

Appendix A –

**Who Pays What
Analysis calculations by province**

Non-Alcohol Beverage Container Recovery in British Columbia		
January 1st-December 31st, 2001		
Description		Notes
Revenues from deposits	\$ 56,152,879	
Container recycling fees (CRF)	\$ 12,295,800	Recycling fees charged directly to consumers at the point of purchase.
Sale of recyclable materials	\$ 10,045,876	
Contract Fees	\$ 2,343,935	
Other	\$ 759,929	
TOTAL	\$ 81,598,419	
Expenses		
Handling fees for deposit-bearing containers	\$ 24,751,427	
Deposits returned to consumers	\$ 39,758,689	There is \$16,394,190 left over as "unredeemed deposits"
Transportation and processing	\$ 7,459,969	
Depot operations	\$ 594,526	
Administration	\$ 2,382,607	
Consumer awareness	\$ 1,187,636	
Research and Development	\$ 115,463	
Amortization	\$ 57,040	
TOTAL	\$ 76,307,357	
Net Surplus	\$ 5,291,062	
<i>Source: Encorp Pacific (Canada) 2001 annual report</i>		
ANALYSIS		
Net system COST TO THE BEVERAGE INDUSTRY per container sold	NONE	In BC the beverage industry has NO direct costs associated with the deposit return program.
Net system <u>surplus</u> to Encorp Pacific	\$ 5,291,062	Net system cost/ (surplus) is calculated by subtracting revenues from expenses. \$81,598,419 - \$76,307,357 = \$5,291,062
Net system <u>SURPLUS</u> per container sold	.62-cents	Net system cost (surplus) per container sold is calculated by dividing the net system cost/(surplus) by the total containers sold: \$5,291,062/ 848,851,252= .62-cents/unit sold.
Net system cost per unit sold <u>without</u> unredeemed deposit revenue	2.8-cents	Even though in BC Encorp Pacific uses unredeemed deposit revenue to offset their costs, a system cost before unredeemed deposits can be attained. This cost is represented only for program-to-program comparisons. Total expenses minus all revenues (except unredeemed deposits and CRF revenue) divided by the containers sold = \$23,398,928 / 848,851,252 = 2.8-cents/unit sold.

<p>Net system cost per unit sold <u>with</u> unredeemed deposit revenue</p>	<p>.83-cents</p>	<p>Further subtract the unredeemed deposits (\$16,394,190) as an additional revenue source and divide by the number of containers sold: \$7,004,738/ 848,851,252 = .825-cents/unit sold.</p>
<p>CONSUMERS RECYCLING COST</p>	<p>.83-cents</p>	<p>In BC, it is consumers that pay directly for the system costs (through the CRF). The CONSUMER RECYCLING COST represents what consumers actually pay when purchasing product, for the system. This is represented by the net system cost divided by containers sold. \$7,004,738/ 848,851,252 = .825-cents/unit purchased.</p>
<p>CONSUMER WASTING COST (Polluter Pays)</p>	<p>6.9-cents</p>	<p>Consumers that choose not to return containers are paying an additional cost through their forfeited deposit. This additional cost is only borne by the polluters/wasters - CONSUMER WASTING COST that is represented by the unredeemed deposit revenue divided by the unredeemed containers. $\\$16,394,190 / 237,059,216 = 6.9\text{-cents/unit wasted.}$</p>
<p>NON-SYSTEM RELATED CONSUMER COST (for operating year 2001)</p>	<p>.62-cents</p>	<p>In 2001 consumers (through the CRF) paid in excess of \$5,291,062 more than the cost of recovery. \$5,291,062 / 848,851,252 = .62-cents/unit</p>

