100.0%	$441,367	$1,955,582	$3,258,430

In our view, it would be most appropriate for the equipment related Storage / Loading / Cardboard costs to be allocated based on Total Container Pallets / Bags allocators. The DCA is

of the view that the "back-end" of the Depot equipment related costs are best allocated on the number of bags and pallets that are handled. Despite the capital nature of a portion of the equipment costs (i.e. amortization), we are of the view that this class of costs is better allocated based on annual pallets rather than peak month pallets.

It is our conclusion that the equipment costs included in the 2006 Revenue Requirement are not necessarily a function of peak usage. For example, we note that in our Depot tours we observed that forklift costs (for example) are required for efficient operations, but that the forklift is only in use for small portions of the typical day. Because volume changes would not likely materially impact Depot forklift Cost Incurrence, we conclude that pallets handled, rather than peak pallets, would be a more appropriate allocator.

We recommend that the equipment-related Building class of costs should be allocated on the same basis as the Buildings Costs (see section 4.3 above).

We recommend that Office related equipment costs be allocated on the same basis as office related building costs, that is the Peak Month Container allocator. The DCA is of the view that office related equipment costs are likely procured to accommodate the peak volume period and that allocation based on peak volume is appropriate.

Equipment related collection costs are primarily from vehicles used to collect containers from outside the Depot. The DCA is of the view that these costs are best allocated on Total Volume, since vehicles are used year-round and there is no discernable difference in vehicle costs based on the weight or size of the containers collected.

Schedule 5.1, Appendix I shows the classification of costs and Schedule 5.0 shows the application of the allocators to the Container Streams.

4.6 OVERHEAD

As noted in Section 3.6 of this report, Overhead costs were classified into three cost categories:

1. Business Related
2. Building Related
3. Volume Related

Overhead costs, in general, are costs that include the other minor costs that are required for Depot operation, but do not fall into any of the other major cost functions that we have collected data for in the 2005 UCA process.

Business related Overhead costs include office overhead costs. Even thought these costs tend to be incurred over the course of the year (e.g. office expenses, telephone, insurance, accounting, etc.), the magnitude of the costs is related to the size of the business, which in turn is sized to meet peak volume requirements. The DCA is of the view that these costs should be allocated based on Peak Month Volume.

We have classified all other overhead costs as Volume related. These costs are for ABDA & BCMB fees, deposit incentives, shrinkage, etc., which are all proportional to volume. We recommend allocating these costs on the basis of Total Volumes.

Schedule 6.1, Appendix I shows the classification of costs and Schedule 6.0 shows the application of the allocators to the Container Streams.

4.7 RETURN & INCOME TAX

Return and Income Tax costs are costs related to the compensation to the Depot shareholder/owner for owning the Depot business.

The DCA considered two alternatives for the allocation of System Return costs:

1. Total Container Volume
2. Sum of Other Costs

Allocation of Return & Income Tax costs by volume will result in each returned container paying the same Return & Income Tax amount on a cents per container basis (in the case of the current 2006 Phase I forecast, this results in a system Return & Income Tax cost, less Miscellaneous Revenue, of 0.37¢/container).

The advantages to this allocation method is that it is simple to understand, and reflects an implied equal risk weighting among each container. Also, we believe it may allow inclusion of additional Container Streams with greater ease and less controversy for the benefit of all parties. If all containers pay the same per-unit profit, there is greater visibility of that cost item and we believe that this is beneficial in allowing parties outside the BCMB to determine whether other efficiencies can be achieved that offset the payment of a profit component to the Depots with the inclusion of other Container Streams in the Alberta beverage container return industry.[27]

Allocation by Sum of Other Costs involves calculating the total costs for each Container Stream excluding Return & Income Tax costs, and allocating Return & Income Tax on the basis of the percentage of Container Stream costs (excluding Return & Income Tax costs) to total costs (excluding Return & Income Tax costs). This calculation allocates more Return & Income Tax costs to higher unit cost Container Streams, and less to lower unit cost Container Streams. This methodology would imply that higher cost containers are riskier to handle (and therefore should attract a higher Return & Income Tax component) than less costly containers. The DCA does not believe that higher cost containers provide any additional risk to Depots that would warrant a larger share of the Return & Income Tax costs.

The DCA recommends that allocation on the basis of Total Container Volume would be the most appropriate methodology. Schedule 7.1, Appendix I shows the classification of costs and Schedule 7.0 shows the application of the allocators to the Forecast Groups.

[27] For example, if small batteries were added to the system to be collected for recycling the BCMB could identify the return potion of the system costs easily,

5.0 RATE DESIGN

5.1 INTRODUCTION

In the context of designing utility rates, once a Container Stream Revenue Requirement has been determined, the next step is to design rates that will collect the forecasted amount from the Manufacturers. Schedule 1.1, Appendix I shows the 2006 Revenue Requirement by Forecast Group.

An energy utility (like an electric or gas distribution company) has three primary ways to charge a customer. The choice for each depends on the goals of the utility Rate Design and the economics of provision of service. The choices are:

1. Customer Charge
2. Peak Usage (Demand) Charge
3. Commodity (Energy) Charge

A Customer Charge is a fixed dollar charge that is equal for every customer (within a Customer Class) regardless of size or usage. Such a charge might be implemented as a proxy for fixed cost recovery, or for costs that are determined to be a function of the number of customers (an example of this would be costs related to generating bills for customers).

A Peak Usage, or Demand Charge, is typically used to recover costs that are a function of the peak usage of the customer. An example might be property costs related to wires or pipelines located near to the customer, whose sizing is a reflection of the anticipated peak usage of the customer.

Finally, a Commodity Charge is usually implemented to recover costs that are a function of the volume of commodity consumed. A commodity charge can be a flat value (for example, $0.01/GJ) or it can be tiered ($0.01/GJ for the first 1,000 GJ, and $0.008/GJ thereafter), all depending on the goals of the Rate Design and the customer behavior that the Rate Design is trying to encourage.

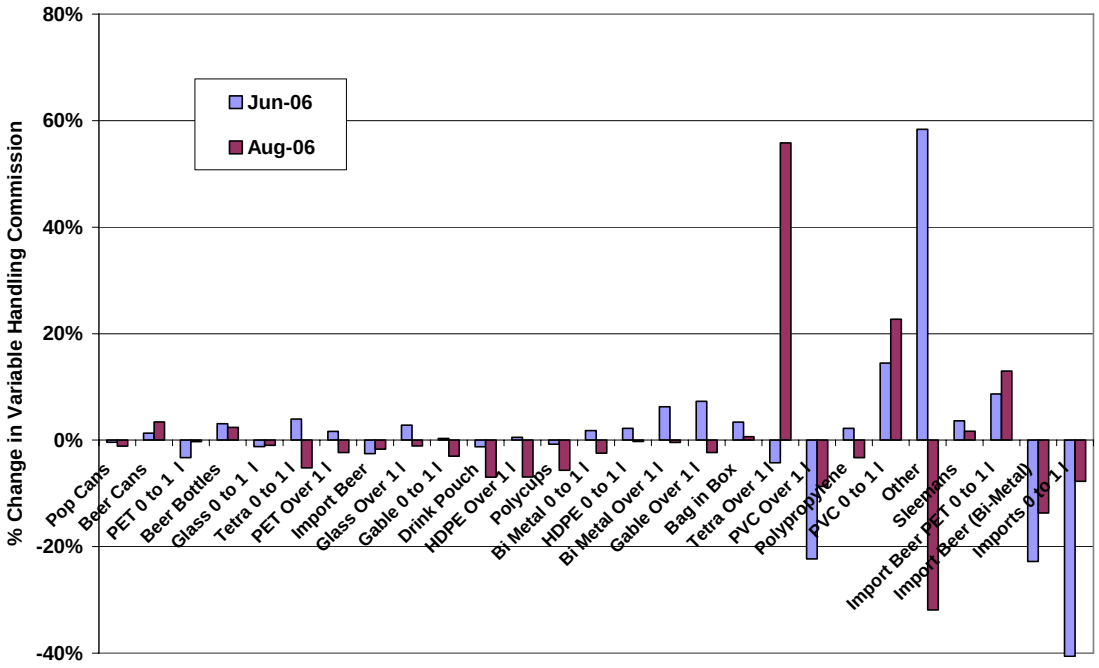
5.2 DCA RATE DESIGN

5.2.1 Variable Rate Design

Using the above determinations to allocate the recommended 2006 Revenue Requirement to the Forecast Groups, a variable Rate Design yields the rates shown on Schedule 1.2, Appendix I.

The DCA notes that for the low volume container streams, the variable rate is sensitive to the peak month selected for the Peak Month Volume and Peak Month Pallet allocators. The following chart shows the variable rates using June and July 2005 compared to the actual peak month of July 2006.

Percent Change in Variable Rates from July 2006



The DCA also notes that over 97% of the volume is collected from the largest eight Forecast Groups. During our Depot tours, the DCA noted that many Depots arrange their operations to accommodate the higher volume Container Streams in the most efficient manner, while sacrificing efficiency for the lower volume Container Steams.

The DCA is of the view that for the above reasons, and to address Rate Design criteria 1 (simplicity and ease of understanding), 4 (revenue stability) and 5 (rate stability), if may be appropriate to simplify or average the proposed 2006 Handling Commissions for the lower volume container streams. In making a recommendation with respect to 2006 Handling Commission levels for smaller volume Container Streams, the DCA was mindful of any potential cross subsidies between the two Manufacturers.

The DCA is of the view that a small subsidy between low volume and high volume Container Streams may be appropriate as the DCA in its prior allocation related determinations may not have fully captured all the efficiencies some Depots employ in handling high volume Container Streams (e.g. Direct Labour).

The DCA recommends the following:

- The eight highest Forecast Groups should each have a unique Handling Commission that is posted to one hundredth of a cent

- The minimum Handling Commission for all container streams, except the eight highest volume Forecast Groups, should be 6¢/container, rounded to the nearest cent

- The maximum Handling Commission for all container streams, except the eight highest volume Forecast Groups, should be 10¢/container, rounded to the nearest cent

The DCA notes that under the current Handling Commissions the maximum rate is 8¢/container, which has been effective since June 7, 2002. The DCA is of the view that an increase of 25% (from 8¢/container to 10¢/container) from June 2002 to January 2006 is reasonable for the low volume Container Streams. The DCA took into consideration the reluctance to use MVLR to assign Direct Labour costs in making the determination that the small volume Container Streams should have a minimum 2006 Handling Commission of 6¢/container.

These determinations produce the Modified Variable Handling Commission under column g of Schedule 1.2-a, Appendix I. From these determinations the DCA notes:

1. The cross subsidy between Manufactures is about $12,000, which is deemed to be not material and within the accuracy of the underlying data

2. The cross subsidy from the eight highest volume Forecast Groups to the smaller volume Container Streams is under $400 thousand, or about 0.7% of the recommended 2006 Revenue Requirement. The DCA is of the view that this level of cross subsidy is acceptable for the reasons noted above.

5.2.2 Necessity for a Fixed Charge

5.2.2.1 Fixed Charge Analysis

In the context of the Alberta beverage container return industry, historically Handling Commissions have been a 100% Commodity Charge (i.e. ¢/container). This type of charge is easy to understand and implement, and is simple to administer.

The Alberta beverage container return industry is different from a regulated utility in that there are 215 individual Depots with separate and mainly distinct owners who, in fact, have the ability to compete with each other for volumes.

The Phase I process forecasted the Cal 2006 Total System Revenue Requirement. If all 215 Depots were aggregated into one company, we believe the Cal 2006 Total System Revenue Requirement would reflect the operations of that aggregated company. In this instance, each shareholder would share in the system average profit in proportion to the number of shares owned vs. the total shares issued by the aggregate company.

Were the Alberta beverage container return industry one company, we would not be as concerned about individual Depot profitability, because profits from one Depot would subsidize losses in other Depots, and the shareholders of the aggregated company would earn the aggregate income. In this instance, once costs have been allocated to Container Streams it would, in all practicality, make little to no difference how the costs are charged – one lump sum, or a commodity charge per container, a combination of these two, or some other.[28]

[28] Note that these comments presuppose that forecast volumes and costs occur in actuality. If a variance from forecast to actual results did occur, the nature of the charge would matter.

However, the Alberta beverage container return industry is **not** one large company, and individual Depot results **do** matter. Under the current rate structure, Depot profits fluctuate dramatically as a function of volume. The largest nine Depots in 2005 had volumes between 20 million and 40 million containers (18% of the Total System), whereas the smallest 16 Depots in the province handled under 500,000 containers (0.4% of the Total System). The Rate Design must be robust enough to ensure that all Depots, regardless of volume, have a reasonable chance to earn a fair return given the risks of their enterprise.

The 2006 Phase I Report Rev 1 identified that the majority of Small Depots did not achieve profitability after applying what the DCA considers to be appropriate adjustments, primarily for labour and building costs. The Phase I study forecasted that in 2006 the Small Depots in the Study System, as a group, would lose approximately $2.3 million (excluding Return). In studying this issue, we hypothesized the following as possible causes for the non-profitability:

1. Small Depots are less efficient users of Direct Labour than Large Depots
2. Fixed costs for Small Depots are higher on a per-unit basis than fixed costs for Large Depots.
3. One or more economies of scale exist for Large Depots that do not exist for Small Depots.

Based on our analysis of the cost structure of Small and Large Depots, we reject hypothesis one above and accept both hypotheses two and three.

In considering the possibility that Small Depots were less efficient users of labour than Large Depots, we observed that Small Depots (primarily in Rural areas) manage their labour costs in one of two ways. First, a Small Depot in a Rural area is typically operated in conjunction with another business such that labour costs can be shared. This requirement acts to increase the labour utilization of the Depot. For these Small Depots, if the Depot were stand-alone, a dedicated employee would be required and would be underutilized given the volume of that Depot.

Secondly, we observed that some Depots restrict their hours of operation. This acts to increase labour utilization because it ensures that returns happen in a constrained window where labour can be fully utilized. While this does impact customer service (in terms of reducing customer flexibility) it acts to ensure economic operation of the Depot.

Further, labour utilization was studied in the 2006 Phase I Report Rev 1. The charts contained on pages 38 & 162 of the 2006 Phase I Report Rev 1[29] demonstrated that there was no material difference in Direct Labour hours per container between Small and Large Depots (as demonstrated by the slope of the Regression lines on the charts).

For the reasons above, we conclude that direct labour is not a source of the un-profitability of Small Depots.

[29] Doc 10-036

We then turned to an analysis of the fixed costs of operating a Small Depot. We observed that several Small Depots shared their premises (and possibly equipment) with another operation. However, we note that the square footage used for the Depot premises should be valued at market rates, and that we do not believe a material amount of cost sharing can occur given the space required for storage.

If building costs are paid for at a market rate, it is clear to us that for a small volume Depot, the fixed costs for buildings would not be covered as easily with the Depot receiving a 100% variable Handling Commission. While we note that Small Depots are in many instances operating in smaller square footage buildings than Large Depots, this does not change the fact that the fixed costs for buildings, on a per container basis, are much higher. We conclude that this issue could also extend to fixed equipment and overhead costs, but we believe that the building cost is a primary cause of the lack of profitability in Small Depots.

We finally examined whether Large Depots could obtain an economy of scale that would lower their unit costs below Small Depots. We observed that there was not a significant increase in Depot size from a Depot processing 15 million containers to a Depot processing 40 million containers. When we investigated this, we realized that the reason that a Depot could process twice as much volume without doubling the Depot size was primarily because of more frequent pickups from the Manufacturers. From this, we concluded that the unit cost would fall in moving from 15 million to 40 million in volume, and therefore an economy of scale did exist for Large Depots.

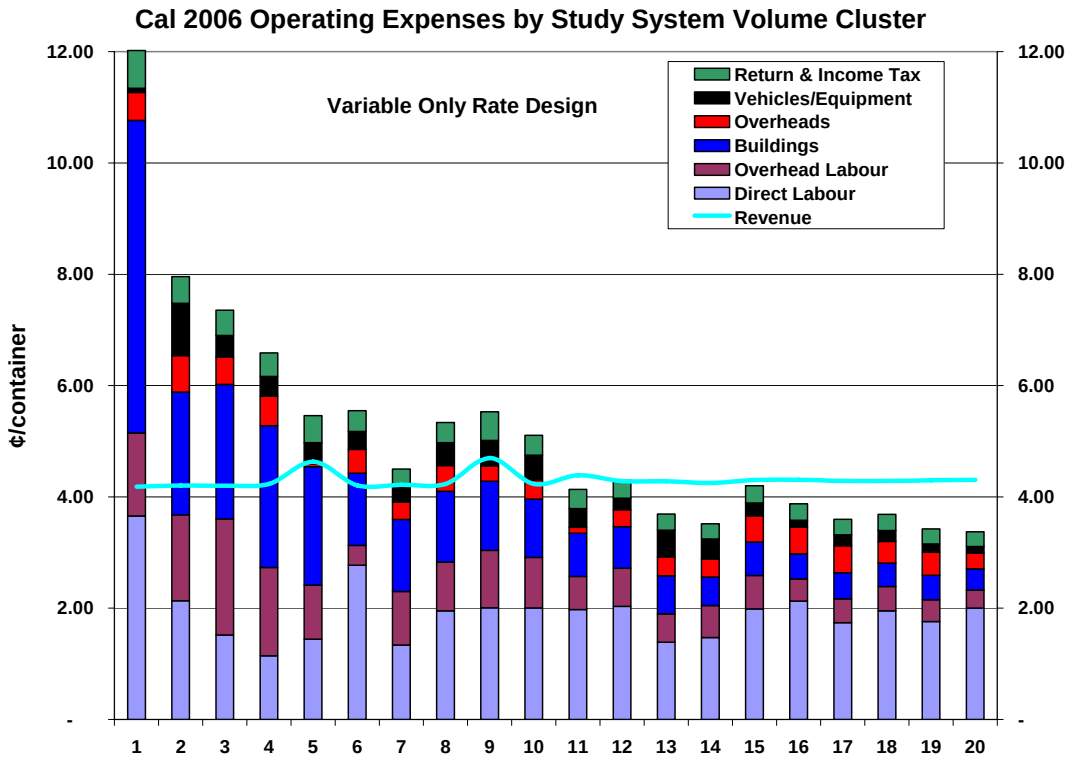
From section 3 of the 2006 Phase I Report Rev 1, the DCA concluded that while Large Depots typically reside in geographic areas where there is about 40,000 population per Depot, and Depots can compete for container return volumes, Small Depots typically reside in geographic areas where the population density is much lower.[30] The DCA is of the view that due to the lower population density, Smaller Depots have a distinct competitive disadvantage and may not have the opportunity to earn a fair Return.

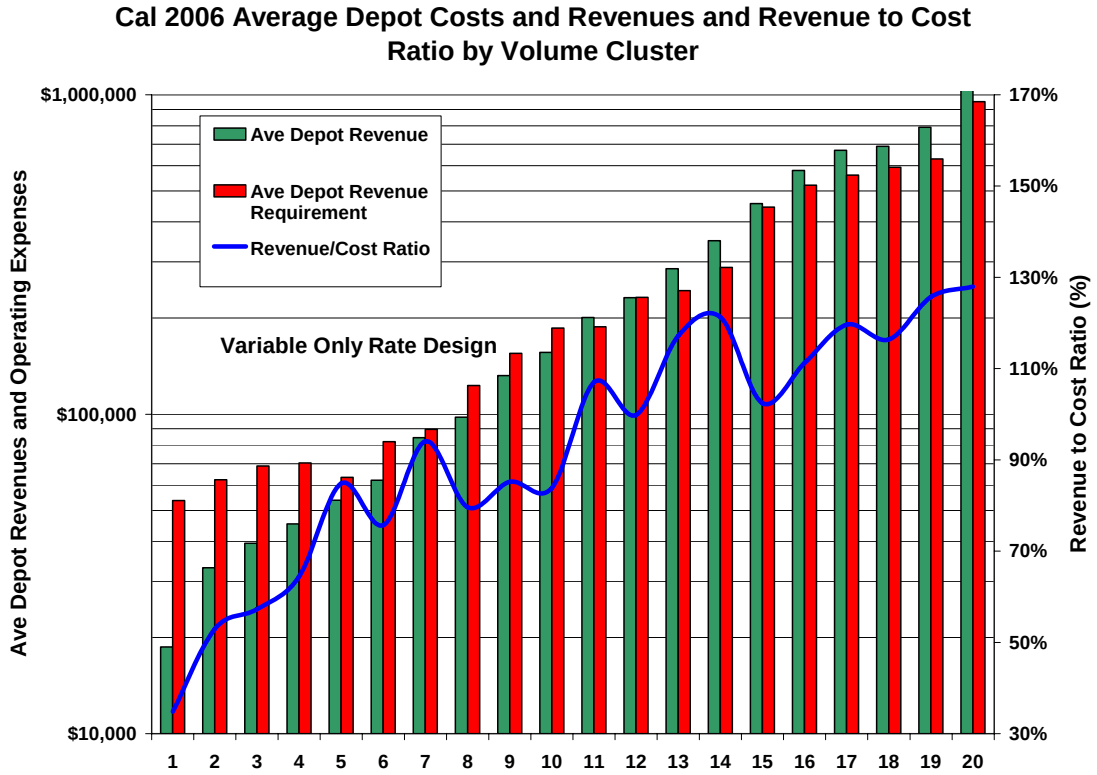
The first of the following two charts shows Cal 2006 Study System unit costs and revenue by Volume Cluster. In order to protect Depot confidentially, Depots were categorized into 20 "Volume Clusters", with about 1/20th of the smallest Depots placed in Volume Cluster 1, the next smallest into Volume Cluster 2, etc. and the largest Depots into Volume Cluster 20. Analysis by Volume Cluster also tends to "average" the results to highlight trends across the Depot sizes.

Note that these charts differ from similar charts provided in the 2006 Phase I Report Rev 1 in that the costs include Return and Income Tax (Revenue Requirement as opposed to Operating Expenses). As noted on the chart on page 122 of the 2006 Phase I Report Rev 1 and as discussed below, the fixed building costs result in significantly higher per container costs for the smallest Depots.

The second chart shows that the Cal 2006 average costs for the smaller Depots is significantly higher than revenue under the current handling Commissions. Average Revenue to Costs ratios below 50% were calculated for the smallest 3 Volume Clusters in the Study System.