British Columbia Liquor Container Recovery		
(Not including refillable beer and beer cans)		
2001-2002		
The Liquor Distribution Branch (LDB) contracts out collection and processing for all their containers, except beer cans and refillable beer. - See contract fee schedule and calculations in Appendix B.		
Description	Costs	Notes
Net system cost to LDB Liquor	4-cents	Total cost divided by total containers sold. $\$5,288,963 / 131,079,148 = \mathbf{4-cents/unit\ sold.}$
Net system cost to the beverage industry	NONE	LDB does not charge beverage industry directly for any additional cost. Instead a Container Service and Handling Fee is part of the price mark-up.
Net system COST TO THE BEVERAGE INDUSTRY per container sold	NONE	Ibid.
Net system cost without unredeemed deposit revenue	7.9-cents	Based on Encorp Pacific's service fee Schedule, a net system cost can be determined based on sales by container type. See Appendix B for calculations. Gross cost $\$10,307,539$ divided by the total number of units sold $131,079,148 = \mathbf{7.9-cents /unit\ sold.}$
Net system cost with unredeemed deposit revenue	6.2-cents	Further subtract the unredeemed deposit revenue ($\$2,155,394$) from the gross cost and divide by the units sold. $\$8,152,144 / 131,079,148 = \mathbf{6.2-cents /unit\ sold.}$
CONSUMER RECYCLING COST	2.2-cents	LDB places a Container Service and Handling Fee in the price of the beverage. Total revenue collected directly from these fees was $\$2,863,182 / 131,079,148 = \mathbf{2.2-cents/unit\ sold.}$
CONSUMER WASTING COST (Polluter Pays)	11.5-cents	Consumers that choose not to return containers pay an additional cost through their forfeited deposit. This additional cost is only borne by the polluters/wasters - WASTING CONSUMER COST that is represented by the unredeemed deposit revenue divided by the unredeemed containers. $\$2,155,394 / 18,758,924 = \mathbf{11.5-cents/unit\ wasted.}$
NON-SYSTEM RELATED CONSUMER COST	NONE	The entire Container Service and Handling Fee is used to offset system costs. Therefore there are no NON-SYSTEM RELATED CONSUMER COSTS.

Beverage Container Recovery in Alberta		
(Not including domestic beer)		
January 1st-December 31st, 2001		
Description	Costs	Notes
Revenues generated from unredeemed deposits	\$ 14,486,002	
Service fees paid by manufacturers (brand owners)	\$ 16,396,572	This represents the "out-of-pocket" contribution by industry.
Sale of recyclable materials	\$ 13,060,757	
Other income	\$ 479,009	
Gain (loss) on foreign exchange	\$ 108,387	
TOTAL	\$ 44,530,727	
Expenses		
Handling fees for deposit-bearing containers	\$ 28,114,900	
Warehouse	\$ 3,949,232	
Transportation	\$ 2,749,152	
Administration	\$ 1,259,163	
Marketing and Technology	\$ 913,220	
Depreciation and financing	\$ 369,446	
Income taxes	\$ 13,903	
Other - Beverage Container Management Board (BCMB)	\$ 483,520	This represents 70% of BCMB total annual budget representing that portion of containers managed by the ABCRC.
TOTAL	\$ 37,852,536	
Surplus	\$ 6,678,191	
Reimbursement to manufacturers (brand owners)	\$ 2,500,000	
Net surplus	\$ 4,178,191	
<i>Source: ABCRC's annual report 2001</i>		
ANALYSIS		
Net system COST TO THE BEVERAGE INDUSTRY per container sold	1.4-cents	In AB the beverage industry paid "out-of-pocket" \$13,896,572 divided by the number of units sold: $\$13,896,572 / 961,972,040 = 1.4\text{-cents/unit sold}$
Net system surplus to ABCRC	\$ 4,178,191	
Net system SURPLUS per container sold	.43-cents	Net system cost (surplus) per container sold is calculated by dividing the net system cost/(surplus) by the total containers sold: $\$4,178,191 / 961,972,040 = .43\text{-cents/unit sold}$.

<p>Net system cost per unit sold <u>without</u> unredeemed deposit revenue</p>	<p>2.5-cents</p>	<p>Even though in AB, ABCRC uses unredeemed deposit revenue to offset their costs, a system cost before unredeemed deposits can be attained. This cost is represented only for program-to-program comparisons. Total expenses minus all revenues (except unredeemed deposits and fees from brand owners) divided by the containers sold = $\\$24,204,383 / 961,972,040 = \mathbf{2.5-cents/unit\ sold.}$</p>
<p>Net system cost per unit sold <u>with</u> unredeemed deposit revenue</p>	<p>1-cent</p>	<p>Further subtract the unredeemed deposits (\$14,486,002) as an additional revenue source and divide by the number of containers sold: $\\$9,718,381 / 961,972,040 = \mathbf{1.0-cent/unit.}$</p>
<p>CONSUMERS RECYCLING COST</p>	<p>NONE</p>	<p>This represents what consumers actually paid for this system/container purchased. In Alberta, the beverage industry paid directly for any system cost shortfall. However, as of Sept 2002 non-alcohol containers began carrying a container recycling fee or CRF as in BC. Wine and spirit containers also carry these fees (Enviro-Levies) however, they are built into the price of the product.</p>
<p>CONSUMER WASTING COST (Polluter Pays)</p>	<p>5.6-cents</p>	<p>Consumers that choose not to return containers are paying additional cost through their forfeited deposit. This additional cost is only borne by the polluters/wasters - CONSUMER WASTING COST that is represented by the unredeemed deposit revenue divided by the unredeemed containers. $\\$14,486,002 / 258,905,228 = \mathbf{5.6-cents/unit\ wasted.}$</p>
<p>NON-SYSTEM RELATED CONSUMER COST</p>	<p>NONE</p>	

Beverage Container Recovery in Saskatchewan		
(Not including refillable beer)		
April 1st, 2001-March 31st, 2002		
Description		Notes
Contract Revenue	\$ 9,259,230	SARCAN is funded through a contractual agreement with the provincial government.
Sale of recyclable materials	\$ 3,909,436	
Other Revenue	\$ 212,733	
TOTAL	\$ 13,381,399	
Expenses		
SARCAN Administration	\$ 1,219,902	
Collection and transportation	\$ 9,698,912	
Processing	\$ 1,798,537	
Depreciation and Amortization	\$ 578,026	
TOTAL	\$ 13,295,377	
PROFIT/(LOSS)	\$ 86,022	
<i>Source: SARC Annual Report - 2001-2002</i>		
ANALYSIS		
Net system COST TO THE BEVERAGE INDUSTRY per container sold	NONE	In SK the beverage industry has no direct costs associated with the deposit return program.
Net system cost without unredeemed deposit revenue	3.4-cents	Unredeemed deposit revenue is not used to offset SARCAN's system costs. This cost is represented for program-to-program comparisons. Total expenses minus material revenues and profit divided by the containers sold: $\$9,173,208 / 266,991,853 = 3.4\text{-cents sold.}$
Net system cost with unredeemed deposit revenue	1.8-cents	Further subtract the unredeemed deposits (\$4,478,663) as an additional revenue source and divide by the number of containers sold: $\$4,694,545 / 266,991,853 = 1.76\text{-cents/unit sold.}$
CONSUMERS RECYCLING COST	1.8-cents	In SK, consumers pay an "Environmental Handling Charge" or EHC when they buy a beverage. Only part of this revenue is required to fund the system. The rest of this revenue goes into the Province's general revenue fund. The CONSUMERS RECYCLING COST represents what consumers actually pay for this system/container purchased (through the EHC) net of unredeemed deposits. This is equal to $\$4,694,545 / 266,991,853 = 1.76\text{-cents/ unit purchased.}$
CONSUMER WASTING COST (Polluter Pays)	9-cents	Consumers that choose not to return containers are paying additional cost through their forfeited deposit. This cost is only borne by the polluters/wasters - the unredeemed deposit revenue divided by the unreturned containers represents the CONSUMER WASTING COST. - It is estimated that the province generated about \$4,478,663 in unredeemed deposits in 2001-2002. $(\$4,478,663 / 49,967,342 = 8.96\text{-cents/unit wasted.}$