[30] Doc 10-036, section 3.2.1, 2006 Phase I Report Rev 0, page 18


Cal 2006 Operating Expenses by Study System Volume Cluster
Variable Only Rate Design
Return & Income Tax
Vehicles/Equipment
Overheads
Buildings
Overhead Labour
Direct Labour
Revenue
¢/container
12.00
10.00
8.00
6.00
4.00
2.00
-
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20


Cal 2006 Average Depot Costs and Revenues and Revenue to Cost Ratio by Volume Cluster
Ave Depot Revenue
Ave Depot Revenue Requirement
Revenue/Cost Ratio
Variable Only Rate Design
Ave Depot Revenues and Operating Expenses
Revenue to Cost Ratio (%)
$1,000,000
$100,000
$10,000
170%
150%
130%
110%
90%
70%
50%
30%
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

5.2.2.2 Fixed Charge Analysis

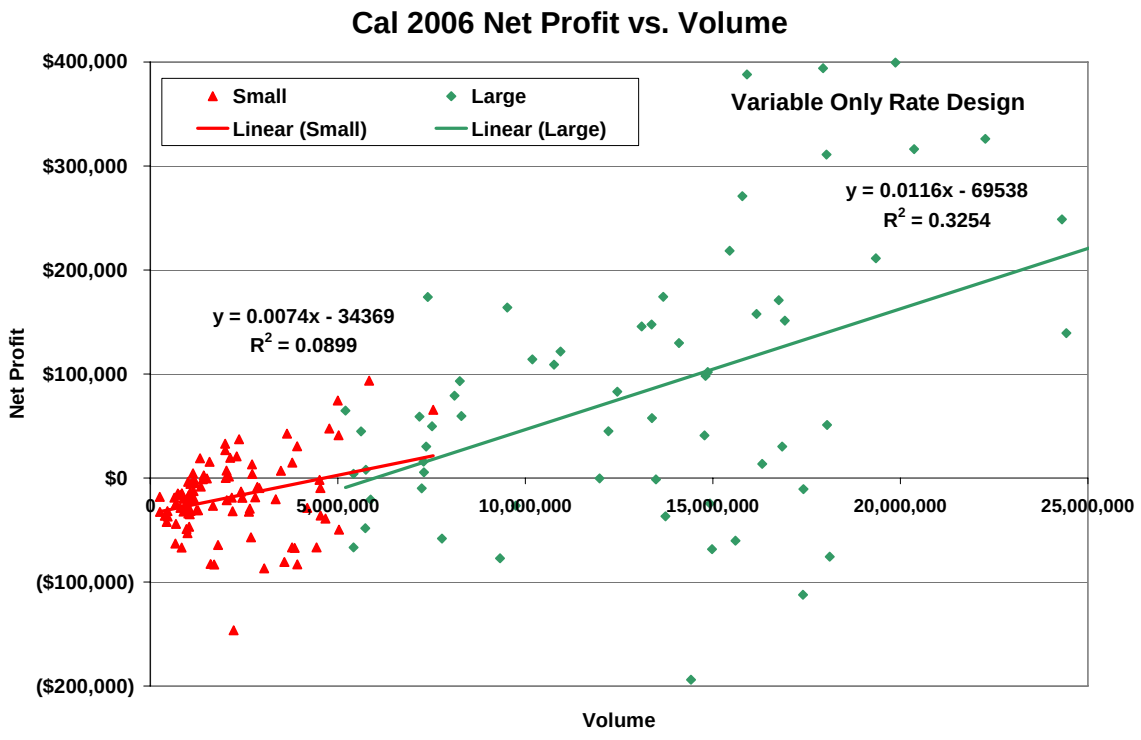
From our analysis above, we conclude that a simple commodity rate will not ensure a reasonable expectation of profit for a Small Depot. We recommend that a portion of the Handling Commission for each Container Stream be paid to all Depots in the form of a fixed $/month/Depot charge. In utility parlance, this would be conceptually equivalent to a Customer Charge.

In concluding that a fixed Depot charge would be appropriate, we have applied Rate Design Principle #3: Effectiveness in yielding total Revenue Requirements under the fair return standard. We conclude that, given the current industry structure where individual Depots are individually owned, recognition in the Rate Design of the higher unit fixed costs for Small Depots relative to the average must occur. In making this recommendation, we are also recognizing Rate Design Principle #7: Avoidance of "undue discrimination" in rate relationships, as well as Rate Design Principle #6: Fairness of the apportionment within the rates of the total Cost of Service among the different customers – although in this instance we are apportioning the total Cost of Service among the different Depots.

We believe that the inclusion of a fixed charge in the rate structure should significantly improve the profitability and viability of Small Depots. This will also help ensure that the public interest environmental mandate of the BCMB is upheld, by strengthening the Small Depots in the Alberta beverage container return industry. Finally, we believe that quality of service levels at Small Depots will be improved by increasing their revenues.

The chart below demonstrates that the Cal 2006 fixed costs of a Small Depot with no volume are approximately $34,400 per year (the y-intercept of the Small Depot Regression line is negative $34,400, which implies the level of fixed costs) and $66,000 per year for a Large Depot. This analysis is based on variable Handling Commissions (Variable Rate Design described in section 5.2.1 above) with an increase in the total Handling Commission revenues to match the recommended 2006 Revenue Requirement.

Note that Profit is defined as Handling Commission Revenue + Miscellaneous Revenue – Operating Expenses – Return – Income Tax.



The quantum of a fixed monthly fee needs to balance the inherent un-profitability of smaller Depots with the other well established Rate Design criteria, like public acceptability, revenue and rate stability (gradualism) and fairness.

The DCA tested the bounds of a level of fixed fee to determine the impact on Study System Depots. At the lower bound, no fixed fee results in Study System profitability as noted above and average Depot profitability as per the table below:

Profit Impact by Volume Cluster

Proposed Rates: **Variable Only Rate Design**

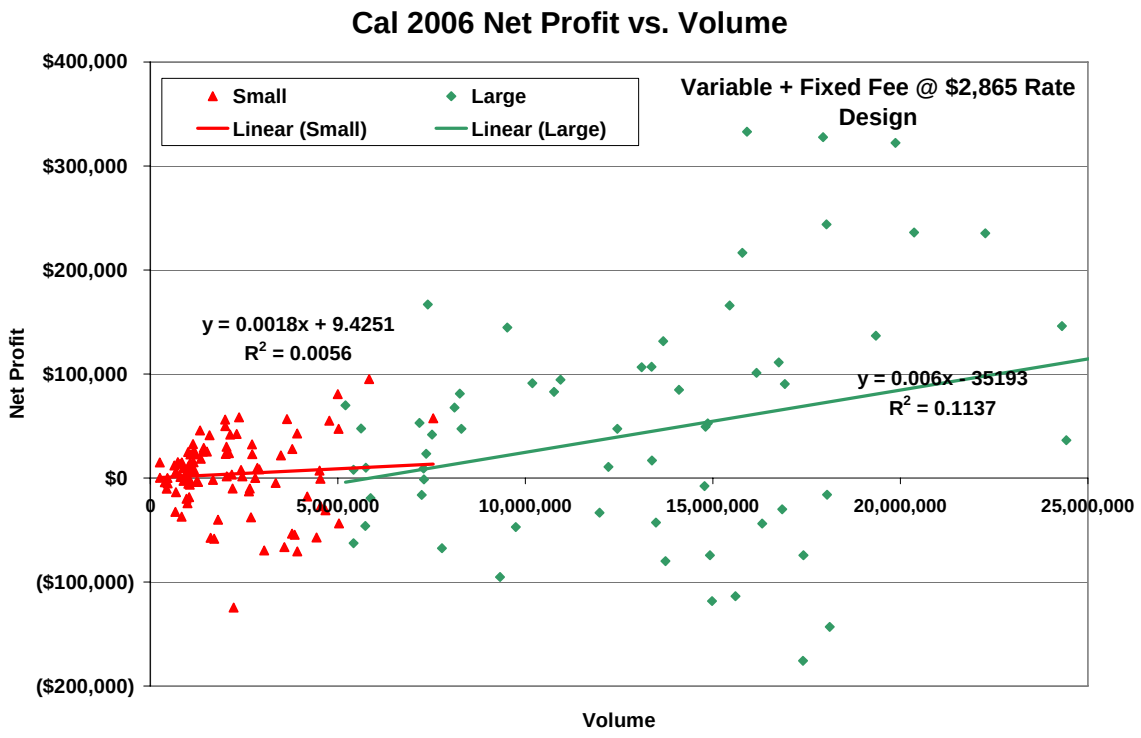
Volume Cluster	Average Depot Volume	Average Profit per Depot: Profit at Current Rates	Average Profit per Depot: Profit at Proposed Rates	Difference
1	446,496	-$37,491	-$34,979	$2,512
2	786,499	-$34,310	-$29,335	$4,975
3	939,025	-$36,467	-$29,436	$7,031
4	1,071,030	-$31,131	-$25,050	$6,080
5	1,161,447	-$9,940	-$9,620	$320
6	1,477,083	-$25,434	-$19,908	$5,526
7	2,001,416	-$17,543	-$5,326	$12,217
8	2,313,480	-$34,770	-$25,068	$9,702
9	2,812,156	-$27,056	-$22,983	$4,073
10	3,685,058	-$58,409	-$30,107	$28,302
11	4,579,904	-$1,899	$13,162	$15,060
12	5,411,677	-$31,596	-$355	$31,241
13	6,676,848	$6,453	$41,913	$35,461
14	8,223,346	$27,476	$61,342	$33,866
15	10,598,464	-$4,471	$10,883	$15,353
16	13,458,349	$5,625	$58,708	$53,083
17	15,635,200	$42,007	$110,005	$67,998
18	16,098,949	$40,236	$97,279	$57,043
19	18,401,898	$90,594	$161,691	$71,097
20	28,265,105	$181,621	$265,777	$84,156

Clearly, the majority of the Small Depots are unprofitable as the average profitability by Depot up to Volume Cluster 12 (Small Depots) is less than zero.

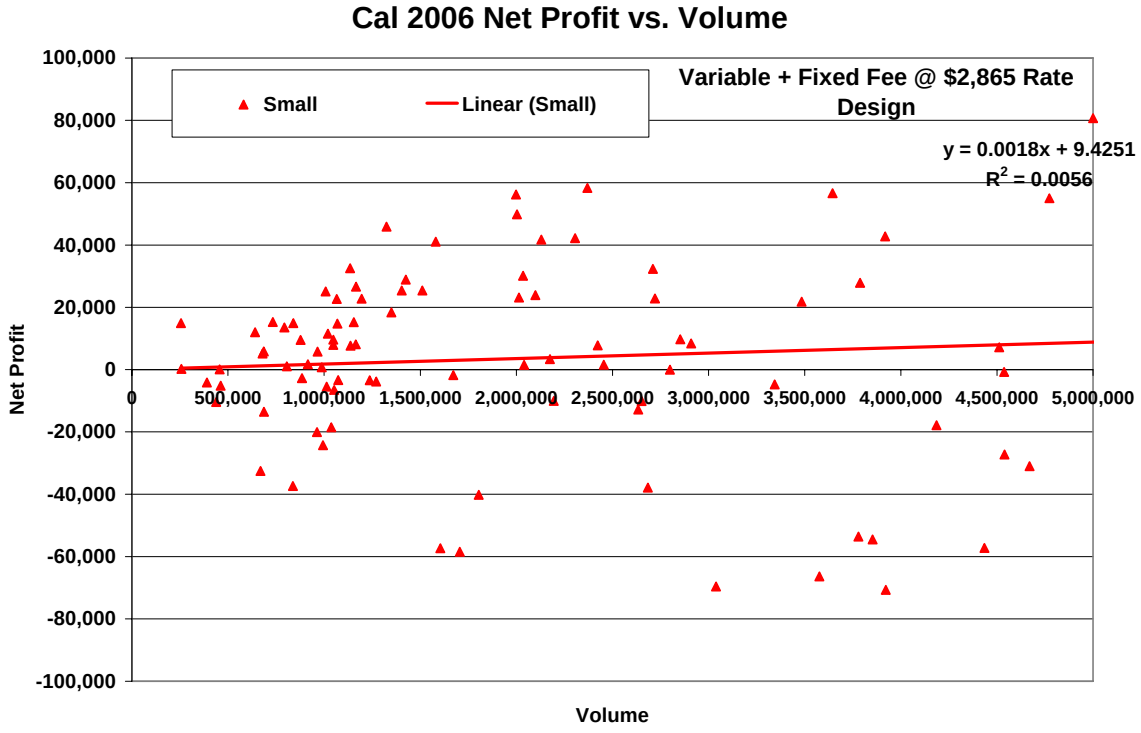
The DCA notes that while the overall revenue derived from the current rates compared to the proposed variable only rates is about 2.8% lower,[31] the revenue received by individual Depots can change materially due to the relative number of each type of container handled. The DCA speculates that the significant change in the Handling Commissions for the beer Container Streams from 2.83¢/container to the variable only rates may be the main source of these changes in profit by Depot (i.e. some Depots may have more or less volume from beer Container Streams).

At the upper bound of a reasonable fixed fee, the DCA notes that at fixed month payment of $2,865 the Small Depots will receive their theoretical fixed fees, whereas the large Depots will not. This can be noted as the y-intercept of the Small Depot Regression equation is close to zero.

[31] With the variable only rate design larger Depots are more profitable, which increases the Income Tax expense. Under the proposed rate design, the rate increase is 2.1% as shown on Schedule 11, Appendix I of the 2006 Phase I Report Rev 1 (col. g, line 26).

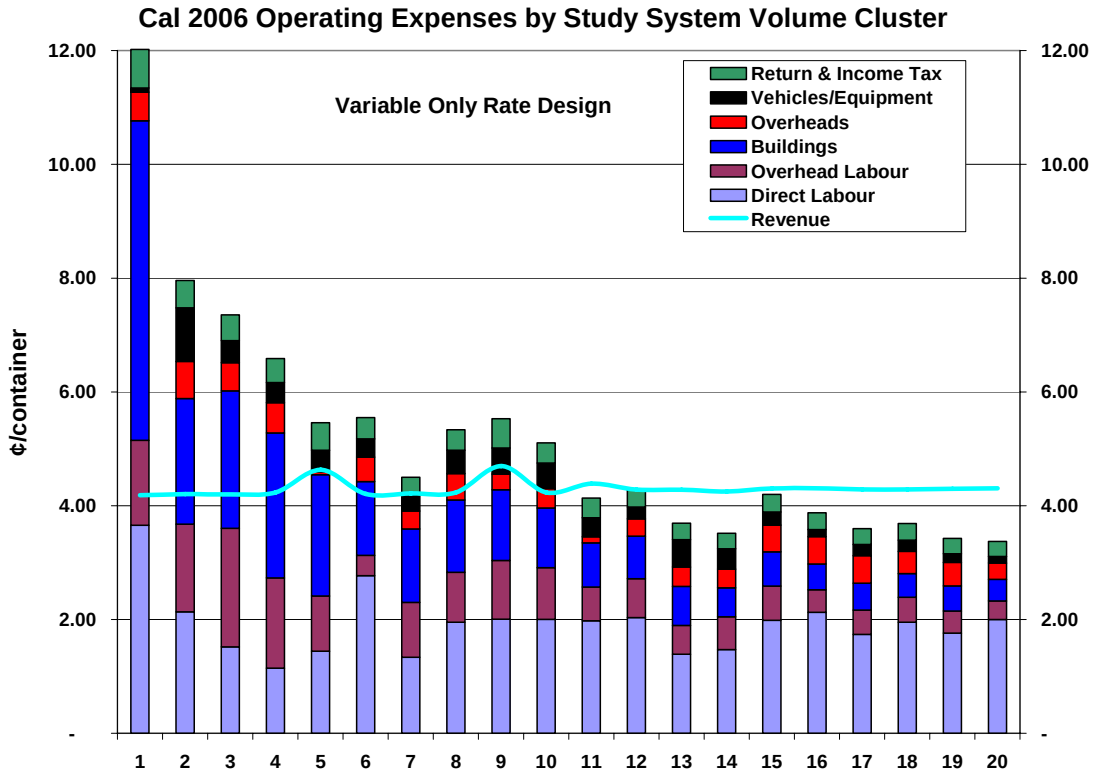


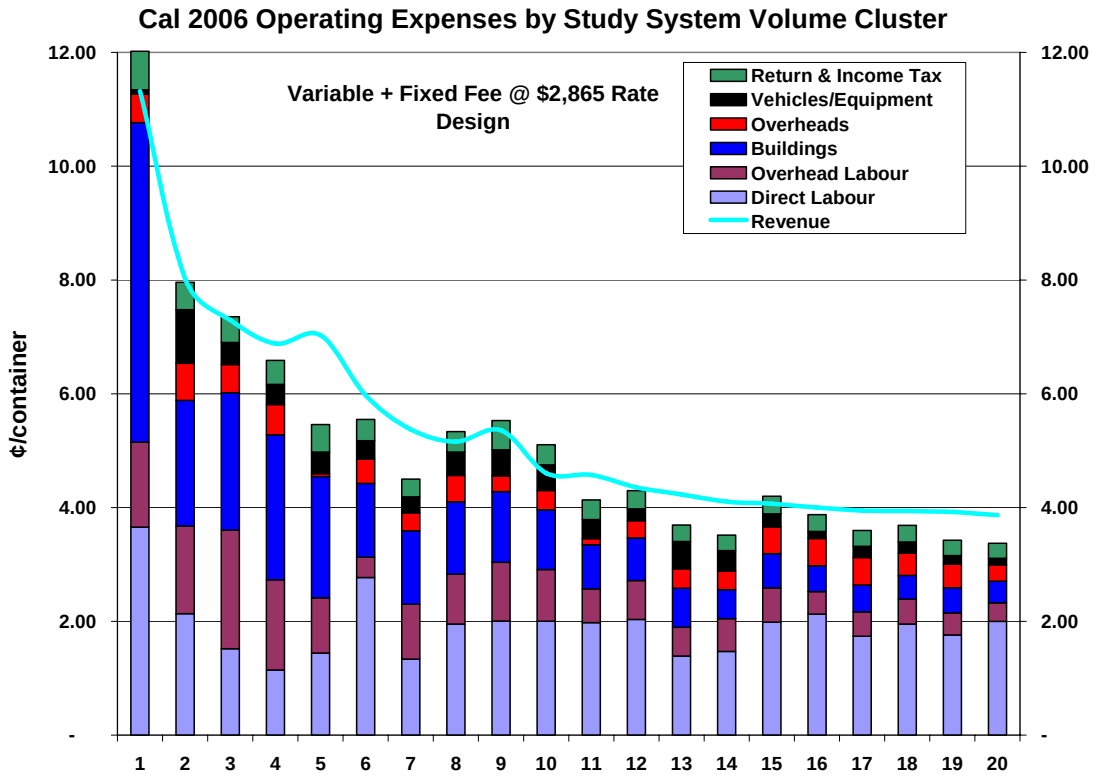
1 With a $2,865 monthly fixed fee the smallest Depots will have the opportunity, on average, to
2 earn a profit.



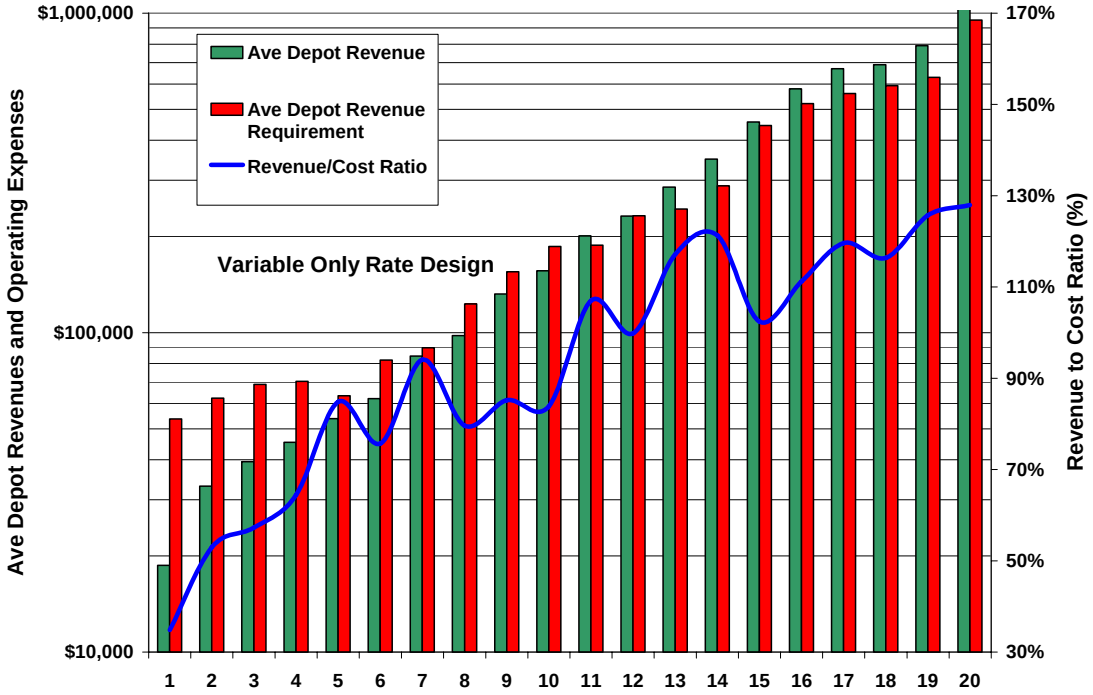
The following two charts show that a $2,865 fixed monthly fee will, on a per container basis, allow revenues to better match costs. Note that the light blue revenue line follows the per container operating expenses with the fixed fee.

The next two charts show that the fixed monthly fee will also bring revenues and costs into better alignment for all Volume Clusters and revenue to cost ratios that gyrate around the 100% level.

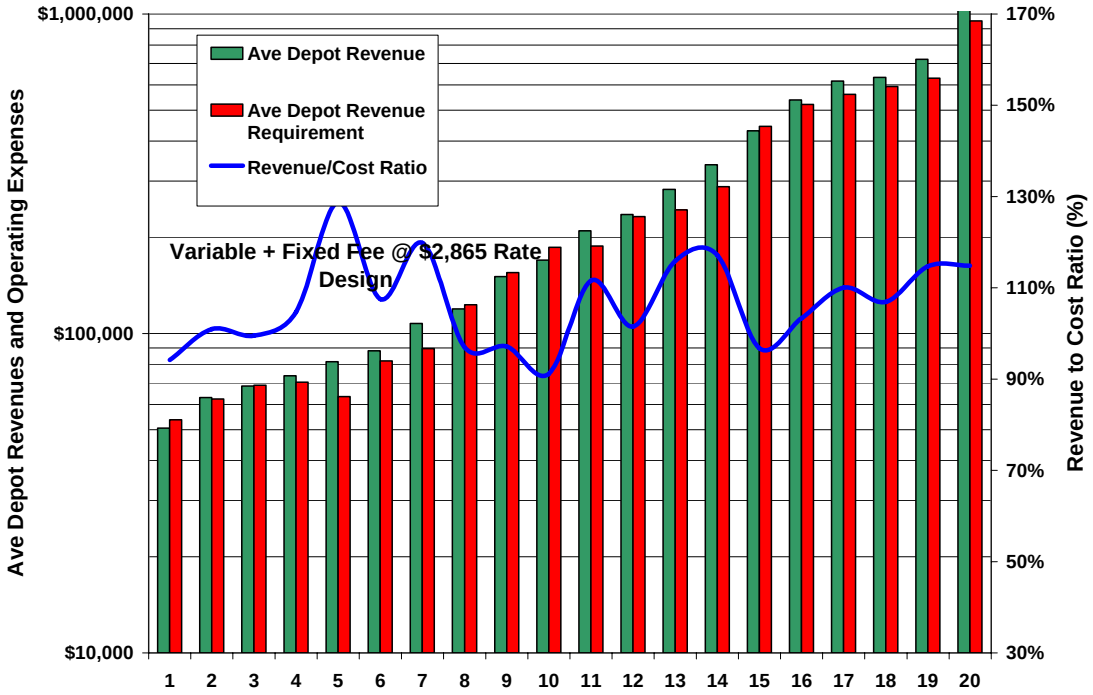

Cal 2006 Operating Expenses by Study System Volume Cluster
Variable Only Rate Design
Return & Income Tax
Vehicles/Equipment
Overheads
Buildings
Overhead Labour
Direct Labour
Revenue
¢/container
12.00
10.00
8.00
6.00
4.00
2.00
-
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20


Cal 2006 Operating Expenses by Study System Volume Cluster
Variable + Fixed Fee @ $2,865 Rate Design
Return & Income Tax
Vehicles/Equipment
Overheads
Buildings
Overhead Labour
Direct Labour
Revenue
¢/container
12.00
10.00
8.00
6.00
4.00
2.00
-
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Cal 2006 Average Depot Costs and Revenues and Revenue to Cost Ratio by Volume Cluster



Cal 2006 Average Depot Costs and Revenues and Revenue to Cost Ratio by Volume Cluster



The DCA notes that a fixed monthly fee of $2,865 per month would result in more than a 100% increase in revenues for the smallest 30 Depots in the Study System (and about 100 Depots in the Total System).

Revenue Impact by Volume Cluster

Proposed Rates: **Variable + Fixed Fee @ $2,865 Rate Design**

Volume Cluster	Average Depot Volume	Average Revenue per Depot: Handling Commissions + Misc. Revenue at Current Rates	Average Revenue per Depot: Handling Commissions + Misc. Revenue at Proposed Rates	Difference	% Difference	Unit Difference (¢/container)
1	446,496	$17,078	$50,544	$33,466	196.0%	7.50
2	786,499	$30,556	$63,014	$32,458	106.2%	4.13
3	939,025	$36,504	$68,520	$32,016	87.7%	3.41
4	1,071,030	$42,090	$73,691	$31,601	75.1%	2.95
5	1,161,447	$50,935	$81,629	$30,694	60.3%	2.64
6	1,477,083	$57,069	$88,184	$31,115	54.5%	2.11
7	2,001,416	$78,941	$107,520	$28,579	36.2%	1.43
8	2,313,480	$91,599	$119,322	$27,723	30.3%	1.20
9	2,812,156	$123,025	$150,702	$27,677	22.5%	0.98
10	3,685,058	$144,862	$169,699	$24,837	17.1%	0.67
11	4,579,904	$189,440	$209,527	$20,087	10.6%	0.44
12	5,411,677	$218,745	$235,705	$16,960	7.8%	0.31
13	6,676,848	$269,171	$282,516	$13,345	5.0%	0.20
14	8,223,346	$327,181	$337,521	$10,340	3.2%	0.13
15	10,598,464	$442,143	$430,859	-$11,283	-2.6%	(0.11)
16	13,458,349	$554,303	$538,372	-$15,931	-2.9%	(0.12)
17	15,635,200	$645,207	$616,828	-$28,379	-4.4%	(0.18)
18	16,098,949	$656,801	$634,240	-$22,561	-3.4%	(0.14)
19	18,401,898	$765,330	$721,691	-$43,638	-5.7%	(0.24)
20	28,265,105	$1,192,087	$1,092,591	-$99,496	-8.3%	(0.35)

The DCA does not believe that a fixed fee approaching $3,000 per month is reasonable for all Depots. While the DCA does believe that the smaller Depots have not been given an appropriate opportunity to earn a fair Return under the current Handling Commission variable rate structure, these Depots are still in operation and functioning.[32]

In reviewing the high unit costs for the smallest Depots, the DCA notes that building costs are a significant component. The DCA re-visited the determinations made with respect to deemed lease rate and deemed building sizes. The smallest Depots are allocated building costs based on below average sizes and deemed lease rates (the smallest Depots tend to be in rural areas and were assigned lease rates based on the North and South average lease rates[33]).

The DCA is of the view that while the Phase I building cost determinations are appropriate to set the 2006 Revenue Requirement, the smallest Depots may have actual building costs that are lower than the DCA's determinations. The following table shows the As Reported and Cal 2006 Building costs by Volume Cluster.

[32] The DCA does note that the smallest Depots tend to be closing – an indication that prolonged non-profitability is not sustainable.

[33] See 2006 Phase I Report Rev 1, section 4.7.4.

Building Costs by Volume Cluster

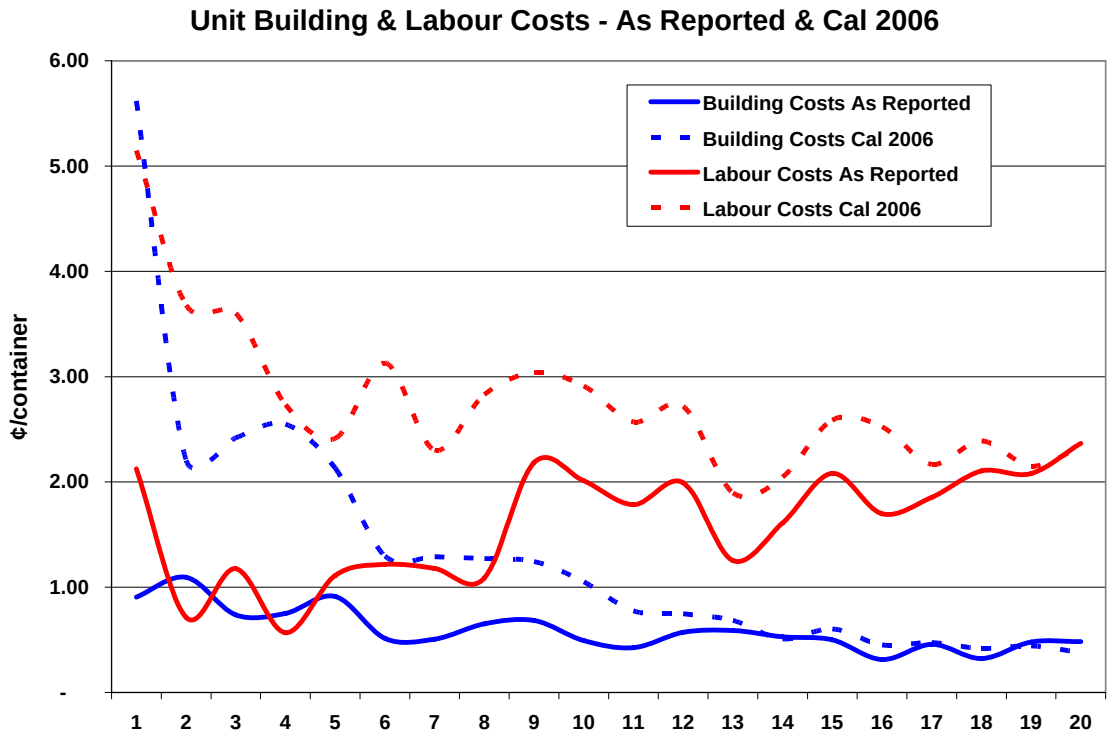
Volume Cluster	Average Depot Volume	Average Cost per Depot As Reported	¢/cont	Average Cost per Depot Cal 2006	¢/cont	% Difference
1	446,496	$4,047	0.91	$25,081	5.62	519.8%
2	786,499	$8,600	1.09	$17,333	2.20	101.5%
3	939,025	$6,931	0.74	$22,706	2.42	227.6%
4	1,071,030	$8,047	0.75	$27,279	2.55	239.0%
5	1,161,447	$10,585	0.91	$24,732	2.13	133.7%
6	1,477,083	$7,584	0.51	$19,146	1.30	152.5%
7	2,001,416	$10,120	0.51	$25,825	1.29	155.2%
8	2,313,480	$15,095	0.65	$29,449	1.27	95.1%
9	2,812,156	$19,260	0.68	$34,974	1.24	81.6%
10	3,685,058	$18,158	0.49	$38,676	1.05	113.0%
11	4,579,904	$19,491	0.43	$35,472	0.77	82.0%
12	5,411,677	$30,907	0.57	$40,413	0.75	30.8%
13	6,676,848	$39,313	0.59	$45,701	0.68	16.2%
14	8,223,346	$43,501	0.53	$41,952	0.51	-3.6%
15	10,598,464	$53,110	0.50	$63,986	0.60	20.5%
16	13,458,349	$42,117	0.31	$60,742	0.45	44.2%
17	15,635,200	$71,528	0.46	$74,016	0.47	3.5%
18	16,098,949	$51,964	0.32	$67,179	0.42	29.3%
19	18,401,898	$88,322	0.48	$81,404	0.44	-7.8%
20	28,265,105	$136,757	0.48	$106,800	0.38	-21.9%

Generally, the average As Reported Depot Building cost was about $10,000 or less per year for Depots up to 2 million containers per year. The same analysis for labour costs shows that there is also a fixed component to labour costs.

Labour Costs by Volume Cluster

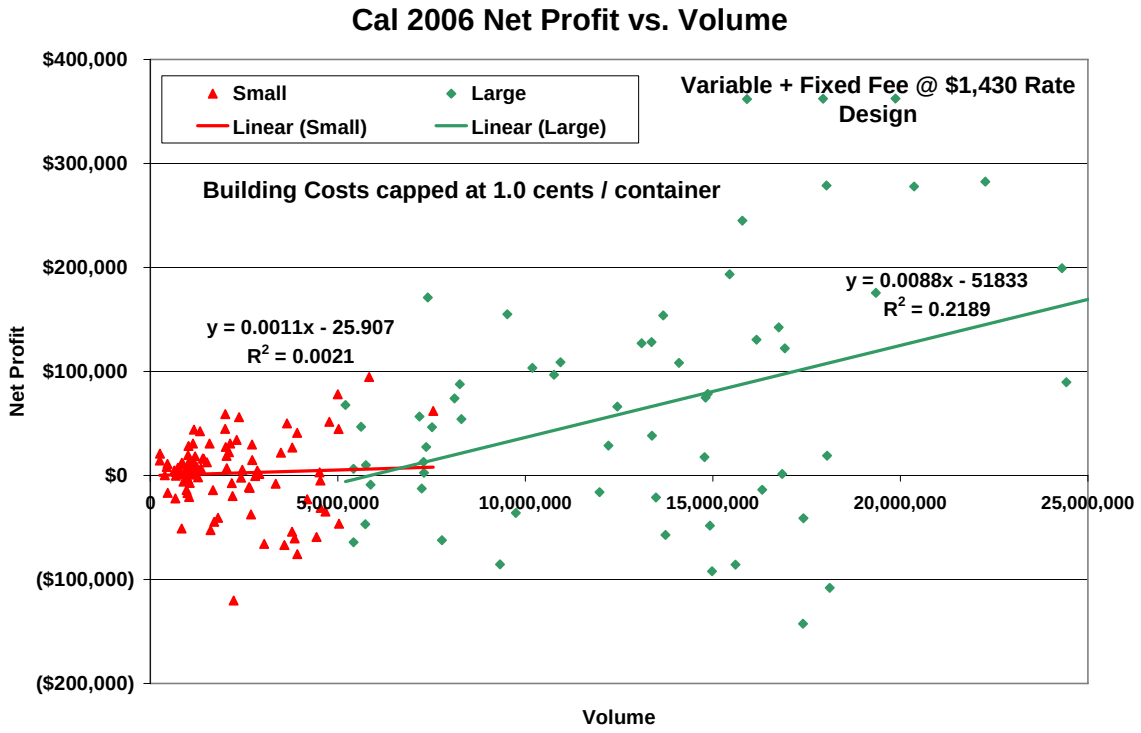
Volume Cluster	Average Depot Volume	Average Cost per Depot As Reported	¢/cont	Average Cost per Depot Cal 2006	¢/cont	% Difference
1	446,496	$9,493	2.13	$22,986	5.15	142.1%
2	786,499	$5,606	0.71	$28,925	3.68	416.0%
3	939,025	$11,054	1.18	$33,815	3.60	205.9%
4	1,071,030	$6,067	0.57	$29,266	2.73	382.4%
5	1,161,447	$12,902	1.11	$28,028	2.41	117.2%
6	1,477,083	$17,962	1.22	$46,219	3.13	157.3%
7	2,001,416	$23,602	1.18	$46,071	2.30	95.2%
8	2,313,480	$25,148	1.09	$65,423	2.83	160.2%
9	2,812,156	$61,451	2.19	$85,415	3.04	39.0%
10	3,685,058	$74,091	2.01	$107,243	2.91	44.7%
11	4,579,904	$81,743	1.78	$117,690	2.57	44.0%
12	5,411,677	$107,895	1.99	$147,097	2.72	36.3%
13	6,676,848	$83,725	1.25	$126,579	1.90	51.2%
14	8,223,346	$132,435	1.61	$168,379	2.05	27.1%
15	10,598,464	$220,640	2.08	$274,112	2.59	24.2%
16	13,458,349	$228,503	1.70	$339,519	2.52	48.6%
17	15,635,200	$289,674	1.85	$338,642	2.17	16.9%
18	16,098,949	$338,650	2.10	$384,707	2.39	13.6%
19	18,401,898	$382,599	2.08	$395,664	2.15	3.4%
20	28,265,105	$668,720	2.37	$658,046	2.33	-1.6%

1 The following chart shows the data in the above two tables graphically.

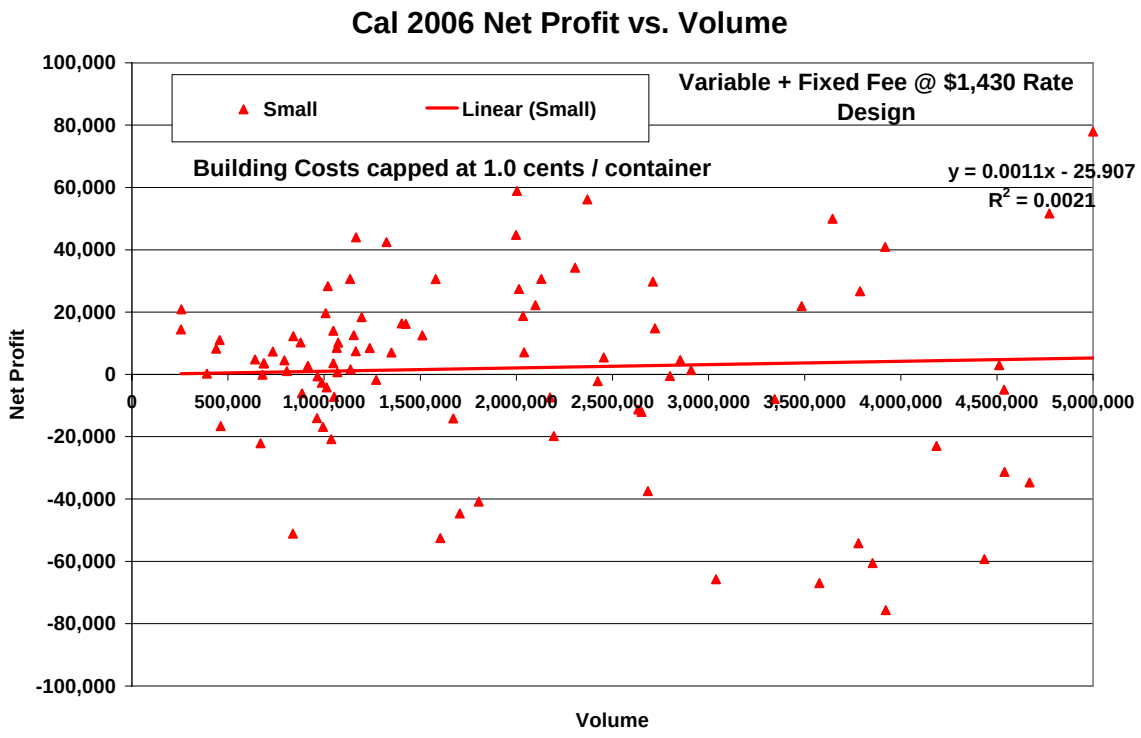


As volume increases, the impact of the DCA's determinations on Building and labour costs become less pronounced, on a per container cost basis.

Generally, the DCA is of the view that if smaller Depots have an existing building cost advantage, a Rate Design could be determined that takes this into account. The DCA is less inclined to recommend a Rate Design that does not provide a reasonable opportunity for smaller Depots to recover their labour related costs. With this in mind, the DCA determined a monthly fixed fee amount that would recover Cal 2006 costs, except that building costs would be capped at 1¢/container (the average As Reported level for smaller Depots). Using the metric that Small Depot fixed costs would be recovered (zero-intercept for the Small Depot best fit Regression line), gives a monthly fixed fee of $1,430 per month.



The DCA notes that the slope of the Small Depot best fit line slopes upward to the right, suggesting that larger Small Depots would be slightly more profitable.



1 The DCA also notes that the smallest Depots would also be receiving a revenue increase over
2 current Handling Commissions of over 100% with a monthly $1,430 fixed fee.

Revenue Impact by Volume Cluster

Proposed Rates: **Variable + Fixed Fee @ $1,430 Rate Design**

Volume Cluster	Average Depot Volume	Average Revenue per Depot: Handling Commissions + Misc. Revenue at Current Rates	Average Revenue per Depot: Handling Commissions + Misc. Revenue at Proposed Rates	Difference	% Difference	Unit Difference (¢/container)
1	446,496	$17,078	$34,616	$17,538	102.7%	3.93
2	786,499	$30,556	$48,070	$17,514	57.3%	2.23
3	939,025	$36,504	$54,018	$17,514	48.0%	1.87
4	1,071,030	$42,090	$59,570	$17,481	41.5%	1.63
5	1,161,447	$50,935	$67,770	$16,835	33.1%	1.45
6	1,477,083	$57,069	$75,239	$18,170	31.8%	1.23
7	2,001,416	$78,941	$96,091	$17,150	21.7%	0.86
8	2,313,480	$91,599	$108,795	$17,197	18.8%	0.74
9	2,812,156	$123,025	$141,619	$18,594	15.1%	0.66
10	3,685,058	$144,862	$163,139	$18,277	12.6%	0.50
11	4,579,904	$189,440	$205,553	$16,113	8.5%	0.35
12	5,411,677	$218,745	$234,144	$15,399	7.0%	0.28
13	6,676,848	$269,171	$284,608	$15,437	5.7%	0.23
14	8,223,346	$327,181	$344,077	$16,896	5.2%	0.21
15	10,598,464	$442,143	$444,273	$2,131	0.5%	0.02
16	13,458,349	$554,303	$560,059	$5,756	1.0%	0.04
17	15,635,200	$645,207	$644,802	-$405	-0.1%	(0.00)
18	16,098,949	$656,801	$663,563	$6,762	1.0%	0.04
19	18,401,898	$765,330	$757,646	-$7,684	-1.0%	(0.04)
20	28,265,105	$1,192,087	$1,157,050	-$35,037	-2.9%	(0.12)

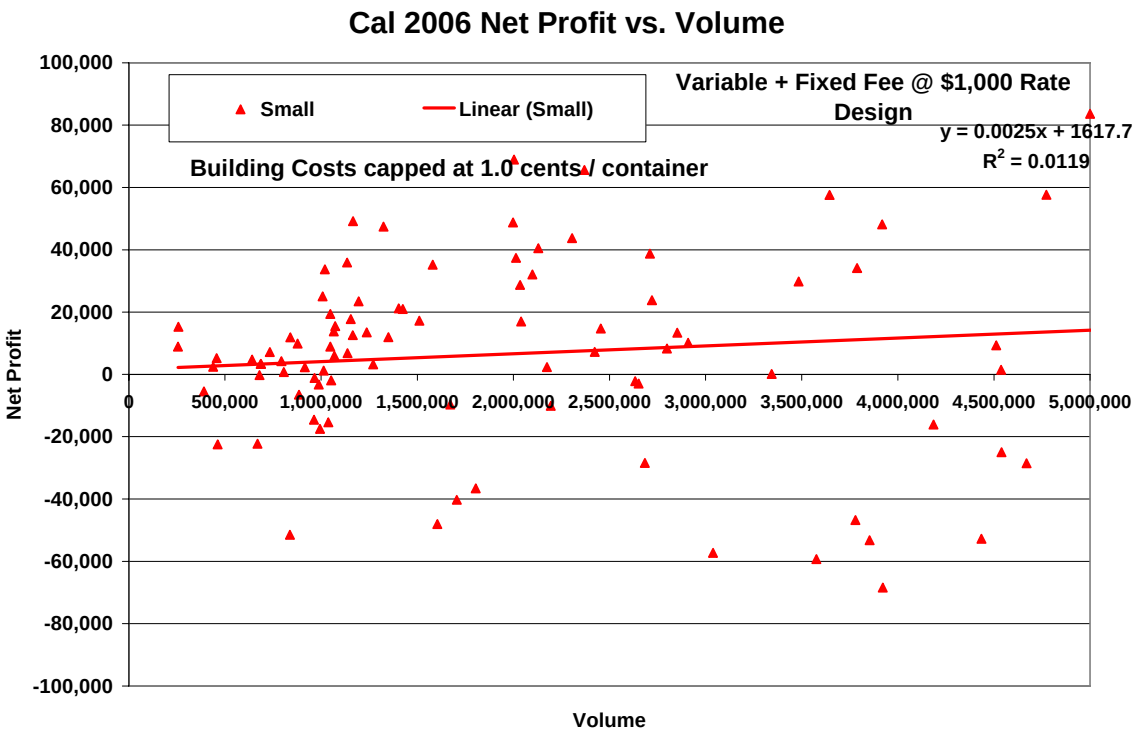
The DCA is of the view that based on the fairness, acceptability and gradualism Rate Design principles, it would be appropriate to phase in the fixed fee component for the smallest Depots. The DCA evaluated various scenarios and recommends a base fixed fee of $2,500 per month ($30,000 per year) be paid to each Depot in the Alberta beverage container return industry, with the proviso that the fixed fee be lowered for the smallest Depots as follows.

	Depot Size Range (containers/year)		# Depots Cal 2005 Study System	# Depots Cal 2006 Total System	Fixed Fee ($/ month/ depot)	Study System Fixed Fees ($/year)	Total System Fixed Fees ($/year)
1	-	500,000	6	14	$1,000	$72,000	$168,000
2	500,000	1,000,000	17	21	$1,500	$306,000	$378,000
3	1,000,000	2,000,000	29	36	$2,000	$696,000	$864,000
4	2,000,000	3,000,000	21	27	$2,500	$630,000	$810,000
5	3,000,000	4,000,000	10	16	$2,500	$300,000	$480,000
6	4,000,000	5,000,000	7	10	$2,500	$210,000	$300,000
7	5,000,000	10,000,000	27	36	$2,500	$810,000	$1,080,000
8	10,000,000	15,000,000	21	27	$2,500	$630,000	$810,000
9	15,000,000	20,000,000	17	17	$2,500	$510,000	$510,000
10	20,000,000	40,000,000	10	11	$2,501	$300,120	$330,132
	Total		165	215		$4,464,120	$5,730,132

The recommended monthly fixed fee for Depots under 500,000 containers per year is $1,000 per month, increasing to $2,500/month for all Depots with annual volume over 3 million containers. Administratively, the fixed fee amount could be determined annually based on the previous year volumes.[34]

The DCA notes that this proposed fixed fee structure will provide an incentive for smaller Depots to increase their volume returns. Small Depots have the opportunity, on average, to earn a profit, with Building Costs limited to 1¢/container.

[34] The DCA notes that the overall quantum of fixed fee payments has increased from the 2006 Phase II Report Rev 0 (from $5.63 to $5.73 million) due to the use of Cal 2006 actual volumes and the overall migration of Depots into next highest Depot Size Range.