<p>NON-SYSTEM RELATED CONSUMER COST</p>	<p>3.4-cents</p>	<p>In SK consumers pay an Environmental Handling Charge. Only part of this revenue is needed to fund the system, anything over and above what is needed is a NON-SYSTEM RELATED CONSUMER COST. In 2001-2002 the EHC generated \$13,753,825 for the provincial government. Only \$4,694,545 of this was needed to offset system costs after unredeemed revenues (\$4,478,663). Therefore the difference, \$9,059,280 was a non-system related consumer cost. \$ 9,059,280 / 266,991,853 containers sold = 3.4-cents/unit.</p>
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Beverage Container Recovery in Nova Scotia		
(Not including refillable beer)		
April 1st, - March 31st, 2002		
Description		Notes
Gross revenues from deposits	\$ 28,965,713	\$10,703,163 is half-back revenue, \$10,703,163 is redeemed deposits and \$7,296,837 is unredeemed deposit revenue.
Material revenues from the sale of recyclable materials	\$ 3,493,840	
TOTAL	\$ 32,459,553	
Expenses		
Handling fees for deposit-bearing containers	\$ 6,447,877	The handling fee was 2.75-cents per container in 2001-2002. This fee is currently 3.1-cents/unit.
Deposits returned to consumers	\$ 10,703,163	Consumers returning containers receive 5 and 10-cents back on a 10 and 20-cent deposit - "half-back system".
Transportation	\$ 937,969	Local cartage is \$818,734 and freight in is \$119,235 = \$937,969
Processing	\$ 1,230,842	Regional processing: \$808,465 and central processing: \$422,377 = \$1,230,842
Administration	\$ 1,117,168	Included in this figure is the administration for the scrap tire program. A separate deposit-return administration cost is not available.
Closing inventory	\$ 16,737	Opening inventory \$74,724 minus closing inventory \$91,461 = \$16,737
TOTAL	\$ 20,453,756	
PROFIT	\$ 12,005,797	From this profit, \$3,823,437 was paid out to the province in HST
<i>Source - Resource Recovery Fund Board Annual report 2001-2002.</i>		
ANALYSIS		
Net system COST TO THE BEVERAGE INDUSTRY per container sold	NONE	In NS the beverage industry has NO direct costs associated with the deposit return program.
Net system <u>surplus</u> to RRFB	\$ 8,182,360	Net system cost/(surplus) is calculated by subtracting revenues from expenses including HST. \$28,636,116 - \$20,453,756 = \$8,182,360
Net system <u>SURPLUS</u> per container sold	2.9-cents	Net system cost (surplus) per container sold is calculated by dividing the net system cost/(surplus) by the total containers sold: \$8,182,360 / 282,996,682 = (2.89)-cents/unit sold.
Net system cost without unredeemed deposit revenue	2.2-cents	Even though RRFB uses unredeemed deposit revenue to offset their costs, a system cost before unredeemed deposits can be attained. This cost is represented for program-to-program comparisons. Net Expenses (\$9,750,593) minus material revenues (\$3,493,840) divided by the containers sold = \$6,256,753 / 282,996,682 = 2.2-cents/unit sold.
Net system <u>surplus</u> with unredeemed deposit revenue	.37-cents	Further subtract the unredeemed deposits (\$7,296,837) as an additional revenue source and divide by the number of containers sold: (\$6,256,753 - \$7,296,837) / 282,996,682 = (.37)-cents/unit sold.

CONSUMER RECYCLING COST	NONE	In NS, consumers pay a "half-back" to help off-set system costs and revenue is used to fund municipal waste diversion programs and market development in the province. In 2001-2002 none of the half-back revenue was required to fund the system, because the unredeemed deposit revenue was more than the net system costs. The CONSUMER RECYCLING COST represents what all consumers actually pay for this system per container purchased. Therefore, there was NO CONSUMER RECYCLING COST .
CONSUMER WASTING COST (Polluter Pays)	15-cents	Consumers that choose not to return containers are paying additional cost through their forfeited deposit. This additional cost is only borne by the polluters/wasters - CONSUMER WASTING COST that is represented by the unredeemed deposit revenue divided by the unreturned containers. $\$7,296,837 / 48,476,842 = \mathbf{15\text{-cents/unit wasted}}$.
NON-SYSTEM RELATED CONSUMER COST	4.6-cents	In NS consumers pay a half-back on all redeemed containers. Any revenue generated from consumers over and above what is needed to run the system is a NON-SYSTEM RELATED CONSUMER COST. In 2001-2002 it is estimated that the half-backs generated revenue of \$10,703,163 for the provincial government (HST) and municipal waste diversion programs. This cost can therefore be calculated by dividing the half-back revenue by the amount of containers returned. $\$10,703,163 / 234,519,840 = \mathbf{4.6\text{-cents/unit purchased}}$.

Note: The non-system related consumer cost should be at least 5-cents, representing the lowest possible half-back. However, based on RRFB reported number of units redeemed the value is only 4.6-cents. This indicates that the container redemption rate may be overstated.