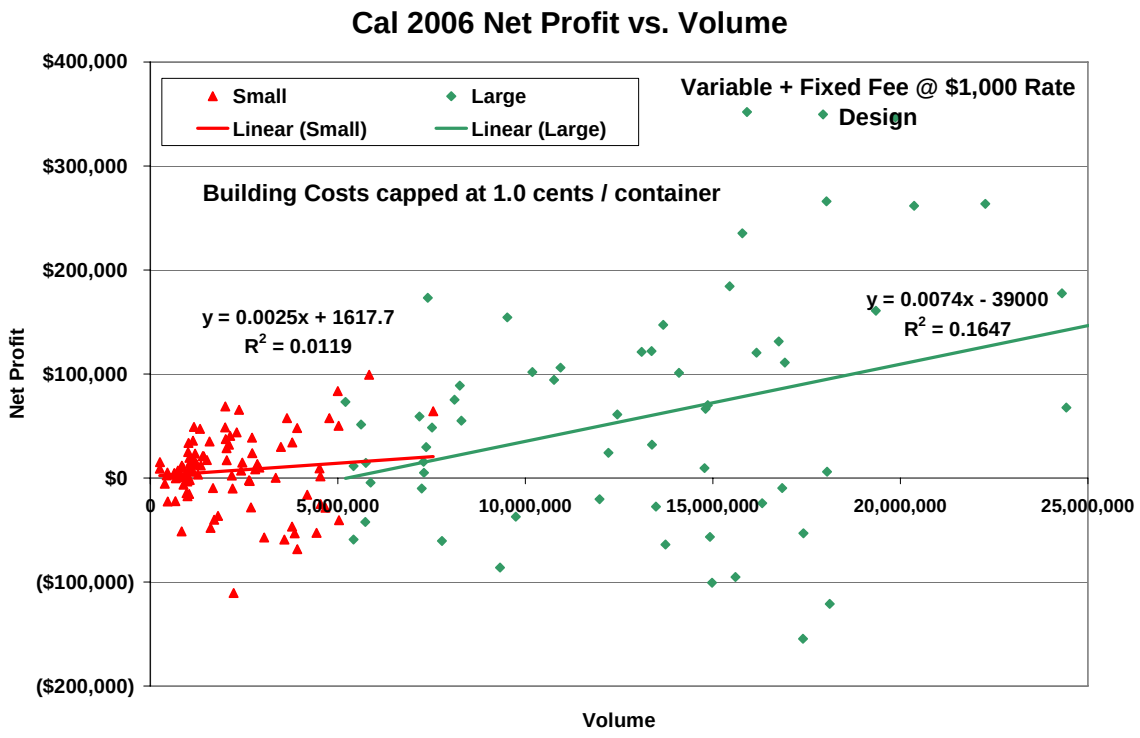


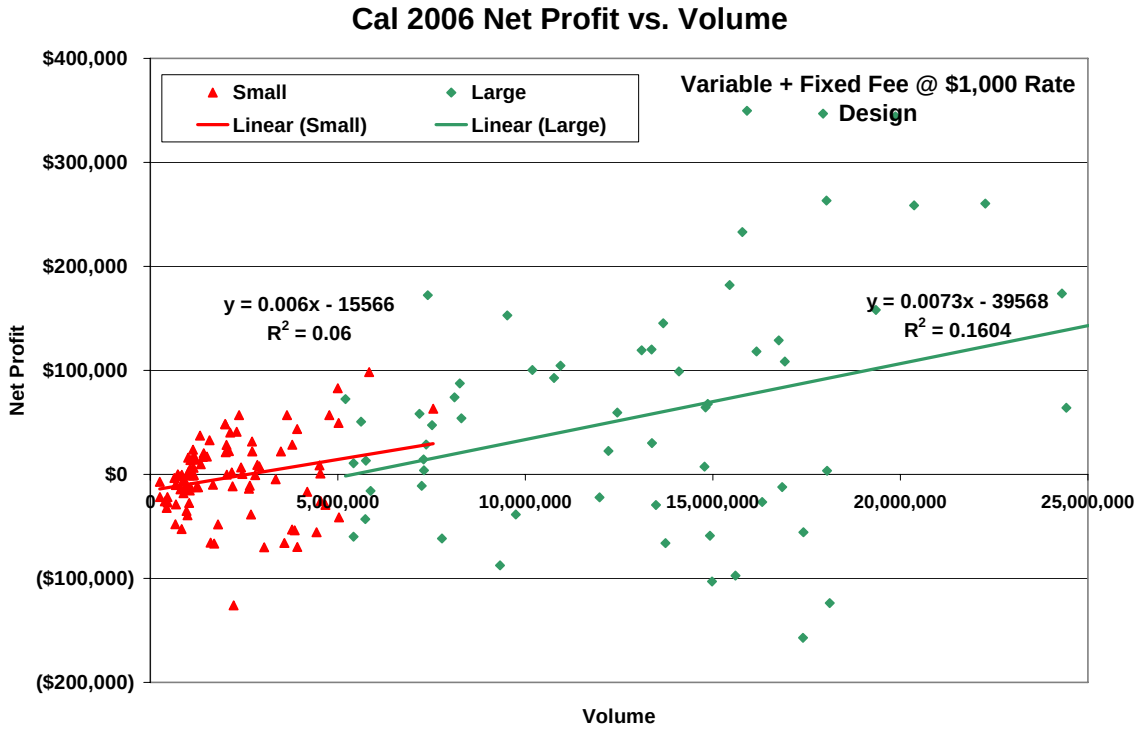
We believe that this recommendation will significantly help the profitability of Small Depots, while providing them with an economic incentive to maintain efficient operations. We recommend a rate level below the theoretical zero-volume fixed costs (with all building costs included) to mitigate some of the impacts on high volume Depots (thereby recognizing Rate Design Principle #5 and the concepts of gradualism that the principle espouses) and also because we believe that this level should be studied further in future UCA processes to determine whether or not the recommended fixed fee level will result in any unintended negative consequences.[35]

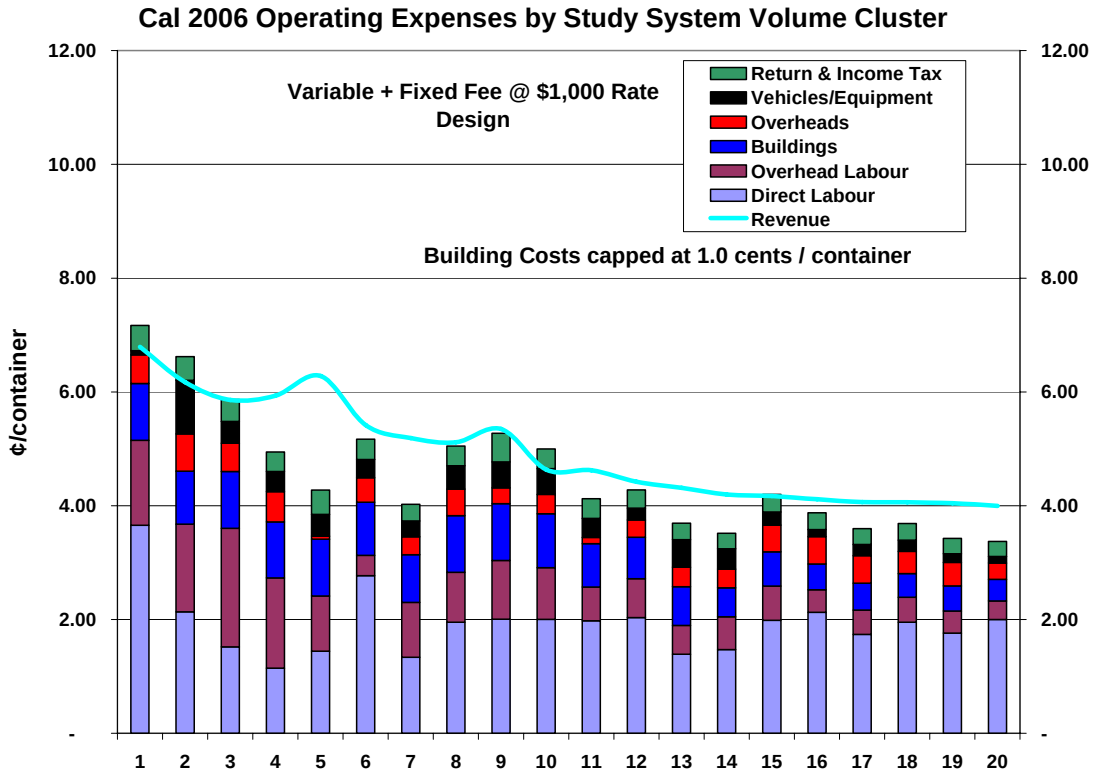
The following charts show the revenues, costs and profits based on the fixed fee level determination. The first chart shows that with Building costs capped at 1¢/container, Small Depots are, on average, slightly profitable. With the Building cost cap removed, Small Depots are generally unprofitable.

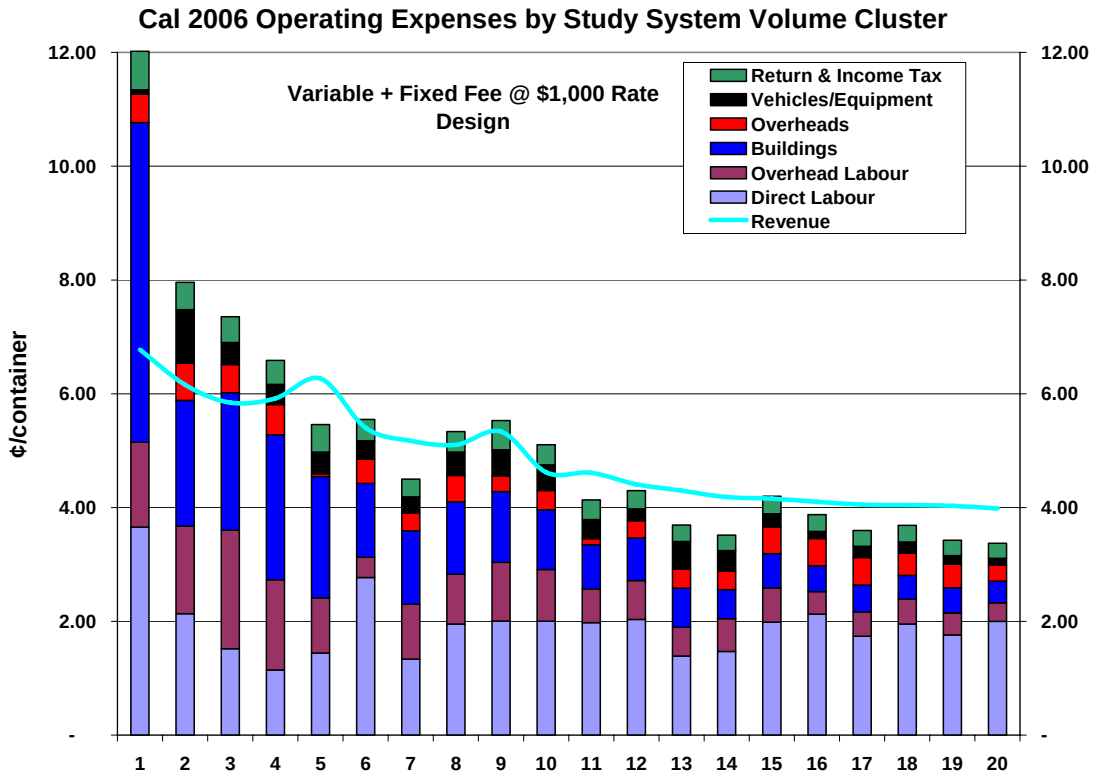
On the next two charts, on a unit cost and revenue basis, with Building costs capped at 1¢/container, unit revenues and costs generally track, across the Volume Clusters. Without Building costs capped at 1¢/container, the smallest Depots do not recover the Cal 2006 costs.

[35] For example, abnormally high profits for small Depots that are not open very often. Minimum service levels should be maintained to obtain the fixed fee.


Cal 2006 Net Profit vs. Volume
Small
Large
Linear (Small)
Linear (Large)
Variable + Fixed Fee @ $1,000 Rate Design
Building Costs capped at 1.0 cents / container
y = 0.0025x + 1617.7
R2 = 0.0119
y = 0.0074x - 39000
R2 = 0.1647
$400,000
$300,000
$200,000
$100,000
$0
($100,000)
($200,000)
Net Profit
0
5,000,000
10,000,000
15,000,000
20,000,000
25,000,000
Volume

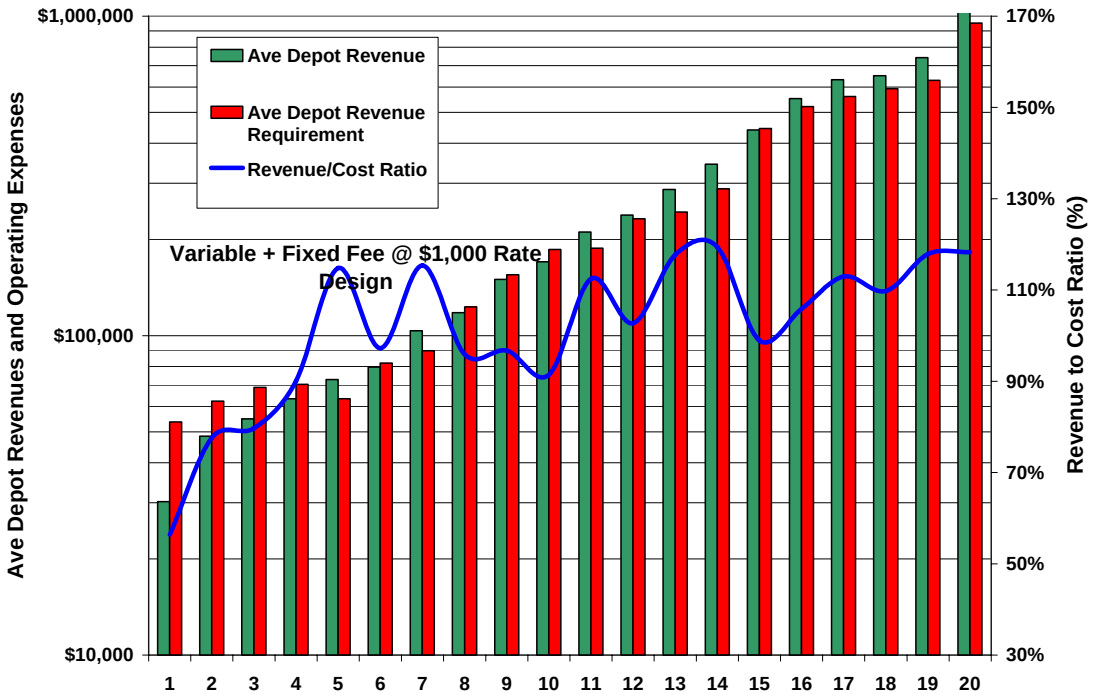

Cal 2006 Net Profit vs. Volume
Small
Large
Linear (Small)
Linear (Large)
Variable + Fixed Fee @ $1,000 Rate Design
y = 0.006x - 15566
R2 = 0.06
y = 0.0073x - 39568
R2 = 0.1604
$400,000
$300,000
$200,000
$100,000
$0
($100,000)
($200,000)
Net Profit
0
5,000,000
10,000,000
15,000,000
20,000,000
25,000,000
Volume


Cal 2006 Operating Expenses by Study System Volume Cluster
Variable + Fixed Fee @ $1,000 Rate Design
Return & Income Tax
Vehicles/Equipment
Overheads
Buildings
Overhead Labour
Direct Labour
Revenue
Building Costs capped at 1.0 cents / container
¢/container
12.00
10.00
8.00
6.00
4.00
2.00
-
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20


Cal 2006 Operating Expenses by Study System Volume Cluster
Variable + Fixed Fee @ $1,000 Rate Design
Return & Income Tax
Vehicles/Equipment
Overheads
Buildings
Overhead Labour
Direct Labour
Revenue
¢/container
12.00
10.00
8.00
6.00
4.00
2.00
-
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

The following chart shows that revenues and costs generally align and that revenue to cost ratios by Volume Cluster are around the 100% level, except for the smallest Depots with full Cal 2005 Building costs.

Cal 2006 Average Depot Costs and Revenues and Revenue to Cost Ratio by Volume Cluster



The maximum revenue increase for the smallest Depots under Volume Cluster 1 is under 77%. The average annual increase in revenue for all Small Depots is about $21,700 per year from current Handling Commissions rates. The DCA is of the view that an average annual revenue increase of $21,700 per Small Depot is appropriate. The average revenue decrease from current Handling Commissions for Large Depots is about $9,800.

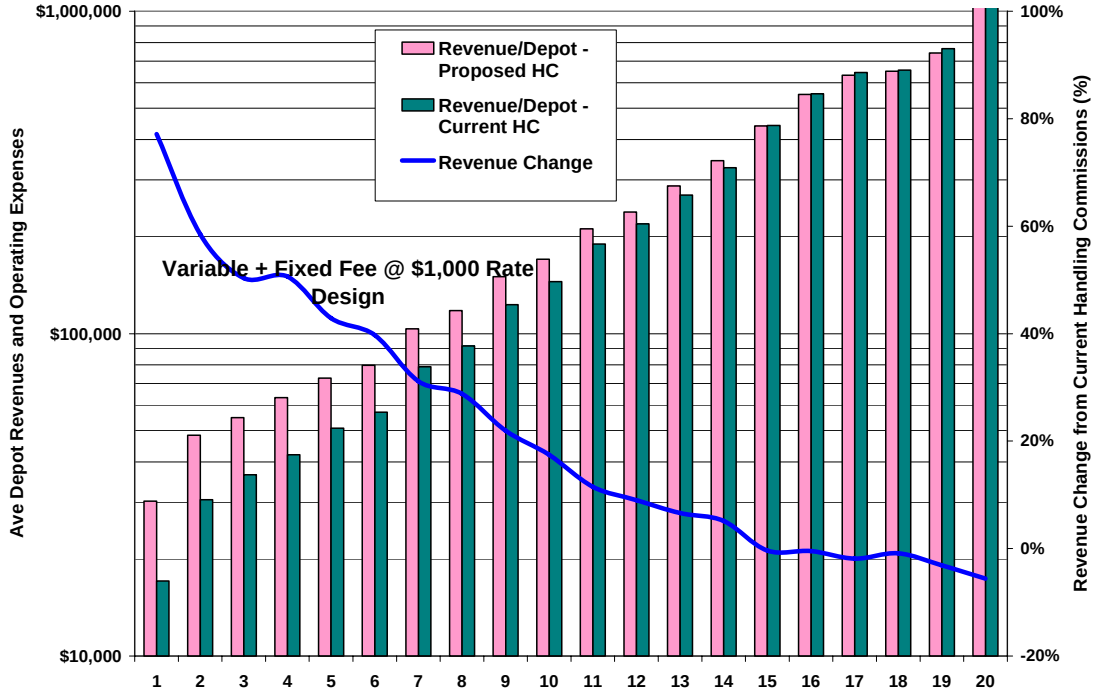
	Handling Commissions + Misc. Revenue at Current Rates	Handling Commissions + Misc. Revenue at Proposed Rates	Difference	% Difference
Small	$90,070	$111,742	$21,671	24.1%
Large	$606,528	$596,802	-$9,726	-1.6%

Revenue Impact by Volume Cluster

Proposed Rates: **Variable + Fixed Fee @ $1,000 Rate Design**

Volume Cluster	Average Depot Volume	Average Revenue per Depot: Handling Commissions + Misc. Revenue at Current Rates	Average Revenue per Depot: Handling Commissions + Misc. Revenue at Proposed Rates	Difference	% Difference	Unit Difference (¢/container)
1	446,496	$17,078	$30,254	$13,176	77.1%	2.95
2	786,499	$30,556	$48,423	$17,867	58.5%	2.27
3	939,025	$36,504	$54,880	$18,376	50.3%	1.96
4	1,071,030	$42,090	$63,392	$21,302	50.6%	1.99
5	1,161,447	$50,935	$72,783	$21,848	42.9%	1.88
6	1,477,083	$57,069	$79,755	$22,686	39.8%	1.54
7	2,001,416	$78,941	$103,532	$24,592	31.2%	1.23
8	2,313,480	$91,599	$117,997	$26,398	28.8%	1.14
9	2,812,156	$123,025	$150,035	$27,010	22.0%	0.96
10	3,685,058	$144,862	$170,184	$25,322	17.5%	0.69
11	4,579,904	$189,440	$211,193	$21,753	11.5%	0.47
12	5,411,677	$218,745	$238,471	$19,727	9.0%	0.36
13	6,676,848	$269,171	$286,950	$17,778	6.6%	0.27
14	8,223,346	$327,181	$343,993	$16,812	5.1%	0.20
15	10,598,464	$442,143	$440,461	-$1,681	-0.4%	(0.02)
16	13,458,349	$554,303	$551,750	-$2,553	-0.5%	(0.02)
17	15,635,200	$645,207	$633,075	-$12,132	-1.9%	(0.08)
18	16,098,949	$656,801	$651,102	-$5,698	-0.9%	(0.04)
19	18,401,898	$765,330	$741,583	-$23,746	-3.1%	(0.13)
20	28,265,105	$1,192,087	$1,125,504	-$66,583	-5.6%	(0.24)

Cal 2006 Average Depot Costs and Revenues and Revenue to Cost Ratio by Volume Cluster



5.2.3 Fixed Charge Container Stream Allocation

The DCA is of the view that allocating the fixed costs associated with the fixed Depot charge on the basis of Buildings and/or Labour costs would be appropriate, as we believe that this most properly reflects the nature of these costs. However, this approach would require separate variable BCMB charges that varied across each Forecast Group. For administrative simplicity, the DCA is of the view that the variable BCMB charge should be uniform across all Container Streams (similar to the existing BCMB fee).

At the proposed fixed fee levels for the 215 Depots in the province, the total cost of the fixed charge is $5.7 million. This equates to a BCMB variable charge of 0.40¢/container. This calculation is shown in Schedule 1.3, Appendix I.

5.2.4 Depot Impact

The implementation of a fixed charge per Depot will result in a shift in revenue from Large Depots to Small Depots. We do not believe that the cost structure for any Depot will be materially impacted by the implementation of a fixed charge. The implementation of a fixed charge, as per our recommendations below, will not impact Manufacturers. Any variance resulting from forecast to actual return volumes will be managed by the BCMB.[36]

The tables above shows that the smallest Depots (Volume Cluster 1) will see a revenue increase of over 77%, whereas the largest Depots (Volume Cluster 20) will see a revenue reduction of over 5%. On average, Small Depots will see a revenue increase of about $21,700 per year (24%), whereas the Large Depots will see an average reduction of about $9,800/year (1.6%).

The above two tables demonstrate that the implementation of a fixed fee results in a revenue shift from high volume Depots to low volume Depots, and also demonstrates that the higher the Depot's volumes, the greater the absolute impact. However, we also note that both the percentage impact and the unit impact declines as volumes increase.

In evaluating our fixed fee proposal we considered the impact on Large Depots. Clearly, the above tables demonstrate that total revenues will fall for Large Depots. However, we believe this is offset by the recognition of the economy of scale in size that large Depots have related to fixed costs. In essence, a purely variable rate assumes that building costs will increase with volume, when we observe that they do not. Further, we are of the view that the existence of a fixed fee should lower the investment risk of a Depot because the implementation of the guaranteed revenue stream reduces the risk of fixed cost recovery – particularly for Small Depots.

We note from Schedule 11, Appendix I of the 2006 Phase I Report Rev 1 that the average container 2006 Revenue Requirement of 4.20¢/container contains approximately 0.66¢/container of Cal 2006 building costs. The highest average unit cost reduction in the table above for Volume Cluster 20 shows an average per container reduction of 0.24¢. The impact of the fixed fee proposal still provides compensation for building costs for Large Depots.

[36] This is outlined in Section 5.2.5 below.

We have also calculated that the break-even volume (or indifference volume) for Large Depots is approximately 7 million containers per year. In other words, compared to an all-variable fee, a Large Depot below 7 million containers per year will, on average, receive higher total revenue, and a Large Depot above 7 million per year in volume will receive a lower total revenue amount, with the proposed fixed fee Rate Design.[37]

5.2.5 Fixed Charge Implementation

We believe that there are three possible mechanisms available for Manufacturers to pay the fixed charge:

1. Manufacturers pay variable component of the fixed charge to the BCMB, who then pays the Depots the fixed monthly fee.

2. Manufacturers pay fixed charge to BCMB, and the BCMB then pays the Depots the fixed monthly fee.

3. Manufacturers pay fixed charges directly to the Depot

Options 1 and 2 above are similar, and are discussed together below, followed by a discussion of Option 3.

5.2.5.1 Manufacturers pay BCMB who then pay the Depot

We believe that there is a significant benefit in having the fixed Depot charge flow through the BCMB and then to the individual Depots. The benefit is that this will provide a mechanism to enforce BCMB policy compliance among Depots.

Currently, it is our understanding that a number of Small Depots are deficient in complying with BCMB Depot standards. This is, in fact, not surprising given our findings concerning Small Depot profitability. In large part, we believe that this non-compliance is a result of the systemic non-profitability of the majority of Small Depots. The BCMB has, in the past, been in the "Catch-22" position where a Depot threatens to shut down if the BCMB insists on the Depot rectifying deficiencies.

Generally, in the past, the BCMB has been reluctant to enforce Depot standards in such instances where the Depot threatens to shut down because of the environmental public interest consideration that the public interest is better served by having an operating non-compliant Depot than no Depot in regions where the existence of two Depots is economically unfeasible (primarily rural areas). Because of the lack of profitability of the Small Depots, the option of replacing the Depot operator has not been feasible, as there is typically no interest from other potential operators to take over the business given the existing cost and revenue structure.

It is our view that the fixed fee will go a significant way in rectifying the issue of profitability in Small Depots. However, it is clear to us that once this occurs, Depots who are no longer in

[37] Further to HCRP-DCA-25 b), the break-even amount for Large Depots can be derived by solving for the x (volume) variable when the y variable (profit) is zero using the two best fit regression equations for the variable only (page 33) and proposed fixed fee regression (page 46) equations.

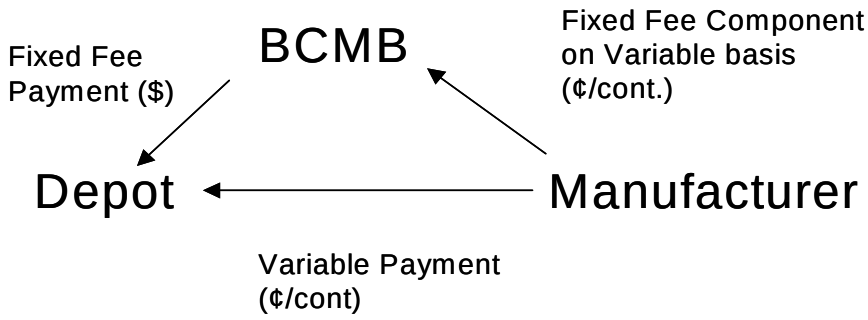
compliance with current BCMB standards could be brought into compliance. An effective incentive would be the loss of some part or all of the fixed fee payment. While the BCMB must, of course, first determine parameters of such a consequence, we believe that this mechanism would be effective in increasing the quality of service level provided by the Alberta beverage container return industry and would protect the public interest.

Presuming this type of compliance incentive is in the public interest, we must then turn our thoughts to the treatment of variances resulting from the payment of the fixed fee.

Under our fixed fee proposal, there will be a variance created between the amount from the Container Recycling Fee allocated to Handling Commissions and the amount due to the Depots in aggregate. The quantum of this variance will depend on the extent to which container return volumes vary once the proposed 2006 Handling Commissions are implemented (in 2007 or 2008) from the 2006 actual volumes used to generate the proposed 2006 Handling Commissions.

Another variance is also created because of the seasonality component of the return volumes. In low volume months, the variable fixed-fee component of the amount of the CRF allocated to Handling Commissions by the Manufacturers will be lower in aggregate than the fixed fee due to the Depots in that month, because of the lower volumes. In summer months, the reverse is true – the variable fixed-fee component will be higher than the amount payable the Depots.

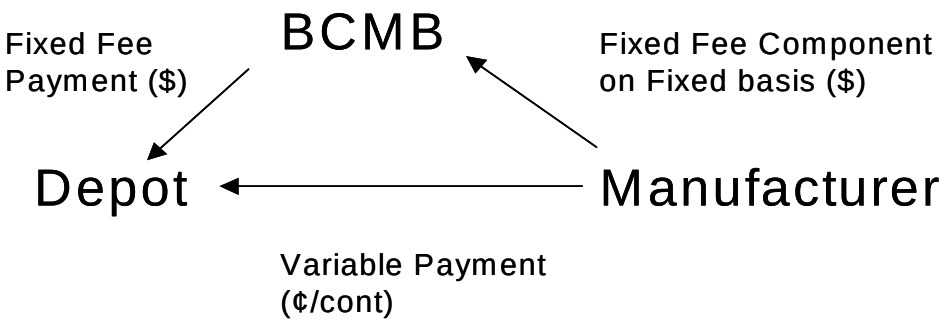
We will now turn to a discussion of the three options noted above. In the first case, the Manufacturer would split the Handling Commission and pay the variable component to the Depot and the portion of the Handling Commission representing that container's contribution to the fixed charge to the BCMB. The BCMB would then remit to the Depots the fixed fee on a monthly basis. In this scenario, the BCMB would manage forecast variances internally and surpluses or shortfalls would be dealt with through the general operating revenues and credit facilities of the BCMB. The following is a picture of the flow of money:



In the example above, there would be no impact to a Manufacturer, save for splitting out the payment between the variable component paid directly to the Depot, and the fixed component paid on a variable basis to the BCMB. No structural changes to the manufacturers' financial systems are anticipated. The seasonal and forecast variances would be managed by the BCMB.

Alternatively, the second option involving the BCMB is that the Manufacturer would pay the monthly fixed fee to the BCMB, and the BCMB would then remit that fee to the Depots. In this

circumstance, the only difference is that the Manufacturers would manage seasonal and forecast variances, and the transaction with the BCMB would be primarily a flow-through subject to withholding due to regulatory non-compliance. The following diagram shows the funds flow under this proposal:



This option would imposed increased financial risk on the manufacturers and require clear communications between the BCMB and the manufacturers of any changes in Depot status (if a Depot opens or closes, the manufacturers would need to be advised to revise their payments).

5.2.5.2 Manufacturers pay Depots directly

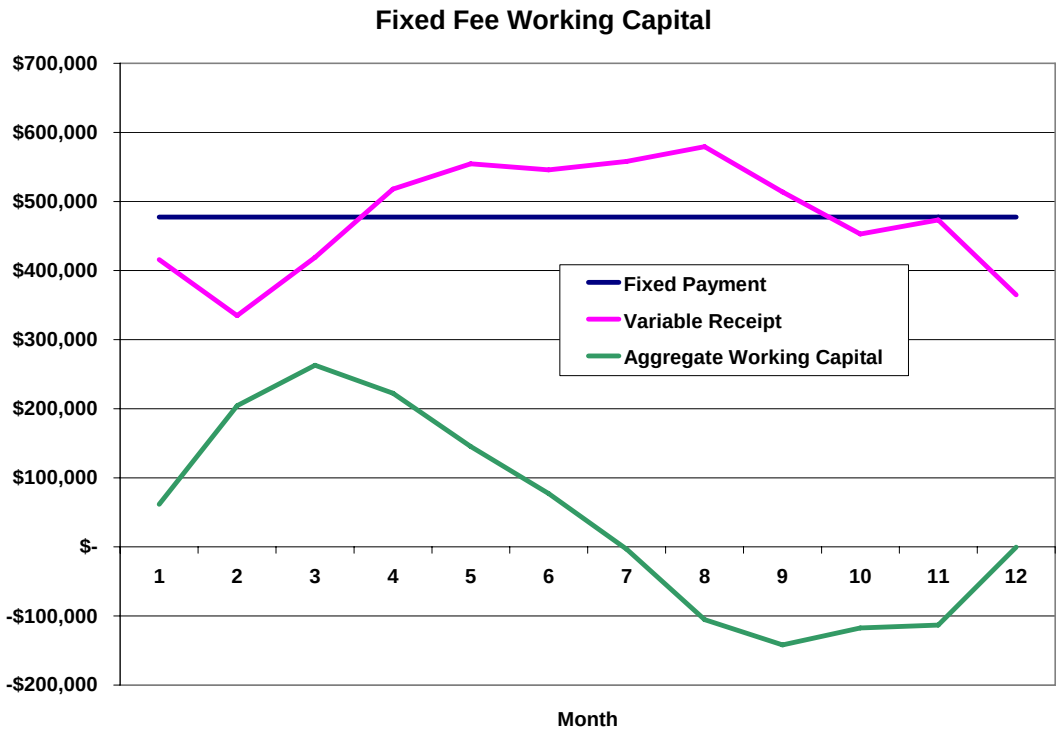
Alternatively, the Manufacturers could pay the fixed fee to the Depots directly. In this case, the Manufacturers would also manage the seasonal and forecast variances. We believe that in this proposal the ability for the BCMB to utilize the fixed fee as an incentive to comply with BCMB rules would be hampered. Although it would be possible to direct the Manufacturer to withhold payment, we do not believe that the Manufacturers should be involved in enforcement of BCMB Depot compliance. We believe this firstly because we believe that BCMB Depot compliance matters should be confidential between the Depot and the BCMB, and secondly because we believe that any withholdings due to BCMB non-compliance should not reside with the manufacturers. We believe any withholdings should be retained by the BCMB, and used to offset BCMB operating expenses.

5.2.5.3 Working Capital Analysis

Regardless of whether the Manufacturers pay the fixed fee to the BCMB or the Depots, there will be a working capital requirement because the fixed payment will not equal the portion of the cost in the CRF relating to the fixed payment. We provide an estimate of the working capital cost below.

We calculated monthly aggregate volumes for 2006 by taking actual volumes for the first six months and forecast Cal 2006 volumes multiplied each month by the proportion of aggregate growth from Cal 2005 to Cal 2006 for the last six months. We then calculated receipts based on the average CRF relating to the average fixed fee of 0.40¢/container.

We then compared monthly fixed payments to monthly variable receipts and calculated an aggregate surplus or shortfall over the year. The following chart demonstrates the results:



Working Capital is required in the first half of the year, and is repaid in the second half (the green line in the chart). The peak requirement is approximately $260,000, and we estimate the approximate annual cost of the working capital is about $6,000, assuming a monthly interest based on a rate of prime plus 3%.

5.2.5.4 Recommendation

We recommend that the Manufacturers pay the BCMB the fixed fee component on a variable basis of 0.40¢/container. We believe that this will be least intrusive to the Manufacturers from the status quo, and will provide the BCMB with a mechanism to properly ensure that Depot standards are brought up to the appropriate level. It is our view that this proposal most protects the public interest in regards to Depot compliance with BCMB standards. We believe that the potential benefits to the Alberta beverage container return industry outweigh the working capital, implementation and administrative costs the BCMB will incur.

5.2.6 British Columbia

The DCA is aware a similar fixed fee program in British Columbia. Encorp Pacific has set up a system of “Presence Grants” up to a maximum of $900 per month per depot that reduces as the volume increases. Depots with annualized volumes less than 600,000 containers get the maximum $900/momth, with the amount reduced to zero for Depots that have annual returns of 1,500,000 containers. It is our understanding that the costs of the grant program results in a direct increase in System Cost for Manufacturers. The Presence Grants are paid each quarter. The DCA understands the quantum of the Presence Grants is currently under review.

The DCA has considered a form of Presence Grants for Alberta. The DCA is of the view that Presence Grants will result in non-uniform Handling Commissions which may violate the Rate Design principles relating to fairness and undue discrimination. In addition, unlike the B.C. solution to small volume depot un-profitability where the grant phases out at 1.5 million containers per year, the DCA notes that Depots up to 7 million containers per year in Alberta are generally unprofitable based on the Cal 2006 cost determinations and the proposed 2006 Handling Commissions. If Alberta were to adopt the B.C. Presence Grant Rate Design, the DCA is of the view that some form of grant should be available to all Small Depots.

5.3 RATE DESIGN PRINCIPLES

In Section 1.4 the DCA provided a review of the fundamental Rate Design principles and a review of how we see their application to the determination of 2006 Handling Commissions. In this section we will provide our review of the Rate Design criteria to the recommended 2006 Handling Commissions:

1. The application must be practical with such attributes as: simplicity, understandability, public acceptability and ease of application.

   Although the proposed 2006 Handling Commissions adds the complexity of a fixed monthly payment from the BCMB to Depots, from the manufacturer's perspective payments to Depots and the BCMB remain based on a volumetric rate. The Depots are proposed to have a second revenue stream from the BCMB and this will require the BCMB to incorporate systems to make the monthly payments to the Depots.

   Notwithstanding, the proposed structure of the 2006 Handling Commissions remain simple, will be easy to understand and should be acceptable to all parties. The added complexity and administrative expense for the BCMB is warranted, in our view, considering the benefits related to a better match for Depot revenues to cost causation and the ability for the BCMB to better manage Depot compliance.

2. Freedom from controversies as to proper interpretation.

   The DCA is of the view that the proposed 2006 Handling Commissions will be relatively straightforward to implement and that there will be no controversies as to proper interpretation.

3. Effectiveness in yielding total Revenue Requirements under the fair return standard.

   The DCA is of the view that the proposed fixed fee payment to the Depots will provide a significantly better rate that will provide a total 2006 Revenue Requirement and provide **each** Depot with the opportunity to earn a fair return.

   As noted in Section 1.4, those Depots that are more efficient than the industry standard average have the opportunity to earn an above average return, and those less efficient will (and should) earn a less than average return. Since the current ¢/container Handling Commissions do not differentiate between low and high volume Depots, the recovery of fixed costs for low volume Depots is problematic. The

proposed fixed fee payment will provide a better opportunity for all Depots to earn a fair return.

4. Revenue stability from year to year.

The proposed 2006 Handling Commissions should result in the Depots receiving revenue that is relatively consistent from year to year, subject to product mix changes and general volume growth.

5. Rate stability from year to year.

The DCA is of the view that the magnitude of the proposed 2006 Handling Commission changes for individual Container Streams is warranted given the history of the Handling Commission setting process and the interim nature of the current Handling Commissions.

While it could be argued that individual Handling Commissions increasing or decreasing by 50% or more could be considered rate shock, the DCA notes the following:

- Many manufacturers have products that are sold in different Container Streams, therefore most manufacturers will see a significantly lower overall rate increase or decrease in aggregate. For example, while we are proposing an increase in the Pop Can rate, pop manufacturers will also benefit from a decrease in the PET 0-1 L rate.

- The top 8 Forecast Groups, which account for 97% of the total volume, are proposed to have a maximum rate increase of 40%, with the exception of Import Beer Bottles (see Schedule A-1, Appendix II). The DCA notes that Import Beer Bottles are currently processed by the ABCRC in the same manner as Glass 0 to 1 litre. The Import Beer Bottles and Glass 0 to 1 litre container streams are proposed to have similar 2006 Handling Commissions at 4.57 and 4.35¢/container, respectively.

- The Handling Commission charges that were implemented on June 7, 2002 had maximum increases of over 160% for certain Container Streams, despite the Handling Commissions increasing overall by about 15%. For the eight largest Container Streams, the DCA is proposing that there is no single Container Stream that will receive a large increase or decrease from consecutive Handling Commission adjustment processes. Please see Section 6.3 - Rate Shock Analysis.[38]

The DCA believes that in light of the development of the Handling Commissions setting process, the gradualism Rate Design criteria will not be unduly violated.

[38] Compare columns g and I, lines 1 to 8 on Schedule A-1, Appendix II.

6. Fairness of the apportionment within the rates of the total Cost of Service among the different customers.

   The DCA is of the view that it has allocated the recommended Cal 2006 forecast costs to operate the Depots to the Container Streams in a fair manner, given the availability and quality of the data available. As well, we believe we have applied revenues to Depots in a fair manner that allows all Depots to obtain a fair return for the risks of the enterprise.

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

   The DCA is of the view that “undue discrimination” has not occurred in the proposed 2006 Handling Commissions, as we believe costs have been allocated to the Container Streams in a fair, transparent, and rational manner, in light of the data available and observations of actual Depot operations.

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

   The DCA believes that the proposed ¢/container rate from the Manufacturers to the Depots and the BCMB will continue to encourage efficiency and will not result in wasteful use of service and will continue to allow for all types of containers to be returned. The proposed fixed fee payment from the BCMB to the Depots should result in improved efficiency, as all Depots will have the opportunity to receive a fair return.

9. Rates should promote economic efficiency

   The proposed 2006 Handling Commissions will continue to promote economic efficiency and ensure that the cost to the Alberta beverage container return industry is as low as possible through the profit motive of the individual Depots.

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

    The DCA is of the view that the proposed 2006 Handling Commissions do not contain any internalities or externalities.

6.0 Impact Analysis

6.1 DEPOT IMPACT

As noted in Section 5.2.2, the impact of the fixed fee Rate Design results in a shifting of system revenue from high volume Depots to low volume Depots.

On a 100% variable rate basis (i.e. ignoring the fixed fee rate adjustment), we would expect no material impact on aggregate Depot revenue as a result of the Handling Commissions changes because the total average system Revenue Requirement per container does not change as a result of the Rate Design (other than the increase from about 4.02 to 4.23¢/container). However, as noted above, the DCA speculates that the significant proposed increase in the 2006 Handling Commissions for BDL Container Streams does impact revenues by Depot.

With the fixed fee, Small Depots are more profitable, however, on an aggregate basis they are still unprofitable based on the Cal 2006 cost determinations.

Profit Impact by Volume Cluster

Proposed Rates: **Variable + Fixed Fee @ $1,000 Rate Design**

Volume Cluster	Average Depot Volume	Average Profit per Depot: Profit at Current Rates	Average Profit per Depot: Profit at Proposed Rates	Difference	% Difference
1	446,496	-$36,475	-$23,403	$13,072	35.8%
2	786,499	-$31,675	-$13,973	$17,702	55.9%
3	939,025	-$32,137	-$13,983	$18,154	56.5%
4	1,071,030	-$27,674	-$6,998	$20,676	74.7%
5	1,161,447	-$7,327	$9,376	$16,703	228.0%
6	1,477,083	-$24,267	-$2,272	$21,994	90.6%
7	2,001,416	-$10,322	$13,802	$24,124	233.7%
8	2,313,480	-$30,334	-$5,035	$25,300	83.4%
9	2,812,156	-$17,512	-$5,098	$12,414	70.9%
10	3,685,058	-$39,598	-$15,980	$23,618	59.6%
11	4,579,904	$10,183	$23,437	$13,254	130.2%
12	5,411,677	-$9,125	$6,330	$15,455	169.4%
13	6,676,848	$30,389	$43,157	$12,767	42.0%
14	8,223,346	$43,098	$55,934	$12,837	29.8%
15	10,598,464	$2,955	-$4,742	-$7,698	-260.5%
16	13,458,349	$42,670	$30,765	-$11,905	-27.9%
17	15,635,200	$91,424	$72,696	-$18,728	-20.5%
18	16,098,949	$73,379	$57,964	-$15,415	-21.0%
19	18,401,898	$143,914	$112,489	-$31,425	-21.8%
20	28,265,105	$252,777	$174,119	-$78,658	-31.1%

We also observe that the change in allocation shifts revenue from Large Depots to Small Depots because the Small Depots' profit rises by approximately $18,500 on average.

	Profit at Current Rates	Profit at Proposed Rates	Difference	% Difference
Small	-$21,355	-$2,816	$18,539	-86.8%
Large	$85,076	$67,798	-$17,278	-20.3%

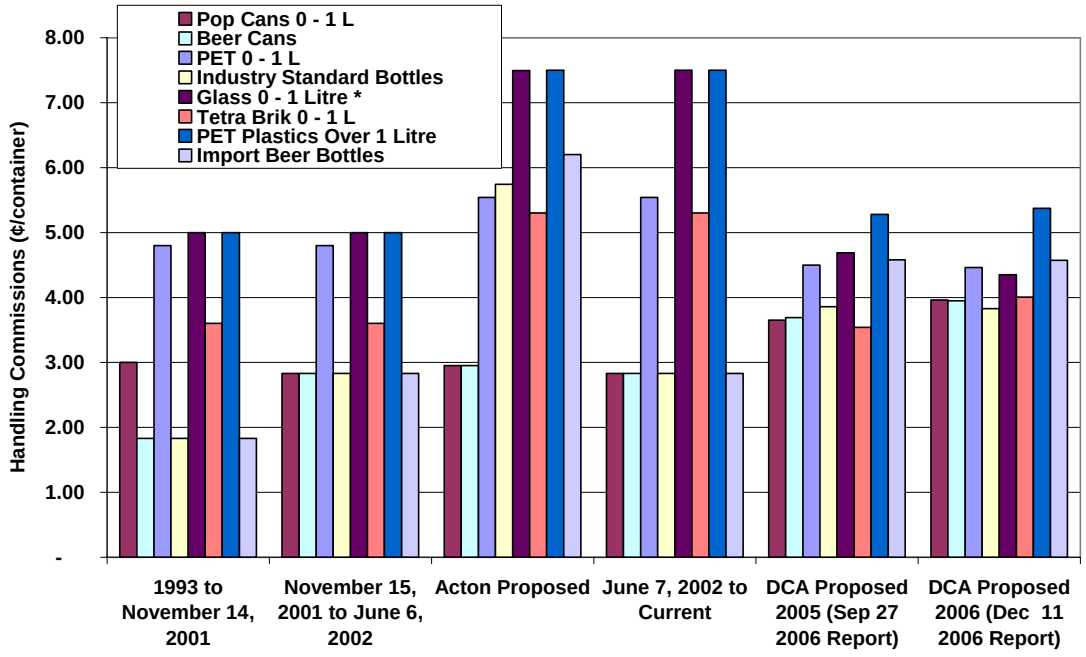
6.2 CONTAINER STREAM AND MANUFACTURER IMPACT

We calculated the rate impact by Container Stream and also by manufacturer. The results of the analysis are contained in Schedules B and B-1, Appendix II.

From Schedule B, based on Cal 2006 forecast volumes, the largest Container Stream cost increase is for Pop Cans at $4.5 million. The largest decrease is for PET 0 to 1 litre at $2.7 million.

The following chart graphically depicts the costs/container that are included in the proposed Handling Commissions for the 8 highest volume Container Streams.

Comparison of Historical and Proposed 2005 Handling Commissions for Large Volume Container Streams



We also studied the impact by Collection System Agent. Based on Cal 2006 forecast volumes, the total cost for ABCRC declines by $3.1 million (7% reduction), and the total cost for BDL increases by $5.2 million (39% increase). Note that the proposed 2006 Revenue Requirement suggests an overall rate increase.

6.3 RATE SHOCK ANALYSIS

In making our 2006 Handling Commissions recommendation, we considered whether rate shock would exist from the implementation of our rates. We first considered the magnitude of previous rate changes. Since 1993, there have been three sets of Handling Commissions that have been applied in Alberta (Schedule A & A-1, Appendix II):

1. 1993 to November 15, 2001

   Prior to November 15, 2001, the beer containers and all other beverage containers were collected through two different systems. Beer containers had a Handling Commission of 1.83¢/container. The manufacturers collected a large portion of the empty beer containers when full beer containers were delivered to wholesale customers. The non-beer containers had Handling Commissions ranging from 3 to 5 ¢/container.

2. November 15, 2001 to June 7, 2002

   After the integration of the two collection systems, the beer container Handling Commission was increased from 1.83 to 2.83¢/container, an interim rate.

3. June 7, 2002 to current

   The recommendations from the Acton study were implemented on June 7, 2002 for all non-beer containers for a period of one year to June 7, 2003. The existing beer rate was continued.

   Non-Beer container Handling Commissions were changed to those recommended in the Acton study.

Schedule B and B-1, Appendix II shows the impact on the Manufacturers from these rate changes. The DCA notes that prior rate increases have been over 50%.

For the non-beer containers, we note that Pop Cans is the only large volume Container Stream that will receive a large Handling Commission increase (39%). In general, for the other non-beer Container Streams the proposed Handling Commissions will decrease to levels near those in place prior to June 7, 2002.

For beer related Container Streams, the proposed 2006 Handling Commissions will impose significant increases from the interim 2.83¢/container rate that has been in place since 2002.

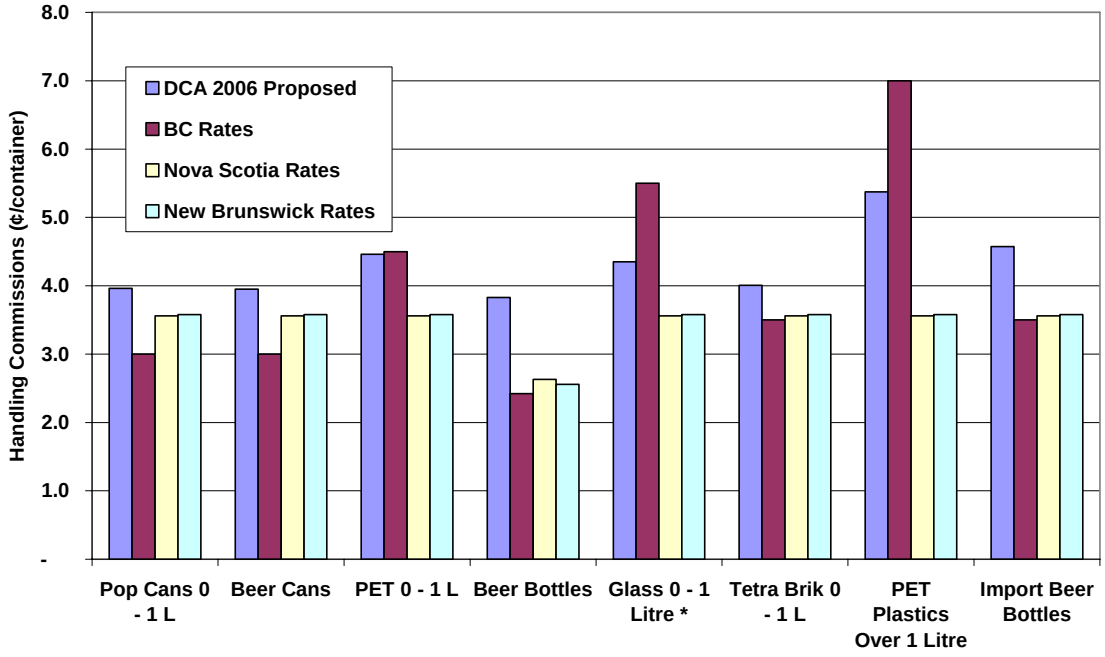
The DCA notes that Industry Standard Bottles and Sleemans are the only two container Streams that are processed by BDL. The other BDL Container Streams (Beer Cans, Import Beer PET 0 to 1 l, Import Beer (Bi-Metal) and Imports 0 to 1 l) are processed by ABCRC under contract. Considering that these other BDL Container Streams have similar characteristics to comparable ABCRC Container Streams, the DCA is of the view that the 2006 Handling Commissions should be similar. For example, Glass 0 to 1 litre should have similar handling characteristics and costs compared to Import Beer Bottles – both Container Streams are glass, have relatively large volumes and are sorted into large bags for shipment to ABCRC.