New Brunswick Liquor Container Recovery		
(not including refillable beer)		
April 1, 2001 - March 31, 2002		
Description	Notes	
Unredeemed deposits	\$ 68,398	
TOTAL	\$ 68,398	
Expenses		
Program Costs	\$ 384,929	NB Liquor Commission's Annual report identifies the program costs in their budget as "Beverage Container Redemption Costs" - Revenues and Cost data from Rayan Industries is considered as proprietary.
TOTAL	\$ 384,929	
Net cost/profit	\$ 316,531	
<i>Source: NB Liquor Annual Report 2002</i>		
ANALYSIS		
Net system cost to NB Liquor	.96-cents	Total cost divided by total containers sold. $\$316,531 / 40,082,460 = .96\text{-cents/unit sold.}$
Net system cost to the beverage industry	NONE	NB Liquor does not impose any additional cost onto the liquor beverage industry as a result of this program.
Net system COST TO THE BEVERAGE INDUSTRY per container sold	NONE	Ibid.
Net system cost without unredeemed deposit revenue	N/a	There is very little available data on the cost relating to the program for liquor bottles in New Brunswick. NB Liquor reports a system cost of \$384,929 and revenue from unredeemed deposits of \$68,398. NB Liquor contracts collection and processing to Rayan Industries, whose financials are proprietary. Therefore, a net system cost cannot be attained.
Net system cost with unredeemed deposit revenue	N/a	Ibid.
CONSUMER RECYCLING COST	6.7-cents	In NB, consumers pay a "half-back" to help off-set system costs and revenue is used to fund the Environmental Trust Fund (ETF), (note: a small amount also goes towards general revenues - about \$.005-cents.) The CONSUMER RECYCLING COST represents what all consumers actually pay for this system per container purchased. Using ratio data from sales from fiscal 2002, we can determine an estimate of half-back revenue (\$2,863,917) See calculation in Appendix C. Further subtract the ETF charge of 2.45-cents per unit (about \$759,611) and divide by the number of units redeemed. $\$2,863,919 - \$744,109 / 31,004,560 = \mathbf{6.7\text{-cents/unit purchased.}}$
CONSUMER WASTING COST (Polluter Pays)	18.3-cents	Consumers that choose not to return containers are paying additional cost through their forfeited deposit. This additional cost is only borne by the polluters/wasters - CONSUMER WASTING COST that is represented by the unredeemed deposit revenue divided by the unredeemed containers. Unredeemed deposit revenue could not be attained from NB Liquor. However using ratio data from sales, we can determine a estimate of unredeemed deposit revenue (\$1,661,256) See calculation in appendix C. $\$1,661,256 / 9,077,900 = \mathbf{18.3\text{-cents/unit wasted.}}$

NON-SYSTEM RELATED CONSUMER COST	2.45-cents	For every container redeemed in NB, 2.45-cents is put into the Environmental Trust Fund and .005-cents towards general revenues. Consumers pay for this through the half-back. Therefore, the NON-SYSTEM RELATED CONSUMER COST is 2.45-cents/unit purchased .
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Beverage Container Recovery in Newfoundland & Labrador		
(Not including refillable beer)		
April 1st, 2001 - March 31st, 2002		
Description		Notes
Gross revenues from deposits	\$ 13,711,087	
Material revenues from the sale of recyclable materials	\$ 1,816,922	
Closing inventory	\$ 86	Opening inventory \$122,914 minus closing inventory \$123,000 = \$86
Interest on income	\$ 222,642	
TOTAL	\$ 15,750,737	
Expenses		
Handling fees for deposit-bearing containers	\$ 3,202,529	The handling fee is 2.75-cents per container. (The handling fee was increased to 3-cents/unit as of Sept 2001)
Half-Back refund returned to consumers	\$ 5,021,618	Consumers returning containers receive 3-cents on a 6-cent deposit, and 10-cents on a 20-cent deposit. In 2001 the levels were increased to: 5-cents returned on an 8-cent deposit and 10-cents on 20-cent deposit.
Transportation	\$ 965,348	
Processing	\$ 1,883,593	
Depot fees	\$ 415,002	
Other material purchases	\$ 73,000	
Other expenses	\$ 171,027	Quality assurance: \$82,988 + Shipping supplies: \$69,900 + School Programs: \$18,139 = \$171,027
Administration	\$ 1,362,538	
HST pay-out	\$ 1,848,404	
TOTAL	\$ 14,943,059	
PROFIT	\$ 807,678	
<i>Source: Multi-Materials Stewardship Board Annual Report 2002</i>		
ANALYSIS		
Net system surplus TO THE BEVERAGE INDUSTRY per container sold	NONE	In NF the beverage industry has no direct costs associated with the deposit return program.
Net system <u>surplus</u> to MMSB	\$ 807,678	Net system cost/surplus is calculated by subtracting revenues from expenses including HST. \$15,750,737 - \$14,943,059 = \$807,678
Net system <u>SURPLUS</u> per container sold	.46-cents	Net system cost (surplus) per container sold is calculated by dividing the net system cost/(surplus) by the total containers sold: \$807,678 / 177,206,480 = .46-cents/unit sold.
Net system cost without unredeemed deposit revenue	2.6-cents	Even though MMSB uses unredeemed deposits and half-backs revenue to offset their costs, a system cost before unredeemed deposits can be attained. This cost is represented for program-to-program comparisons. Total expenses (not including half-backs) minus revenues (not including unredeemed deposits) divided by the containers sold. \$4,534,921 / 177,206,480 = 2.6-cents/unit sold.