The DCA is of the view that the greater rigor applied to the current 2006 Handling Commission determination process has resulted in a recommendation of 2006 Handling Commissions that more accurately reflect actual Cost Incurrence under the current Alberta beverage container return system for all Container Streams. Overall, we are of the view that the recommended 2006 Handling Commissions do not result in Handling Commission increases or decreases that would cause undue harm to the Manufacturers.

6.4 COMPARISON TO OTHER JURISDICTIONS

The DCA is aware that some other Canadian provinces have similar deposit based beverage container return systems. While each province has its own nuances, the handling commissions paid are somewhat comparable. The following chart shows handling commissions for other provinces.[39]

Comparison of DCA Recommended 2006 Handling Commissions to Other Canadian Provinces



In general, the handling commissions for reusable beer bottles are lower in other provinces. The DCA understands that in some provinces the handling commissions are negotiated directly between the Manufacturers and depots.

From the limited research the DCA has undertaken, the DCA is of the view that the quality, quantity and level of analysis undertaken to determine the recommended 2006 Handling Commissions for Alberta is greater than that employed in other provinces.

[39] References: BC: Mr. Neil Hastie, ENCORP Pacific, Nova Scotia: Final Report Of The Nova Scotia Handling Fee Committee, p. 3, March 2005, other provinces: Who Pays What, report by CM Consulting, p. 42, September 2006

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 CONCLUSIONS

From the experience gained by the DCA during the 2006 Phase II process we note the following conclusions:

1. The generally accepted regulatory Rate Design principles espoused by Bonbright and other scholars are applicable to the Alberta beverage container return industry under the industry framework directed by Madam Justice Bielby.

2. The functionalization of costs in the 2006 Phase I Report Rev 1 requires further classification in order for costs to be appropriately allocated to the Container Streams.

3. The use of multi-variable linear Regression to allocate Direct Labour costs did not provide the level of cost differentiation anticipated. The DCA is of the view that the underlying data does not support MVLR to allocate Direct Labour costs at this juncture. Additional analysis may prove beneficial for future Handling Commission determination processes.

4. The sophistication of the allocation methods available to allocate costs to the Container Streams was constrained by the 2005 UCA data collected, which in part is limited by the sophistication of the Depot's financial and operating records.

5. The DCA's concern with the observed disparity in profitability of Small and Large Depots can be mitigated to a significant degree with the application of the fixed fee payable from the BCMB to Depots.

6. Despite the relatively large percentage changes from the current to the proposed 2006 Handling Commissions that are recommended for most Container Streams, the DCA is of the view that the proposed 2006 Handling Commissions are appropriate in light of the development of the Alberta beverage container return industry under a regulatory model.

7.2 RECOMMENDATIONS / SUGGESTIONS FOR IMPROVEMENT

In the 2006 Phase I Report Rev 1 the DCA offered a number of recommendations and suggestions for improvement to enhance the Handling Commission determination process and the Alberta beverage container return industry. The 2006 Phase I Report Rev 1 recommendations and suggestions will also improve the Phase II process, especially UCA Modifications and standards for record keeping additional and higher quality data to the DCA. More extensive, higher quality data may improve the allocation of Direct Labour costs via the multi-variable linear Regression methodology.

APPENDIX I – SCHEDULES

Schedule 1

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
REVENUE REQUIREMENT

Line #	(a)	(b) Revenue Requirement ($)
1	Direct Labour	$27,742,427
2	Overhead Labour	$7,779,143
3	Building	$9,402,541
4	Equipment	$3,258,430
5	Overhead	$6,585,917
6	Return	$3,279,253
7	Income Tax	$2,981,108
8	Less: Miscellaneous Revenue	-$1,012,495
9	Cal 2006 Revenue Requirement	$60,016,324

Schedule 1.1

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
COST ALLOCATION SUMMARY

Line #	(a) Forecast Group	(b) ID	(b) Direct Labour	(c) Overhead Labour	(d) Buildings	(e) Equipment	(f) Overhead	(g) Return & Income Tax	(h) Forecast Group Revenue Requirement	(h) Unit Cost (¢/Container)
1	Pop Cans	1	7,650,693	2,147,755	1,893,514	803,572	1,782,147	1,447,235	15,724,916	3.99
2	Beer Cans	2	6,131,307	1,707,670	1,503,446	641,521	1,416,030	1,159,822	12,559,797	3.98
3	PET 0 to 1 l	3	4,802,914	1,432,911	2,101,637	621,068	1,237,577	908,538	11,104,645	4.49
4	Beer Bottles	4	2,917,993	766,763	636,879	291,998	630,971	551,979	5,796,583	3.86
5	Glass 0 to 1 l	5	1,932,766	543,076	802,689	247,395	467,408	365,610	4,358,943	4.38
6	Tetra 0 to 1 l	6	1,433,167	377,462	419,386	160,108	316,146	271,103	2,977,372	4.03
7	PET Over 1 l	7	1,055,382	286,897	915,867	206,239	271,757	199,640	2,935,783	5.40
8	Import Beer	8	1,041,766	305,256	515,588	142,769	266,830	197,064	2,469,272	4.60
9	Glass Over 1 l	9	146,874	38,701	179,748	37,628	39,486	27,783	470,221	6.22
10	Gable 0 to 1 l	10	146,306	39,788	131,516	29,314	37,922	27,676	412,522	5.47
11	Drink Pouch	11	98,936	26,903	30,778	11,283	22,634	18,715	209,249	4.11
12	HDPE Over 1 l	12	65,612	18,408	122,574	21,493	20,772	12,411	261,271	7.73
13	Polycups	13	57,572	16,097	12,305	5,766	13,255	10,891	115,887	3.91
14	Bi Metal 0 to 1 l	14	65,892	18,289	29,653	8,720	15,862	12,464	150,880	4.45
15	HDPE 0 to 1 l	15	32,274	8,864	14,484	4,293	7,688	6,105	73,707	4.43
16	Bi Metal Over 1 l	16	15,964	4,104	15,503	3,574	3,997	3,020	46,162	5.61
17	Gable Over 1 l	17	12,181	3,149	11,513	2,710	3,048	2,304	34,906	5.56
18	Bag in Box	18	4,748	1,245	15,896	2,829	1,793	898	27,408	11.21
19	Tetra Over 1 l	19	696	166	509	136	155	132	1,792	5.00
20	PVC Over 1 l	20	1,353	393	7,004	1,066	672	256	10,744	15.42
21	Polypropylene	21	5,500	1,412	4,793	1,115	1,347	1,040	15,207	5.37
22	PVC 0 to 1 l	22	854	168	486	185	153	162	2,007	4.56
23	Other	23	11	3	35	3	5	2	60	10.52
24	Sleemans	24	120,000	33,109	35,299	13,359	27,753	22,700	252,220	4.08
25	Import Beer PET 0 to 1 l	25	92	19	39	16	16	17	199	4.19
26	Import Beer (Bi-Metal)	26	1,291	416	1,189	227	391	244	3,758	5.65
27	Imports 0 to 1 l	27	285	116	211	43	104	54	813	5.54
28	Total		27,742,427	7,779,143	9,402,541	3,258,430	6,585,917	5,247,866	60,016,324	4.20

Schedule 1.2

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
VARIABLE RATE DESIGN SUMMARY

Line #	(a) Forecast Group	(b) ID	(c) Total Class Revenue Requirement	Cal 2006 Volume	(d) Variable Rate (¢/cont)	(e) Revenue @ Variable Rates	(f) Revenue Surplus / Shortfall	(g) Manufacturer
1	Pop Cans	1	$15,724,916	394,070,893	3.99	$15,724,916	$0	ABCRC
2	Beer Cans	2	$12,559,797	315,810,552	3.98	$12,559,797	$0	BDL
3	PET 0 to 1 l	3	$11,104,645	247,387,848	4.49	$11,104,645	$0	ABCRC
4	Beer Bottles	4	$5,796,583	150,299,592	3.86	$5,796,583	$0	BDL
5	Glass 0 to 1 l	5	$4,358,943	99,552,664	4.38	$4,358,943	$0	ABCRC
6	Tetra 0 to 1 l	6	$2,977,372	73,819,357	4.03	$2,977,372	$0	ABCRC
7	PET Over 1 l	7	$2,935,783	54,360,485	5.40	$2,935,783	$0	ABCRC
8	Import Beer	8	$2,469,272	53,659,131	4.60	$2,469,272	$0	ABCRC
9	Glass Over 1 l	9	$470,221	7,565,146	6.22	$470,221	$0	ABCRC
10	Gable 0 to 1 l	10	$412,522	7,535,924	5.47	$412,522	$0	ABCRC
11	Drink Pouch	11	$209,249	5,095,994	4.11	$209,249	$0	ABCRC
12	HDPE Over 1 l	12	$261,271	3,379,532	7.73	$261,271	$0	ABCRC
13	Polycups	13	$115,887	2,965,421	3.91	$115,887	$0	ABCRC
14	Bi Metal 0 to 1 l	14	$150,880	3,393,950	4.45	$150,880	$0	ABCRC
15	HDPE 0 to 1 l	15	$73,707	1,662,362	4.43	$73,707	$0	ABCRC
16	Bi Metal Over 1 l	16	$46,162	822,270	5.61	$46,162	$0	ABCRC
17	Gable Over 1 l	17	$34,906	627,420	5.56	$34,906	$0	ABCRC
18	Bag in Box	18	$27,408	244,536	11.21	$27,408	$0	ABCRC
19	Tetra Over 1 l	19	$1,792	35,833	5.00	$1,792	$0	ABCRC
20	PVC Over 1 l	20	$10,744	69,688	15.42	$10,744	$0	ABCRC
21	Polypropylene	21	$15,207	283,290	5.37	$15,207	$0	ABCRC
22	PVC 0 to 1 l	22	$2,007	43,996	4.56	$2,007	$0	ABCRC
23	Other	23	$60	566	10.52	$60	$0	ABCRC
24	Sleemans	24	$252,220	6,180,960	4.08	$252,220	$0	BDL
25	Import Beer PET 0 to 1 l	25	$199	4,752	4.19	$199	$0	BDL
26	Import Beer (Bi-Metal)	26	$3,758	66,472	5.65	$3,758	$0	BDL
27	Imports 0 to 1 l	27	$813	14,664	5.54	$813	$0	BDL
28	Total		$60,016,324	1,428,953,298		$60,016,324	$0	
29	ABCRC		$41,402,955		69.0%	$41,402,955	69.0%	
30	BDL		$18,613,369		31.0%	$18,613,369	31.0%	
			$60,016,324		100.0%	$60,016,324	100.0%	

Schedule 1.2-a

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
VARIABLE RATE DESIGN SUMMARY - ADJUSTMENTS

Line #	(a) Forecast Group	(b) ID	(c) Total Class Revenue Requirement	(d) Variable Rate (¢/cont)	(e) Revenue @ Variable Rates	(f) Revenue Surplus / Shortfall	(g) Modified Variable Rate (¢/cont)	(h) Revenue @ Modified Variable Rates	(i) Revenue Surplus / Shortfall	Manufacturer
1	Pop Cans	1	$15,724,916	3.99	$15,724,916	$0	3.96	$15,614,058	-$110,858	ABCRC
2	Beer Cans	2	$12,559,797	3.98	$12,559,797	$0	3.95	$12,470,954	-$88,842	BDL
3	PET 0 to 1 l	3	$11,104,645	4.49	$11,104,645	$0	4.46	$11,035,051	-$69,594	ABCRC
4	Beer Bottles	4	$5,796,583	3.86	$5,796,583	$0	3.83	$5,754,302	-$42,282	BDL
5	Glass 0 to 1 l	5	$4,358,943	4.38	$4,358,943	$0	4.35	$4,330,937	-$28,006	ABCRC
6	Tetra 0 to 1 l	6	$2,977,372	4.03	$2,977,372	$0	4.01	$2,956,605	-$20,767	ABCRC
7	PET Over 1 l	7	$2,935,783	5.40	$2,935,783	$0	5.37	$2,920,491	-$15,292	ABCRC
8	Import Beer	8	$2,469,272	4.60	$2,469,272	$0	4.57	$2,454,177	-$15,095	ABCRC
9	Glass Over 1 l	9	$470,221	6.22	$470,221	$0	6.00	$453,909	-$16,312	ABCRC
10	Gable 0 to 1 l	10	$412,522	5.47	$412,522	$0	6.00	$452,155	$39,633	ABCRC
11	Drink Pouch	11	$209,249	4.11	$209,249	$0	6.00	$305,760	$96,510	ABCRC
12	HDPE Over 1 l	12	$261,271	7.73	$261,271	$0	8.00	$270,363	$9,092	ABCRC
13	Polycups	13	$115,887	3.91	$115,887	$0	6.00	$177,925	$62,038	ABCRC
14	Bi Metal 0 to 1 l	14	$150,880	4.45	$150,880	$0	6.00	$203,637	$52,757	ABCRC
15	HDPE 0 to 1 l	15	$73,707	4.43	$73,707	$0	6.00	$99,742	$26,035	ABCRC
16	Bi Metal Over 1 l	16	$46,162	5.61	$46,162	$0	6.00	$49,336	$3,174	ABCRC
17	Gable Over 1 l	17	$34,906	5.56	$34,906	$0	6.00	$37,645	$2,739	ABCRC
18	Bag in Box	18	$27,408	11.21	$27,408	$0	10.00	$24,454	-$2,954	ABCRC
19	Tetra Over 1 l	19	$1,792	5.00	$1,792	$0	6.00	$2,150	$358	ABCRC
20	PVC Over 1 l	20	$10,744	15.42	$10,744	$0	10.00	$6,969	-$3,775	ABCRC
21	Polypropylene	21	$15,207	5.37	$15,207	$0	6.00	$16,997	$1,791	ABCRC
22	PVC 0 to 1 l	22	$2,007	4.56	$2,007	$0	6.00	$2,640	$632	ABCRC
23	Other	23	$60	10.52	$60	$0	10.00	$57	-$3	ABCRC
24	Sleemans	24	$252,220	4.08	$252,220	$0	6.00	$370,858	$118,638	BDL
25	Import Beer PET 0 to 1 l	25	$199	4.19	$199	$0	6.00	$285	$86	BDL
26	Import Beer (Bi-Metal)	26	$3,758	5.65	$3,758	$0	6.00	$3,988	$231	BDL
27	Imports 0 to 1 l	27	$813	5.54	$813	$0	6.00	$880	$67	BDL
28	Total		$60,016,324		$60,016,324	$0		$60,016,324	$0	
29	Rate Range			Min	6.00 ¢/cont.		Max	10.00 ¢/cont.	Rate Range Impact	$390,736
30	ABCRC		$41,402,955	69.0%	$41,402,955	69.0%		$41,415,057	$12,102	
31	BDL		$18,613,369	31.0%	$18,613,369	31.0%		$18,601,267	-$12,102	
			$60,016,324	100.0%	$60,016,324	100.0%		$60,016,324	$0	

Schedule 1.3

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
VARIABLE + FIXED FEE RATE DESIGN

Line #	(a) Forecast Group	(b) ID	(c) 100% Modified Variable Rate (¢/cont)	(d) Volume Allocator	(e) Fixed Fee ($x/month/depot)	(f) BCMB Variable Rate (¢/cont)	(g) Depot Variable Rate (¢/cont)	(h) System Cost (100% Variable)
1	Pop Cans	1	3.96	27.57759%	$1,580,196	0.40	3.56	$15,614,058
2	Beer Cans	2	3.95	22.10083%	$1,266,378	0.40	3.55	$12,470,954
3	PET 0 to 1 l	3	4.46	17.31252%	$992,007	0.40	4.06	$11,035,051
4	Beer Bottles	4	3.83	10.51816%	$602,691	0.40	3.43	$5,754,302
5	Glass 0 to 1 l	5	4.35	6.96682%	$399,199	0.40	3.95	$4,330,937
6	Tetra 0 to 1 l	6	4.01	5.16597%	$296,010	0.40	3.61	$2,956,605
7	PET Over 1 l	7	5.37	3.80422%	$217,982	0.40	4.97	$2,920,491
8	Import Beer	8	4.57	3.75514%	$215,169	0.40	4.17	$2,454,177
9	Glass Over 1 l	9	6.00	0.52942%	$30,336	0.40	5.60	$453,909
10	Gable 0 to 1 l	10	6.00	0.52737%	$30,219	0.40	5.60	$452,155
11	Drink Pouch	11	6.00	0.35662%	$20,435	0.40	5.60	$305,760
12	HDPE Over 1 l	12	8.00	0.23650%	$13,552	0.40	7.60	$270,363
13	Polycups	13	6.00	0.20752%	$11,891	0.40	5.60	$177,925
14	Bi Metal 0 to 1 l	14	6.00	0.23751%	$13,609	0.40	5.60	$203,637
15	HDPE 0 to 1 l	15	6.00	0.11633%	$6,666	0.40	5.60	$99,742
16	Bi Metal Over 1 l	16	6.00	0.05754%	$3,297	0.40	5.60	$49,336
17	Gable Over 1 l	17	6.00	0.04391%	$2,516	0.40	5.60	$37,645
18	Bag in Box	18	10.00	0.01711%	$981	0.40	9.60	$24,454
19	Tetra Over 1 l	19	6.00	0.00251%	$144	0.40	5.60	$2,150
20	PVC Over 1 l	20	10.00	0.00488%	$279	0.40	9.60	$6,969
21	Polypropylene	21	6.00	0.01983%	$1,136	0.40	5.60	$16,997
22	PVC 0 to 1 l	22	6.00	0.00308%	$176	0.40	5.60	$2,640
23	Other	23	10.00	0.00004%	$2	0.40	9.60	$57
24	Sleemans	24	6.00	0.43255%	$24,785	0.40	5.60	$370,858
25	Import Beer PET 0 to 1 l	25	6.00	0.00033%	$19	0.40	5.60	$285
26	Import Beer (Bi-Metal)	26	6.00	0.00465%	$267	0.40	5.60	$3,988
27	Imports 0 to 1 l	27	6.00	0.00103%	$59	0.40	5.60	$880
28	**Total**			**100.00%**	$5,730,000			$60,016,324

Schedule 1.4

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
GRADUATED FIXED FEE

Line #		(a) Depot Size Range (containers/year)	(b)	(c) # Depots Cal 2005 Study System	(d) # Depots Cal 2006 Total System	(e) Fixed Fee ($/ month/ depot)	(f) Study System Fixed Fees ($/year)	(g) Total System Fixed Fees ($/year)
1	1	-	500,000	6	14	$1,000	$72,000	$168,000
2	2	500,000	1,000,000	17	21	$1,500	$306,000	$378,000
3	3	1,000,000	2,000,000	29	36	$2,000	$696,000	$864,000
4	4	2,000,000	3,000,000	21	27	$2,500	$630,000	$810,000
5	5	3,000,000	4,000,000	10	16	$2,500	$300,000	$480,000
6	6	4,000,000	5,000,000	7	10	$2,500	$210,000	$300,000
7	7	5,000,000	10,000,000	27	36	$2,500	$810,000	$1,080,000
8	8	10,000,000	15,000,000	21	27	$2,500	$630,000	$810,000
9	9	15,000,000	20,000,000	17	17	$2,500	$510,000	$510,000
10	10	20,000,000	40,000,000	10	11	$2,500	$300,000	$330,000
11		**Total**		165	215		$4,464,000	$5,730,000

Schedule 2.0

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
DIRECT LABOUR

Line #	(a) Forecast Group	(b) Category	(c) Volume	(d) Direct Labour Hours	(e) Loaded Hourly Rate ($/hr)	(f) Total Direct Labour Cost ($)	(g) % of Total	(h) ¢/ cont.
1	Pop Cans	VAR 1	394,070,893	532,813	$14.36	$7,650,693	27.5776%	1.94
2	Beer Cans	VAR 1	315,810,552	426,999	$14.36	$6,131,307	22.1008%	1.94
3	PET 0 to 1 l	VAR 1	247,387,848	334,487	$14.36	$4,802,914	17.3125%	1.94
4	Beer Bottles	VAR 1	150,299,592	203,216	$14.36	$2,917,993	10.5182%	1.94
5	Glass 0 to 1 l	VAR 1	99,552,664	134,603	$14.36	$1,932,766	6.9668%	1.94
6	Tetra 0 to 1 l	VAR 1	73,819,357	99,809	$14.36	$1,433,167	5.1660%	1.94
7	PET Over 1 l	VAR 1	54,360,485	73,499	$14.36	$1,055,382	3.8042%	1.94
8	Import Beer	VAR 1	53,659,131	72,551	$14.36	$1,041,766	3.7551%	1.94
9	Glass Over 1 l	VAR 1	7,565,146	10,229	$14.36	$146,874	0.5294%	1.94
10	Gable 0 to 1 l	VAR 1	7,535,924	10,189	$14.36	$146,306	0.5274%	1.94
11	Drink Pouch	VAR 1	5,095,994	6,890	$14.36	$98,936	0.3566%	1.94
12	HDPE Over 1 l	VAR 1	3,379,532	4,569	$14.36	$65,612	0.2365%	1.94
13	Polycups	VAR 1	2,965,421	4,009	$14.36	$57,572	0.2075%	1.94
14	Bi Metal 0 to 1 l	VAR 1	3,393,950	4,589	$14.36	$65,892	0.2375%	1.94
15	HDPE 0 to 1 l	VAR 1	1,662,362	2,248	$14.36	$32,274	0.1163%	1.94
16	Bi Metal Over 1 l	VAR 1	822,270	1,112	$14.36	$15,964	0.0575%	1.94
17	Gable Over 1 l	VAR 1	627,420	848	$14.36	$12,181	0.0439%	1.94
18	Bag in Box	VAR 1	244,536	331	$14.36	$4,748	0.0171%	1.94
19	Tetra Over 1 l	VAR 1	35,833	48	$14.36	$696	0.0025%	1.94
20	PVC Over 1 l	VAR 1	69,688	94	$14.36	$1,353	0.0049%	1.94
21	Polypropylene	VAR 1	283,290	383	$14.36	$5,500	0.0198%	1.94
22	PVC 0 to 1 l	VAR 1	43,996	59	$14.36	$854	0.0031%	1.94
23	Other	VAR 1	566	1	$14.36	$11	0.0000%	1.94
24	Sleemans	VAR 1	6,180,960	8,357	$14.36	$120,000	0.4326%	1.94
25	Import Beer PET 0 to 1 l	VAR 1	4,752	6	$14.36	$92	0.0003%	1.94
26	Import Beer (Bi-Metal)	VAR 1	66,472	90	$14.36	$1,291	0.0047%	1.94
27	Imports 0 to 1 l	VAR 1	14,664	20	$14.36	$285	0.0010%	1.94
28	**Total**		1,428,953,298	1,932,051		$27,742,427		

29	Cal 2006 Total System Direct Labour Costs	$27,742,427
30	Cal 2006 Total System Direct Labour Hours	1,932,051
31	**Cal 2006 Total System Direct Labour Rate**	$14.36

	Variable	Coefficient
32	VAR 1	4.867466207
33	VAR 2	4.867466207

Schedule 3.1

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
OVERHEAD LABOUR

Line #	(a)	(b) Classification Factors	(c) Cal 2005 Total System Costs ($)
1	Management Related Costs	50%	$3,889,571
2	Direct Labour Related Costs	50%	$3,889,571
3	Cal 2005 Total System Overhead Labour	100%	$7,779,143

Schedule 3.0

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
OVERHEAD LABOUR

Line #	(a) Forecast Group	(b) Direct Labour Allocator	(c) Direct Labour Costs ($)	(d) Peak Month Volume Allocator	(e) Peak Month Costs ($)	(f) Total Cost ($)	(g) % of Total	(h) ¢/cont.
1	Pop Cans	27.5776%	$1,072,650	27.64071%	$1,075,105	$2,147,755	27.60915%	0.55
2	Beer Cans	22.1008%	$859,628	21.80299%	$848,043	$1,707,670	21.95191%	0.54
3	PET 0 to 1 l	17.3125%	$673,383	19.52729%	$759,528	$1,432,911	18.41991%	0.58
4	Beer Bottles	10.5182%	$409,111	9.19515%	$357,652	$766,763	9.85666%	0.51
5	Glass 0 to 1 l	6.9668%	$270,980	6.99554%	$272,097	$543,076	6.98118%	0.55
6	Tetra 0 to 1 l	5.1660%	$200,934	4.53850%	$176,528	$377,462	4.85224%	0.51
7	PET Over 1 l	3.8042%	$147,968	3.57185%	$138,929	$286,897	3.68803%	0.53
8	Import Beer	3.7551%	$146,059	4.09292%	$159,197	$305,256	3.92403%	0.57
9	Glass Over 1 l	0.5294%	$20,592	0.46558%	$18,109	$38,701	0.49750%	0.51
10	Gable 0 to 1 l	0.5274%	$20,513	0.49558%	$19,276	$39,788	0.51147%	0.53
11	Drink Pouch	0.3566%	$13,871	0.33505%	$13,032	$26,903	0.34584%	0.53
12	HDPE Over 1 l	0.2365%	$9,199	0.23676%	$9,209	$18,408	0.23663%	0.54
13	Polycups	0.2075%	$8,072	0.20633%	$8,025	$16,097	0.20693%	0.54
14	Bi Metal 0 to 1 l	0.2375%	$9,238	0.23269%	$9,051	$18,289	0.23510%	0.54
15	HDPE 0 to 1 l	0.1163%	$4,525	0.11155%	$4,339	$8,864	0.11394%	0.53
16	Bi Metal Over 1 l	0.0575%	$2,238	0.04798%	$1,866	$4,104	0.05276%	0.50
17	Gable Over 1 l	0.0439%	$1,708	0.03706%	$1,442	$3,149	0.04049%	0.50
18	Bag in Box	0.0171%	$666	0.01489%	$579	$1,245	0.01600%	0.51
19	Tetra Over 1 l	0.0025%	$98	0.00176%	$69	$166	0.00213%	0.46
20	PVC Over 1 l	0.0049%	$190	0.00524%	$204	$393	0.00506%	0.56
21	Polypropylene	0.0198%	$771	0.01647%	$641	$1,412	0.01815%	0.50
22	PVC 0 to 1 l	0.0031%	$120	0.00125%	$48	$168	0.00216%	0.38
23	Other	0.0000%	$2	0.00005%	$2	$3	0.00004%	0.60
24	Sleemans	0.4326%	$16,824	0.41868%	$16,285	$33,109	0.42562%	0.54
25	Import Beer PET 0 to 1 l	0.0003%	$13	0.00014%	$6	$19	0.00024%	0.39
26	Import Beer (Bi-Metal)	0.0047%	$181	0.00604%	$235	$416	0.00535%	0.63
27	Imports 0 to 1 l	0.0010%	$40	0.00196%	$76	$116	0.00149%	0.79
28	**Total**	**100.0%**	**$3,889,571**	**100.0%**	**$3,889,571**	**$7,779,143**	**100.0%**	

Schedule 4.1

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
BUILDINGS

Line #	(a)	(b)	(c)	(d)	(e)	(f)	(g)
				Classification Factors		Classification ($)	
		% Reported	Costs ($)	Volume	Peak Month Pallets	Volume	Peak Month Pallets
1	Office	6.2%	$579,860	100%		$579,860	$0
2	Customer Interface	14.0%	$1,314,342	100%		$1,314,342	$0
3	Loading	9.4%	$887,439		100%	$0	$887,439
4	Sorting	26.6%	$2,501,479	50%	50%	$1,250,739	$1,250,739
5	Storage	43.8%	$4,119,420		100%	$0	$4,119,420
6		100.00%	$9,402,541			$3,144,942	$6,257,598

Schedule 4.0

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
BUILDINGS

Line #	(a) Forecast Group	(b) Volume Allocator	(c) Volume Costs ($)	(d) Peak Month Pallet Allocator	(e) Peak Month Pallet Cost ($)	(f) Total Cost ($)	(g) % of Total	(h) ¢/cont.
1	Pop Cans	27.57759%	$867,299	16.39950%	$1,026,215	$1,893,514	20.13832%	0.48
2	Beer Cans	22.10083%	$695,058	12.91850%	$808,388	$1,503,446	15.98979%	0.48
3	PET 0 to 1 l	17.31252%	$544,469	24.88444%	$1,557,168	$2,101,637	22.35180%	0.85
4	Beer Bottles	10.51816%	$330,790	4.89148%	$306,089	$636,879	6.77348%	0.42
5	Glass 0 to 1 l	6.96682%	$219,103	9.32604%	$583,586	$802,689	8.53693%	0.81
6	Tetra 0 to 1 l	5.16597%	$162,467	4.10571%	$256,919	$419,386	4.46034%	0.57
7	PET Over 1 l	3.80422%	$119,640	12.72416%	$796,227	$915,867	9.74064%	1.68
8	Import Beer	3.75514%	$118,097	6.35213%	$397,491	$515,588	5.48349%	0.96
9	Glass Over 1 l	0.52942%	$16,650	2.60641%	$163,098	$179,748	1.91170%	2.38
10	Gable 0 to 1 l	0.52737%	$16,586	1.83665%	$114,930	$131,516	1.39872%	1.75
11	Drink Pouch	0.35662%	$11,216	0.31262%	$19,562	$30,778	0.32734%	0.60
12	HDPE Over 1 l	0.23650%	$7,438	1.83994%	$115,136	$122,574	1.30363%	3.63
13	Polycups	0.20752%	$6,527	0.09235%	$5,779	$12,305	0.13087%	0.41
14	Bi Metal 0 to 1 l	0.23751%	$7,470	0.35450%	$22,183	$29,653	0.31537%	0.87
15	HDPE 0 to 1 l	0.11633%	$3,659	0.17299%	$10,825	$14,484	0.15404%	0.87
16	Bi Metal Over 1 l	0.05754%	$1,810	0.21883%	$13,694	$15,503	0.16489%	1.89
17	Gable Over 1 l	0.04391%	$1,381	0.16192%	$10,132	$11,513	0.12245%	1.83
18	Bag in Box	0.01711%	$538	0.24542%	$15,357	$15,896	0.16906%	6.50
19	Tetra Over 1 l	0.00251%	$79	0.00687%	$430	$509	0.00541%	1.42
20	PVC Over 1 l	0.00488%	$153	0.10948%	$6,851	$7,004	0.07449%	10.05
21	Polypropylene	0.01983%	$623	0.06663%	$4,170	$4,793	0.05098%	1.69
22	PVC 0 to 1 l	0.00308%	$97	0.00622%	$389	$486	0.00517%	1.10
23	Other	0.00004%	$1	0.00055%	$34	$35	0.00038%	6.25
24	Sleemans	0.43255%	$13,603	0.34670%	$21,695	$35,299	0.37542%	0.57
25	Import Beer PET 0 to 1 l	0.00033%	$10	0.00045%	$28	$39	0.00041%	0.82
26	Import Beer (Bi-Metal)	0.00465%	$146	0.01666%	$1,042	$1,189	0.01264%	1.79
27	Imports 0 to 1 l	0.00103%	$32	0.00285%	$179	$211	0.00224%	1.44
28	**Total**	**100.00%**	**$3,144,942**	**100.0%**	**$6,257,598**	**$9,402,541**	**100.00%**	

Schedule 5.1

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
EQUIPMENT

Line #	(a) Equipment Cost Class	(b) Costs ($)	(c) Classification Factors: Buildings	(d) Classification Factors: Peak Month Volume	(e) Classification Factors: Total Pallets	(e) Classification Factors: Total Volume	(f) Classification ($): Buildings	(g) Classification ($): Peak Month Volume	(h) Classification ($): Total Pallets	(h) Classification ($): Total Volume
1	Sorting / Loading / Cardboard	814,373			100%		-	-	814,373	-
2	Building	64,200	100%				64,200	-	-	-
3	Office	637,861		100%			-	637,861	-	-
4	Collection	1,741,996				100%	-	-	-	1,741,996
5		3,258,430					64,200	637,861	814,373	1,741,996

Schedule 5.0

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
EQUIPMENT

Line #	(a) Forecast Group	(b) Buildings Allocator	(c) Buildings Costs ($)	(d) Peak Month Volume Allocator	(e) Peak Month Cost ($)	(f) Total Pallet Allocator	(g) Total Pallet Cost ($)	(f) Total Volume Allocator	(g) Total Volume Cost ($)	(h) Total Cost ($)	(i) % of Total	(j) ¢/cont.
1	Pop Cans	20.13832%	$12,929	27.64071%	$176,309	16.44618%	$133,933	27.57759%	$480,401	$803,572	24.66132%	0.20
2	Beer Cans	15.98979%	$10,265	21.80299%	$139,073	13.16198%	$107,188	22.10083%	$384,996	$641,521	19.68805%	0.20
3	PET 0 to 1 l	22.35180%	$14,350	19.52729%	$124,557	22.17386%	$180,578	17.31252%	$301,583	$621,068	19.06035%	0.25
4	Beer Bottles	6.77348%	$4,349	9.19515%	$58,652	5.62041%	$45,771	10.51816%	$183,226	$291,998	8.96131%	0.19
5	Glass 0 to 1 l	8.53693%	$5,481	6.99554%	$44,622	9.32378%	$75,930	6.96682%	$121,362	$247,395	7.59245%	0.25
6	Tetra 0 to 1 l	4.46034%	$2,864	4.53850%	$28,949	4.70353%	$38,304	5.16597%	$89,991	$160,108	4.91366%	0.22
7	PET Over 1 l	9.74064%	$6,253	3.57185%	$22,783	13.62191%	$110,933	3.80422%	$66,269	$206,239	6.32941%	0.38
8	Import Beer	5.48349%	$3,520	4.09292%	$26,107	5.86062%	$47,727	3.75514%	$65,414	$142,769	4.38153%	0.27
9	Glass Over 1 l	1.91170%	$1,227	0.46558%	$2,970	2.97271%	$24,209	0.52942%	$9,222	$37,628	1.15480%	0.50
10	Gable 0 to 1 l	1.39872%	$898	0.49558%	$3,161	1.97306%	$16,068	0.52737%	$9,187	$29,314	0.89964%	0.39
11	Drink Pouch	0.32734%	$210	0.33505%	$2,137	0.33435%	$2,723	0.35662%	$6,212	$11,283	0.34626%	0.22
12	HDPE Over 1 l	1.30363%	$837	0.23676%	$1,510	1.84508%	$15,026	0.23650%	$4,120	$21,493	0.65961%	0.64
13	Polycups	0.13087%	$84	0.20633%	$1,316	0.09225%	$751	0.20752%	$3,615	$5,766	0.17697%	0.19
14	Bi Metal 0 to 1 l	0.31537%	$202	0.23269%	$1,484	0.35563%	$2,896	0.23751%	$4,137	$8,720	0.26762%	0.26
15	HDPE 0 to 1 l	0.15404%	$99	0.11155%	$712	0.17876%	$1,456	0.11633%	$2,027	$4,293	0.13174%	0.26
16	Bi Metal Over 1 l	0.16489%	$106	0.04798%	$306	0.26517%	$2,159	0.05754%	$1,002	$3,574	0.10968%	0.43
17	Gable Over 1 l	0.12245%	$79	0.03706%	$236	0.20016%	$1,630	0.04391%	$765	$2,710	0.08317%	0.43
18	Bag in Box	0.16906%	$109	0.01489%	$95	0.28583%	$2,328	0.01711%	$298	$2,829	0.08683%	1.16
19	Tetra Over 1 l	0.00541%	$3	0.00176%	$11	0.00948%	$77	0.00251%	$44	$136	0.00416%	0.38
20	PVC Over 1 l	0.07449%	$48	0.00524%	$33	0.11050%	$900	0.00488%	$85	$1,066	0.03272%	1.53
21	Polypropylene	0.05098%	$33	0.01647%	$105	0.07757%	$632	0.01983%	$345	$1,115	0.03421%	0.39
22	PVC 0 to 1 l	0.00517%	$3	0.00125%	$8	0.01469%	$120	0.00308%	$54	$185	0.00566%	0.42
23	Other	0.00038%	$0	0.00005%	$0	0.00023%	$2	0.00004%	$1	$3	0.00010%	0.56
24	Sleemans	0.37542%	$241	0.41868%	$2,671	0.35757%	$2,912	0.43255%	$7,535	$13,359	0.40997%	0.22
25	Import Beer PET 0 to 1 l	0.00041%	$0	0.00014%	$1	0.00106%	$9	0.00033%	$6	$16	0.00048%	0.33
26	Import Beer (Bi-Metal)	0.01264%	$8	0.00604%	$39	0.01226%	$100	0.00465%	$81	$227	0.00698%	0.34
27	Imports 0 to 1 l	0.00224%	$1	0.00196%	$13	0.00135%	$11	0.00103%	$18	$43	0.00131%	0.29
28	**Total**	**100.0%**	**$64,200**	**100.0%**	**$637,861**	**100.0%**	**$814,373**	**100.0%**	**$1,741,996**	**$3,258,430**	**100.0%**	

Schedule 6.1

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
OVERHEAD

Line #	(a) Cost Classification	(b) 2005 YE As Adjusted	(c) Cal 2006 Total Costs Alloc.	(d) Classification Factors: Buildings	(e) Classification Factors: Peak Month Volume	(f) Classification Factors: Total Volume	(g) Classification ($): Buildings	(h) Classification ($): Peak Month Volume	(i) Classification ($): Total Volume
1	Business	$2,552,447	$3,291,044		100%		$0	$3,291,044	$0
2	Building	$377,065	$486,176	100%			$486,176	$0	$0
3	Volume	$2,178,351	$2,808,697			100%	$0	$0	$2,808,697
4		**$5,107,864**	**$6,585,917**				**$486,176**	**$3,291,044**	**$2,808,697**

Schedule 6.0

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
OVERHEAD

Line #	(a) Forecast Group	(b) Peak Volume Allocator	(c) Peak Month Volume Cost ($) Business	(d) Building Allocator	(e) Building Costs ($) Building	(f) Total Volume Allocator	(g) Volume Costs ($) Volume	(h) Total Cost ($)	(i) % of Total	(j) ¢/ cont.
1	Pop Cans	27.64071%	$909,668	20.13832%	$97,908	27.57759%	$774,571	$1,782,147	27.05996%	0.45
2	Beer Cans	21.80299%	$717,546	15.98979%	$77,739	22.10083%	$620,745	$1,416,030	21.50087%	0.45
3	PET 0 to 1 l	19.52729%	$642,652	22.35180%	$108,669	17.31252%	$486,256	$1,237,577	18.79126%	0.50
4	Beer Bottles	9.19515%	$302,617	6.77348%	$32,931	10.51816%	$295,423	$630,971	9.58061%	0.42
5	Glass 0 to 1 l	6.99554%	$230,226	8.53693%	$41,505	6.96682%	$195,677	$467,408	7.09708%	0.47
6	Tetra 0 to 1 l	4.53850%	$149,364	4.46034%	$21,685	5.16597%	$145,097	$316,146	4.80033%	0.43
7	PET Over 1 l	3.57185%	$117,551	9.74064%	$47,357	3.80422%	$106,849	$271,757	4.12633%	0.50
8	Import Beer	4.09292%	$134,700	5.48349%	$26,659	3.75514%	$105,470	$266,830	4.05152%	0.50
9	Glass Over 1 l	0.46558%	$15,322	1.91170%	$9,294	0.52942%	$14,870	$39,486	0.59956%	0.52
10	Gable 0 to 1 l	0.49558%	$16,310	1.39872%	$6,800	0.52737%	$14,812	$37,922	0.57581%	0.50
11	Drink Pouch	0.33505%	$11,027	0.32734%	$1,591	0.35662%	$10,016	$22,634	0.34368%	0.44
12	HDPE Over 1 l	0.23676%	$7,792	1.30363%	$6,338	0.23650%	$6,643	$20,772	0.31541%	0.61
13	Polycups	0.20633%	$6,790	0.13087%	$636	0.20752%	$5,829	$13,255	0.20127%	0.45
14	Bi Metal 0 to 1 l	0.23269%	$7,658	0.31537%	$1,533	0.23751%	$6,671	$15,862	0.24085%	0.47
15	HDPE 0 to 1 l	0.11155%	$3,671	0.15404%	$749	0.11633%	$3,267	$7,688	0.11673%	0.46
16	Bi Metal Over 1 l	0.04798%	$1,579	0.16489%	$802	0.05754%	$1,616	$3,997	0.06069%	0.49
17	Gable Over 1 l	0.03706%	$1,220	0.12245%	$595	0.04391%	$1,233	$3,048	0.04629%	0.49
18	Bag in Box	0.01489%	$490	0.16906%	$822	0.01711%	$481	$1,793	0.02722%	0.73
19	Tetra Over 1 l	0.00176%	$58	0.00541%	$26	0.00251%	$70	$155	0.00235%	0.43
20	PVC Over 1 l	0.00524%	$172	0.07449%	$362	0.00488%	$137	$672	0.01020%	0.96
21	Polypropylene	0.01647%	$542	0.05098%	$248	0.01983%	$557	$1,347	0.02045%	0.48
22	PVC 0 to 1 l	0.00125%	$41	0.00517%	$25	0.00308%	$86	$153	0.00232%	0.35
23	Other	0.00005%	$2	0.00038%	$2	0.00004%	$1	$5	0.00007%	0.80
24	Sleemans	0.41868%	$13,779	0.37542%	$1,825	0.43255%	$12,149	$27,753	0.42140%	0.45
25	Import Beer PET 0 to 1 l	0.00014%	$5	0.00041%	$2	0.00033%	$9	$16	0.00024%	0.34
26	Import Beer (Bi-Metal)	0.00604%	$199	0.01264%	$61	0.00465%	$131	$391	0.00593%	0.59
27	Imports 0 to 1 l	0.00196%	$65	0.00224%	$11	0.00103%	$29	$104	0.00158%	0.71
28	Total	100.0%	$3,291,044	100.0%	$486,176	100.0%	$2,808,697	$6,585,917	100.0%	

Schedule 7.1

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
SYSTEM RETURN & INCOME TAX

Line #	(a)	(b) Return Calculation ($)
1	Return	$3,279,253
2	Income Tax	$2,981,108
3	Less: Miscellaneous Revenue	-$1,012,495
4	System Return & Income Tax	$5,247,866

Schedule 7.0

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
RETURN & INCOME TAX

Line #	(a) Forecast Group	(b) Volume Allocator	(c) Volume Costs ($)	(d) ¢/cont
1	Pop Cans	27.57759%	$1,447,235	0.37
2	Beer Cans	22.10083%	$1,159,822	0.37
3	PET 0 to 1 l	17.31252%	$908,538	0.37
4	Beer Bottles	10.51816%	$551,979	0.37
5	Glass 0 to 1 l	6.96682%	$365,610	0.37
6	Tetra 0 to 1 l	5.16597%	$271,103	0.37
7	PET Over 1 l	3.80422%	$199,640	0.37
8	Import Beer	3.75514%	$197,064	0.37
9	Glass Over 1 l	0.52942%	$27,783	0.37
10	Gable 0 to 1 l	0.52737%	$27,676	0.37
11	Drink Pouch	0.35662%	$18,715	0.37
12	HDPE Over 1 l	0.23650%	$12,411	0.37
13	Polycups	0.20752%	$10,891	0.37
14	Bi Metal 0 to 1 l	0.23751%	$12,464	0.37
15	HDPE 0 to 1 l	0.11633%	$6,105	0.37
16	Bi Metal Over 1 l	0.05754%	$3,020	0.37
17	Gable Over 1 l	0.04391%	$2,304	0.37
18	Bag in Box	0.01711%	$898	0.37
19	Tetra Over 1 l	0.00251%	$132	0.37
20	PVC Over 1 l	0.00488%	$256	0.37
21	Polypropylene	0.01983%	$1,040	0.37
22	PVC 0 to 1 l	0.00308%	$162	0.37
23	Other	0.00004%	$2	0.37
24	Sleemans	0.43255%	$22,700	0.37
25	Import Beer PET 0 to 1 l	0.00033%	$17	0.37
26	Import Beer (Bi-Metal)	0.00465%	$244	0.37
27	Imports 0 to 1 l	0.00103%	$54	0.37
28	Total	100.0%	$5,247,866	

Schedule 8.0

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV 1
ALLOCATORS

Line #	(a) Forecast Group	(b) ID	(e) Cal 2006 Total Volume	(d) Cal 2006 Total Container Volume %	(e) Cal 2006 Total Container Pallets	(f) Total Container Pallets Allocator %	(g) July 2006 Peak Month Container Volume	(h) July 2006 Peak Month Container Volume Allocator %	(i) July 2006 Total Peak Month Pallets	(j) July 2006 Total Peak Month Pallets Allocator %
1	Pop Cans	1	394,070,893	27.57759%	219,312	16.4462%	41,248,888	27.64071%	22,956	16.39950%
2	Beer Cans	2	315,810,552	22.10083%	175,517	13.1620%	32,537,112	21.80299%	18,083	12.91850%
3	PET 0 to 1 l	3	247,387,848	17.31252%	295,692	22.1739%	29,141,039	19.52729%	34,833	24.88444%
4	Beer Bottles	4	150,299,592	10.51816%	74,949	5.6204%	13,722,144	9.19515%	6,847	4.89148%
5	Glass 0 to 1 l	5	99,552,664	6.96682%	124,334	9.3238%	10,439,613	6.99554%	13,054	9.32604%
6	Tetra 0 to 1 l	6	73,819,357	5.16597%	62,722	4.7035%	6,772,911	4.53850%	5,747	4.10571%
7	PET Over 1 l	7	54,360,485	3.80422%	181,650	13.6219%	5,330,350	3.57185%	17,811	12.72416%
8	Import Beer	8	53,659,131	3.75514%	78,152	5.8606%	6,107,959	4.09292%	8,892	6.35213%
9	Glass Over 1 l	9	7,565,146	0.52942%	39,642	2.9727%	694,796	0.46558%	3,648	2.60641%
10	Gable 0 to 1 l	10	7,535,924	0.52737%	26,311	1.9731%	739,559	0.49558%	2,571	1.83665%
11	Drink Pouch	11	5,095,994	0.35662%	4,459	0.3344%	499,997	0.33505%	438	0.31262%
12	HDPE Over 1 l	12	3,379,532	0.23650%	24,604	1.8451%	353,322	0.23676%	2,576	1.83994%
13	Polycups	13	2,965,421	0.20752%	1,230	0.0922%	307,909	0.20633%	129	0.09235%
14	Bi Metal 0 to 1 l	14	3,393,950	0.23751%	4,742	0.3556%	347,245	0.23269%	496	0.35450%
15	HDPE 0 to 1 l	15	1,662,362	0.11633%	2,384	0.1788%	166,476	0.11155%	242	0.17299%
16	Bi Metal Over 1 l	16	822,270	0.05754%	3,536	0.2652%	71,597	0.04798%	306	0.21883%
17	Gable Over 1 l	17	627,420	0.04391%	2,669	0.2002%	55,311	0.03706%	227	0.16192%
18	Bag in Box	18	244,536	0.01711%	3,812	0.2858%	22,224	0.01489%	344	0.24542%
19	Tetra Over 1 l	19	35,833	0.00251%	126	0.0095%	2,629	0.00176%	10	0.00687%
20	PVC Over 1 l	20	69,688	0.00488%	1,474	0.1105%	7,818	0.00524%	153	0.10948%
21	Polypropylene	21	283,290	0.01983%	1,034	0.0776%	24,580	0.01647%	93	0.06663%
22	PVC 0 to 1 l	22	43,996	0.00308%	196	0.0147%	1,860	0.00125%	9	0.00622%
23	Other	23	566	0.00004%	3	0.0002%	72	0.00005%	1	0.00055%
24	Sleemans	24	6,180,960	0.43255%	4,768	0.3576%	624,804	0.41868%	485	0.34670%
25	Import Beer PET 0 to 1 l	25	4,752	0.00033%	14	0.0011%	216	0.00014%	1	0.00045%
26	Import Beer (Bi-Metal)	26	66,472	0.00465%	163	0.0123%	9,012	0.00604%	23	0.01666%
27	Imports 0 to 1 l	27	14,664	0.00103%	18	0.0014%	2,928	0.00196%	4	0.00285%
28			1,428,953,298	100.00%	1,333,516	100.00%	149,232,371	100.00%	139,979	100.00%