<p>Net system surplus with unredeemed deposit revenue</p>	<p>.004-cents... 2.1-cents</p>	<p>Unredeemed deposit revenue could not be attained from MMSB. Without knowing the ratio between 5-cent and 10-cent refunds, the unredeemed revenue is unattainable. However a high - low range can be determined. See calculation in appendix D. Further subtract the unredeemed deposits from net cost (\$5,237,204 ... \$8,303,089) - \$4,534,921 = net cost without unredeemed revenue \$702,203.... \$3,768,168. Divide by the number of containers sold: 177,206,480 = (.004....2.1)-cents/unit sold.</p>
<p>CONSUMERS RECYCLING COST</p>	<p>N/a</p>	<p>There is insufficient data to calculate the Consumers Recycling Cost.</p>
<p>CONSUMER WASTING COST (Polluter Pays)</p>	<p>7.5-cents ... 12-cents</p>	<p>Consumers that choose not to return containers are paying an additional cost. This additional cost is only borne by the polluters/wasters - the CONSUMER WASTING COST that is represented by the unredeemed deposit revenue divided by the unreturned containers. (\$5.237204 ... \$8,303,089) / 69,046,505 = 7.5-cents ... 12-cents/unit wasted.</p>
<p>NON-SYSTEM RELATED COST</p>	<p>2.5-cents</p>	<p>In 2002, consumers paid portion of the refund towards provincial HST and a surplus to the MMSB = \$2,656,082. Therefore the NON-SYSTEM RELATED COST was \$2,656,082/ 108,159,975 = 2.5-cents/unit purchased.</p>

PEI Liquor Control Commission
Data from the Prince Edward Island Liquor Control Commission is incomplete relating to containers sold versus containers redeemed. This information will be available at a later date.

Appendix B

British Columbia – Liquor Distribution Branch Program Cost and Revenue Breakdown (not including domestic beer products)

Container Type	Sales in units*	Returns in units	Lost units	Recovery Rate	deposit	gross cost	unredeemed deposit revenue	net cost	cost per unit recovered**	gross cost per unit sold	net cost per unit sold	container Service & Handling fees***	revenue collected from fees	net cost to LDB per unit sold****
NRG beer/cider (above 1 litre)	795,460	645,851	149,609	81%	\$ 0.20	\$ 90,419	\$ 29,922	\$ 60,497	\$ 0.140	\$ 0.114	0.076	\$ 0.04	\$ 31,818	\$ 0.04
NRG beer/cider (litre and below)	65,225,501	57,542,962	7,682,539	88%	\$ 0.10	\$ 3,740,293	\$ 768,254	\$ 2,972,039	\$ 0.065	\$ 0.057	0.046	\$ 0.02	\$ 1,304,510	\$ 0.03
NRG wine/spirit (above 1 litre)	11,053,443	9,657,644	1,395,799	87%	\$ 0.20	\$ 1,352,070	\$ 279,160	\$ 1,072,910	\$ 0.140	\$ 0.122	0.097	\$ 0.04	\$ 442,138	\$ 0.06
NRG wine/spirit (litre and below)	44,650,967	37,860,338	6,790,629	85%	\$ 0.10	\$ 4,543,241	\$ 679,063	\$ 3,864,178	\$ 0.120	\$ 0.102	0.087	\$ 0.02	\$ 893,019	\$ 0.07
			-					\$ -						
Plastic (above 1 litre)	2,826,206	2,400,017	426,189	85%	\$ 0.20	\$ 264,002	\$ 85,238	\$ 178,764	\$ 0.110	\$ 0.093	0.063	\$ 0.03	\$ 84,786	\$ 0.03
Plastic (litre and below)	5,139,764	3,649,027	1,490,737	71%	\$ 0.10	\$ 255,432	\$ 149,074	\$ 106,358	\$ 0.070	\$ 0.050	0.021	\$ 0.01	\$ 51,398	\$ 0.01
			-					\$ -						
Bag-in-the-Box	1,387,807	564,385	823,422	41%	\$ 0.20	\$ 62,082	\$ 164,684	\$ (102,602)	\$ 0.110	\$ 0.045	-0.074	\$ 0.04	\$ 55,512	\$ (0.11)
TOTAL	131,079,148	112,320,224	18,758,924	86%	-	\$ 10,307,539	2,155,394	\$ 8,152,144	\$ 0.092	\$ 0.079	0.062	-	\$ 2,863,182	-