APPENDIX II – HISTORICAL RATES AND MANUFACTURERS IMPACT SCHEDULES

Schedule A

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV I
HISTORICAL & PROPOSED HANDLING COMMISSION PERCENT CHANGE

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Product ID	Product Name	Cal 2006 Volume	1993 to November 14, 2001	November 15, 2001 to June 6, 2002	Acton Proposed	June 7, 2002 to Current	DCA Proposed 2005 (Sep 27 2006 Report)	DCA Proposed 2006 (Jan 31 2007 Report)
1	1	Pop Cans 0 - 1 L	394,070,893	3.00	**2.83**	2.95	2.83	3.65	3.96
2	26	Beer Cans	315,810,552	1.83	**2.83**	2.95	2.83	3.69	3.95
3	16	PET 0 - 1 L	247,387,848	4.80	4.80	5.54	**5.54**	4.50	4.46
4	33	Industry Standard Bottles	150,299,592	1.83	**2.83**	5.74	2.83	3.86	3.83
5	41	Glass 0 - 1 Litre *	99,552,664	**5.00**	**5.00**	**7.49**	7.50	**4.69**	4.35
6	21	Tetra Brik 0 - 1 L	73,819,357	3.60	3.60	5.30	**5.30**	3.54	4.01
7	17	PET Plastics Over 1 Litre	54,360,485	5.00	5.00	7.50	**7.50**	5.28	5.37
8	35	Import Beer Bottles	53,659,131	1.83	**2.83**	6.20	2.83	4.58	4.57
9	0	Gable Top Over 1L	7,535,924	5.00	5.00	8.00	**8.00**	5.30	6.00
10	10	Glass Over 1 Litre	7,565,146	5.00	5.00	8.00	**8.00**	6.18	6.00
11	32	Sleemans Bottles	6,180,960	1.83	**2.83**	5.74	2.83	4.24	6.00
12	5	Drink Pouch 0 - 1 L	5,095,994	3.00	3.00	8.00	**8.00**	3.96	6.00
13	12	HDPE Plastics Over 1 Litre	3,379,532	5.00	5.00	8.00	**8.00**	7.30	8.00
14	3	Bi Metal 0 - 1 L	3,393,950	3.05	3.05	8.00	**8.00**	4.46	6.00
15	18	Polycups 0-500ml	2,965,421	3.00	3.00	8.00	**8.00**	4.17	6.00
16	11	HDPE 0 - 1 L	1,662,362	3.14	3.14	8.00	**8.00**	4.19	6.00
17	4	Bi-Metal Cans Over 1 Litre	822,270	5.00	5.00	8.00	**8.00**	5.63	6.00
18	7	Gable Top 0 -1 L	627,420	3.60	3.60	8.00	**8.00**	5.19	6.00
19	37	Polypropylene	283,290	5.00	5.00	8.00	**8.00**	5.56	6.00
20	2	Bag in Box Over 1 L	244,536	5.00	5.00	8.00	**8.00**	10.99	10.00
21	27	Imports Under 1 Litre	14,664	5.00	5.00	8.00	**2.83**	4.58	6.00
22	20	PVC Plastics Over 1 Litre	69,688	5.00	5.00	8.00	**8.00**	11.52	10.00
23	13	Import Beer Cans (Bi-Metal)	66,472	5.00	5.00	8.00	**2.83**	4.54	6.00
24	19	PVC 0 - 1 L	43,996	3.14	3.14	8.00	**8.00**	8.01	6.00
25	34	Tetra Brik Over 1 Litre	35,833	5.00	5.00	8.00	**8.00**	5.51	6.00
26	14	Import Beer PET 0 - 1 Litre	4,752	5.00	5.00	8.00	**2.83**	6.07	6.00
27	15	Liq/Wine Ceramics	566	5.00	5.00	8.00	**8.00**	12.89	10.00
28	8	Glass 0 - 500 ml	-	5.00	5.00	7.18	**7.18**	4.60	4.35
29	9	Glass 501 - 1 Litre	-	5.00	5.00	8.00	**8.00**	4.83	4.35
30	23	Big Rock Bottles	-	1.83	**2.83**	5.74	2.83	3.86	3.83
31	24	Beer Cans - Deposit Only	-	-	-	-	-	-	-
32	25	Unusable ISBs	-	-	-	-	-	-	-
33	30	Molson Obsolete	-	-	-	-	-	-	-
34	31	Over 1 Litre Bottles	-	-	-	-	-	-	-
35	36	Aerosol 0 - 1 Litre	-	5.00	5.00	8.00	8.00	12.89	10.00
36			1,428,953,298		**revised**		**revised**		

	Average Handling Commission per Container	Based on Cal 2002 Data			Based on Cal 2006 Data		
37							
38	ABCRC	3.71	3.67	3.81	4.66	3.69	4.33
39	BDL	1.83	2.83	3.10	2.83	3.75	3.94
		3.09	3.39	3.58	4.05	3.71	4.20

* Weighted Average for Glass 0 to 500 ml & Glass 501 - 1 litre, which were combined into Glass 1 to 1 l Jan 1, 2006

Schedule A-1

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV I
HISTORICAL & PROPOSED HANDLING COMMISSION PERCENT CHANGE

	(a)	(b)	(c)		(d)	(e)	(f)	(g)	(h)	(i)	(j)
				FROM:	**1993 to November 14, 2001**	**November 15, 2001 to June 6, 2002**	**Acton Proposed**	**November 15, 2001 to June 6, 2002**	**June 7, 2002 to Current**	**DCA Proposed 2006 (Nov 27 2006 Report)**	**June 7, 2002 to Current**
	Product ID	**Product Name**	**Cal 2006 Volume**	**TO:**	**November 15, 2001 to June 6, 2002**	**Acton Proposed**	**June 7, 2002 to Current**	**June 7, 2002 to Current**	**DCA Proposed 2006 (Nov 27 2006 Report)**	**DCA Proposed 2006 (Jan 31 2007 Report)**	**DCA Proposed 2006 (Jan 31 2007 Report)**
1	1	Pop Cans 0 - 1 L	394,070,893		**-5.7%**	4.2%	-4.1%	**0.0%**	29.0%	8.6%	**40.0%**
2	26	Beer Cans	315,810,552		**54.6%**	4.2%	-4.1%	**0.0%**	30.4%	7.0%	**39.5%**
3	16	PET 0 - 1 L	247,387,848		**0.0%**	15.4%	0.0%	**15.4%**	-18.8%	-0.9%	**-19.5%**
4	33	Industry Standard Bottles	150,299,592		**54.6%**	102.8%	-50.7%	**0.0%**	36.4%	-0.8%	**35.3%**
5	41	Glass 0 - 1 Litre *	99,552,664		**0.0%**	49.9%	0.1%	**50.0%**	-37.5%	-7.2%	**-42.0%**
6	21	Tetra Brik 0 - 1 L	73,819,357		**0.0%**	47.2%	0.0%	**47.2%**	-33.2%	13.1%	**-24.4%**
7	17	PET Plastics Over 1 Litre	54,360,485		**0.0%**	50.0%	0.0%	**50.0%**	-29.6%	1.8%	**-28.4%**
8	35	Import Beer Bottles	53,659,131		**54.6%**	119.1%	-54.4%	**0.0%**	61.8%	-0.1%	**61.6%**
9	0	Gable Top Over 1L	7,535,924		**0.0%**	60.0%	0.0%	**60.0%**	-33.8%	13.2%	**-25.0%**
10	10	Glass Over 1 Litre	7,565,146		**0.0%**	60.0%	0.0%	**60.0%**	-22.8%	-2.9%	**-25.0%**
11	32	Sleemans Bottles	6,180,960		**54.6%**	102.8%	-50.7%	**0.0%**	49.8%	41.5%	**112.0%**
12	5	Drink Pouch 0 - 1 L	5,095,994		**0.0%**	166.7%	0.0%	**166.7%**	-50.5%	51.5%	**-25.0%**
13	12	HDPE Plastics Over 1 Litre	3,379,532		**0.0%**	60.0%	0.0%	**60.0%**	-8.7%	9.6%	**0.0%**
14	3	Bi Metal 0 - 1 L	3,393,950		**0.0%**	162.3%	0.0%	**162.3%**	-44.2%	34.4%	**-25.0%**
15	18	Polycups 0-500ml	2,965,421		**0.0%**	166.7%	0.0%	**166.7%**	-47.9%	43.8%	**-25.0%**
16	11	HDPE 0 - 1 L	1,662,362		**0.0%**	154.8%	0.0%	**154.8%**	-47.6%	43.1%	**-25.0%**
17	4	Bi-Metal Cans Over 1 Litre	822,270		**0.0%**	60.0%	0.0%	**60.0%**	-29.6%	6.6%	**-25.0%**
18	7	Gable Top 0 -1 L	627,420		**0.0%**	122.2%	0.0%	**122.2%**	-35.2%	15.7%	**-25.0%**
19	37	Polypropylene	283,290		**0.0%**	60.0%	0.0%	**60.0%**	-30.5%	7.8%	**-25.0%**
20	2	Bag in Box Over 1 L	244,536		**0.0%**	60.0%	0.0%	**60.0%**	37.3%	-9.0%	**25.0%**
21	27	Imports Under 1 Litre	14,664		**0.0%**	60.0%	-64.6%	**-43.4%**	61.8%	31.0%	**112.0%**
22	20	PVC Plastics Over 1 Litre	69,688		**0.0%**	60.0%	0.0%	**60.0%**	44.0%	-13.2%	**25.0%**
23	13	Import Beer Cans (Bi-Metal)	66,472		**0.0%**	60.0%	-64.6%	**-43.4%**	60.4%	32.2%	**112.0%**
24	19	PVC 0 - 1 L	43,996		**0.0%**	154.8%	0.0%	**154.8%**	0.2%	-25.1%	**-25.0%**
25	34	Tetra Brik Over 1 Litre	35,833		**0.0%**	60.0%	0.0%	**60.0%**	-31.1%	8.9%	**-25.0%**
26	14	Import Beer PET 0 - 1 Litre	4,752		**0.0%**	60.0%	-64.6%	**-43.4%**	114.5%	-1.2%	**112.0%**
27	15	Liq/Wine Ceramics	566		**0.0%**	60.0%	0.0%	**60.0%**	61.1%	-22.4%	**25.0%**
28	8	Glass 0 - 500 ml	-		**0.0%**	43.6%	0.0%	**43.6%**	-35.9%	-5.4%	**-39.4%**
29	9	Glass 501 - 1 Litre	-		**0.0%**	60.0%	0.0%	**60.0%**	-39.6%	-9.9%	**-45.6%**
30	23	Big Rock Bottles	-		**54.6%**	102.8%	-50.7%	**0.0%**	36.4%	-0.8%	**35.3%**
31	24	Beer Cans - Deposit Only									
32	25	Unusable ISBs									
33	30	Molson Obsolete									
34	31	Over 1 Litre Bottles									
35	36	Aerosol 0 - 1 Litre	-		**0.0%**	60.0%	0.0%	**60.0%**	61.1%	-22.4%	**25.0%**
36			1,428,953,298								

		implemented			**implemented**			**recommended**
37	**Average Handling Commission per Container**	Based on Cal 2002 Data			Based on Cal 2006 Forecast			
38	ABCRC	**-1.2%**	3.9%	22.2%	**26.9%**	-20.8%	17.5%	**-7.0%**
39	BDL	**54.6%**	9.7%	-8.9%	**0.0%**	32.6%	5.0%	**39.1%**
		9.7%	5.5%	13.3%	**19.5%**	-8.5%	13.3%	**3.7%**

* Weighted Average for Glass 0 to 500 ml & Glass 501 - 1 litre, which were combined into Glass 1 to 1 l Jan 1, 2006

Schedule B

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV I
HISTORICAL & PROPOSED HANDLING COMMISSION IMPACT

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
			Based on Cal 2002 Volumes			Based on Cal 2006 Volumes	
	Product ID	Product Name	Cal 2002 Volume	November 15, 2001 to June 6, 2002 Rate Impact	June 7, 2002 to Current Rate Impact	Cal 2006 Volume	DCA Proposed 2006 Dec 11 2006 Report) Rate Impact
1	1	Pop Cans 0 - 1 L	379,888,338	($645,810)	$0	394,070,893	$4,461,851
2	26	Beer Cans	256,380,072	$2,563,801	$0	315,810,552	$3,533,516
3	16	PET 0 - 1 L	118,679,898	$0	$878,231	247,387,848	($2,670,236)
4	33	Industry Standard Bottles	116,562,648	$1,165,626	$0	150,299,592	$1,500,823
5	41	Glass 0 - 1 Litre *	-	$0	$0	99,552,664	($3,135,512)
6	21	Tetra Brik 0 - 1 L	65,763,204	$0	$1,117,974	73,819,357	($955,820)
7	17	PET Plastics Over 1 Litre	57,710,727	$0	$1,442,768	54,360,485	($1,156,546)
8	35	Import Beer Bottles	30,568,643	$305,686	$0	53,659,131	$935,624
9	0	Gable Top Over 1L	5,709,631	$0	$171,289	7,535,924	($150,718)
10	10	Glass Over 1 Litre	8,091,388	$0	$242,742	7,565,146	($151,303)
11	32	Sleemans Bottles	4,209,204	$42,092	$0	6,180,960	$195,936
12	5	Drink Pouch 0 - 1 L	2,214,724	$0	$110,736	5,095,994	($101,920)
13	12	HDPE Plastics Over 1 Litre	2,990,716	$0	$89,721	3,379,532	$0
14	3	Bi Metal 0 - 1 L	2,145,644	$0	$106,209	3,393,950	($67,879)
15	18	Polycups 0-500ml	2,941,214	$0	$147,061	2,965,421	($59,308)
16	11	HDPE 0 - 1 L	2,237,660	$0	$108,750	1,662,362	($33,247)
17	4	Bi-Metal Cans Over 1 Litre	948,254	$0	$28,448	822,270	($16,445)
18	7	Gable Top 0 -1 L	706,961	$0	$31,106	627,420	($12,548)
19	37	Polypropylene	-	$0	$0	283,290	($5,666)
20	2	Bag in Box Over 1 L	287,644	$0	$8,629	244,536	$4,891
21	27	Imports Under 1 Litre	36,576	$0	($794)	14,664	$465
22	20	PVC Plastics Over 1 Litre	91,379	$0	$2,741	69,688	$1,394
23	13	Import Beer Cans (Bi-Metal)	39,008	$0	($846)	66,472	$2,107
24	19	PVC 0 - 1 L	25,970	$0	$1,262	43,996	($880)
25	34	Tetra Brik Over 1 Litre	-	$0	$0	35,833	($717)
26	14	Import Beer PET 0 - 1 Litre	5,137	$0	($111)	4,752	$151
27	15	Liq/Wine Ceramics	2,292	$0	$69	566	$11
28	8	Glass 0 - 500 ml	57,641,289	$0	$1,256,580	-	$0
29	9	Glass 501 - 1 Litre	31,791,672	$0	$953,750	-	$0
30	23	Big Rock Bottles	2,896,692	$28,967	$0	-	$0
31	24	Beer Cans - Deposit Only	-	$0	$0	-	$0
32	25	Unusable ISBs	-	$0	$0	-	$0
33	30	Molson Obsolete	-	$0	$0	-	$0
34	31	Over 1 Litre Bottles	-	$0	$0	-	$0
35	36	Aerosol 0 - 1 Litre	492	$0	$15	-	$0
36			1,150,567,077	$3,460,362	$6,696,331	1,428,953,298	$2,118,023
37	**Impact by Manufacturer**						
38	ABCRC		770,481,885	($340,124)	$6,697,125	956,647,530	($3,112,718)
39	BDL		380,085,192	$3,800,486	($794)	472,305,768	$5,230,740
			1,150,567,077	$3,460,362	$6,696,331	1,428,953,298	$2,118,023
	% Change by Manufacturer						
40	ABCRC			-1.2%	23.7%		-7.0%
41	BDL			54.6%	0.0%		39.1%
41				9.7%	17.2%		3.7%

* Weighted Average for Glass 0 to 500 ml & Glass 501 - 1 litre, which were combined into Glass 1 to 1 l Jan 1, 2006

Schedule B-1

BEVERAGE CONTAINER MANAGEMENT BOARD
2006 PHASE II REPORT REV I
HISTORICAL & PROPOSED HANDLING COMMISSION PERCENT CHANGE

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
			Based on Cal 2002 Volumes			Based on Cal 2006 Volumes	
	Product ID	Product Name	Cal 2002 Volume	November 15, 2001 to June 6, 2002 Rate Impact	June 7, 2002 to Current Rate Impact	Cal 2006 Volume	DCA Proposed 2006 (Nov 27 2006 Report) Rate Impact
1	1	Pop Cans 0 - 1 L	379,888,338	-141.7%	0.0%	394,070,893	**40.0%**
2	26	Beer Cans	256,380,072	833.3%	0.0%	315,810,552	**39.5%**
3	16	PET 0 - 1 L	118,679,898	0.0%	13.4%	247,387,848	**-19.5%**
4	33	Industry Standard Bottles	116,562,648	34.4%	0.0%	150,299,592	**35.3%**
5	41	Glass 0 - 1 Litre *	-			99,552,664	**-42.0%**
6	21	Tetra Brik 0 - 1 L	65,763,204	0.0%	32.1%	73,819,357	**-24.4%**
7	17	PET Plastics Over 1 Litre	57,710,727	0.0%	33.3%	54,360,485	**-28.4%**
8	35	Import Beer Bottles	30,568,643	29.7%	0.0%	53,659,131	**61.6%**
9	0	Gable Top Over 1L	5,709,631	0.0%	37.5%	7,535,924	**-25.0%**
10	10	Glass Over 1 Litre	8,091,388	0.0%	37.5%	7,565,146	**-25.0%**
11	32	Sleemans Bottles	4,209,204	34.4%	0.0%	6,180,960	**112.0%**
12	5	Drink Pouch 0 - 1 L	2,214,724	0.0%	62.5%	5,095,994	**-25.0%**
13	12	HDPE Plastics Over 1 Litre	2,990,716	0.0%	37.5%	3,379,532	**0.0%**
14	3	Bi Metal 0 - 1 L	2,145,644	0.0%	61.9%	3,393,950	**-25.0%**
15	18	Polycups 0-500ml	2,941,214	0.0%	62.5%	2,965,421	**-25.0%**
16	11	HDPE 0 - 1 L	2,237,660	0.0%	60.8%	1,662,362	**-25.0%**
17	4	Bi-Metal Cans Over 1 Litre	948,254	0.0%	37.5%	822,270	**-25.0%**
18	7	Gable Top 0 -1 L	706,961	0.0%	55.0%	627,420	**-25.0%**
19	37	Polypropylene	-			283,290	**-25.0%**
20	2	Bag in Box Over 1 L	287,644	0.0%	37.5%	244,536	**25.0%**
21	27	Imports Under 1 Litre	36,576	0.0%	-76.7%	14,664	**112.0%**
22	20	PVC Plastics Over 1 Litre	91,379	0.0%	37.5%	69,688	**25.0%**
23	13	Import Beer Cans (Bi-Metal)	39,008	0.0%	-76.7%	66,472	**112.0%**
24	19	PVC 0 - 1 L	25,970	0.0%	60.8%	43,996	**-25.0%**
25	34	Tetra Brik Over 1 Litre	-			35,833	**-25.0%**
26	14	Import Beer PET 0 - 1 Litre	5,137	0.0%	-76.7%	4,752	**112.0%**
27	15	Liq/Wine Ceramics	2,292	0.0%	37.5%	566	**25.0%**
28	8	Glass 0 - 500 ml	57,641,289	0.0%	30.4%	-	
29	9	Glass 501 - 1 Litre	31,791,672	0.0%	37.5%	-	
30	23	Big Rock Bottles	2,896,692	34.4%	0.0%	-	
31	24	Beer Cans - Deposit Only	-			-	
32	25	Unusable ISBs	-			-	
33	30	Molson Obsolete	-			-	
34	31	Over 1 Litre Bottles	-			-	
35	36	Aerosol 0 - 1 Litre	492	0.0%	37.5%	-	
36			1,150,567,077	9.7%	17.2%	1,428,953,298	**3.7%**
37	**Impact by Manufacturer**						
38	ABCRC		770,481,885	-1.2%	23.7%	956,647,530	**-7.0%**
39	BDL		380,085,192	54.6%	0.0%	472,305,768	**39.1%**
			1,150,567,077	9.7%	17.2%	1,428,953,298	**3.7%**

* Weighted Average for Glass 0 to 500 ml & Glass 501 - 1 litre, which were combined into Glass 1 to 1 l Jan 1, 2006

APPENDIX III – DCA PROPOSED 2006 HANDLING COMMISSIONS

Product ID	Product Name	ID	Payable from Manufacturer to BCMB (¢/cont)	Payable from Manufacturer to Depot (¢/cont)	Total Handling Commission (¢/cont)
1	Pop Cans 0 - 1 L	1	0.40	3.56	3.96
26	Beer Cans	2	0.40	3.55	3.95
16	PET 0 - 1 L	3	0.40	4.06	4.46
33	Industry Standard Bottles	4	0.40	3.43	3.83
23	Big Rock Bottles	4	0.40	3.43	3.83
8	Glass 0 - 500 ml	5	0.40	3.95	4.35
9	Glass 501 - 1 Litre	5	0.40	3.95	4.35
41	Glass 0 - 1 Litre	5	0.40	3.95	4.35
21	Tetra Brik 0 - 1 L	6	0.40	3.61	4.01
17	PET Plastics Over 1 Litre	7	0.40	4.97	5.37
35	Import Beer Bottles	8	0.40	4.17	4.57
10	Glass Over 1 Litre	9	0.40	5.60	6.00
0	Gable Top Over 1L	10	0.40	5.60	6.00
5	Drink Pouch 0 - 1 L	11	0.40	5.60	6.00
12	HDPE Plastics Over 1 Litre	12	0.40	7.60	8.00
18	Polycups 0-500ml	13	0.40	5.60	6.00
3	Bi Metal 0 - 1 L	14	0.40	5.60	6.00
11	HDPE 0 - 1 L	15	0.40	5.60	6.00
4	Bi-Metal Cans Over 1 Litre	16	0.40	5.60	6.00
7	Gable Top 0 -1 L	17	0.40	5.60	6.00
2	Bag in Box Over 1 L	18	0.40	9.60	10.00
34	Tetra Brik Over 1 Litre	19	0.40	5.60	6.00
20	PVC Plastics Over 1 Litre	20	0.40	9.60	10.00
37	Polypropylene	21	0.40	5.60	6.00
19	PVC 0 - 1 L	22	0.40	5.60	6.00
15	Liq/Wine Ceramics	23	0.40	9.60	10.00
36	Aerosol 0 - 1 Litre	23	0.40	9.60	10.00
32	Sleemans Bottles	24	0.40	5.60	6.00
14	Import Beer PET 0 - 1 Litre	25	0.40	5.60	6.00
13	Import Beer Cans (Bi-Metal)	26	0.40	5.60	6.00
27	Imports Under 1 Litre	27	0.40	5.60	6.00
24	Beer Cans - Deposit Only	23	0.40	9.60	10.00
25	Unusable ISBs	23	0.40	9.60	10.00
30	Molson Obsolete	23	0.40	9.60	10.00
31	Over 1 Litre Bottles	23	0.40	9.60	10.00

Payable from BCMB to Depot:	Depot Size Range (containers/year)		Fixed Fee ($/ month/ depot)
	-	500,000	$1,000
	500,000	1,000,000	$1,500
	1,000,000	2,000,000	$2,000
	over	2,000,000	$2,500