Important Notes:

*Sales and return figures are for fiscal 2001-2002 - (April -May)

***"Cost per unit recovered" are the new fees charged to LDB by Encorp Pacific per unit recovered from GLS or depots through their contract (as of October 2001). Note the fees for depot collected containers are larger in some cases. The fees listed represent the higher of the two because it was estimated that over 60% of these containers are returned to depots. The exact data for units recovered from GLS versus depots was not available.

***Container Service and Handling Fees are built into the price of the product. They are implemented by LDB.

****Net cost to LDB per unit sold represents the cost to LDB that has not been recovered through the Container Service and Handling Fee.

Appendix C

Additional Data & Calculations for New Brunswick Liquor 2001-2002

Container Type	Units Sold	Deposits	Revenue	
NB Liquor greater than 500 ml spirits & liquors	2,824,433	0.1	\$ 28,244	
Wine	2,909,694	0.1	\$ 29,097	
Beer (recyclable only)	288,560	0.1	\$ 2,886	
Coolers	450,440	0.1	\$ 4,504	
TOTAL	6,473,127		\$ 64,731	Total deposits paid
As a % of the total	17%			
NB Liquor greater than or equal to 500 ml spirits and liquors	3,123,001	0.2	\$ 62,460	
Wine	98,396	0.2	\$ 1,968	
Beer (recyclable only)	24,325,429	0.2	\$ 486,509	
Coolers	5,142,640	0.2	\$ 102,853	
TOTAL	32,689,466		\$ 653,789	Total deposits paid
	83%			
GRAND TOTAL SOLD	39,162,593		\$ 718,521	Grand Total deposits paid
Unredeemed units for fiscal 2002	9,077,900			
Assuming 10-cents lost on 17% unredeemed units	\$ 154,324			
Assuming 20-cents lost on 83% of unredeemed units	\$ 1,506,931			
Total estimate for unredeemed deposits	\$ 1,661,256			
Wasting Consumers	0.183			
Estimated redeemed units for fiscal 2002	31004560			
Assuming 5-cents generated on 17% redeemed units.	\$ 263,539			
Assuming 10-cents generated on 83% of redeemed units.	\$ 2,573,378			
Total estimated half-back revenue	\$ 2,836,917			
Recycling Consumer Cost	0.067			

Appendix D

Additional Data & Calculations for Newfoundland

In order to determine net system cost with unredeemed revenue and the Wasting Consumer Cost, the value of unredeemed revenue is required. In the case of Newfoundland, this data was not available for the analysis. However, it is possible to derive a minimum and maximum range of unredeemed deposits, and half-back revenue, which can provide a high low range for various cost values.

Calculation:

Total deposits collection = \$13,711,087

X = total half-backs

Y = total deposits

\$5,237,204 = the minimum amount of unredeemed deposits (based on recovered number of units times the minimum value of the deposit of 8-cents)

\$5,407,998 = the minimum amount of refunds (based on recovered number of units times the minimum value of the refund of 5-cents)

Therefore:

$$\$13,711,087 = (\$5,237,204 + X) + (\$5,407,998 + Y)$$

$$\$13,711,087 = \$10,645,202 + X + Y$$

$$\$3,065,885 = X + Y$$

if X = 0, then Y = \$3,065,885

and

if Y = 0, then X = \$3,065,885

Therefore, the high low range of unredeemed deposits is \$5,237,204 to \$8,303,089

and;

Therefore, the high low range of half-back revenue is \$5,407,998 to \$8,473,883