

first year report of a 57% return rate in Connecticut, which expanded its bottle bill to cover bottled water.

- The EBB is estimated to increase tons of PET recovery by 150% (3,930 tons, total before losses). However, 1,200 tons of the 3,930 tons are estimated to come out of the existing recycling system, with the rest diverted from disposal because there aren't enough tons available in Vermont's waste stream based on the Waste Composition Study.
- Similarly, recovery of aluminum is expected to increase under an EBB, but much of this increase is expected to come from MRFs instead of being diverted from disposal, since so little aluminum is found in Vermont's refuse.

Several stakeholders raised concerns during comments on the Interim Report about what the impact of an EBB would be on MRF revenues. Table 44, below provides a rough estimate of material losses and net revenues, after processing costs from MRFs under an EBB. Aluminum values are estimated at \$1,600 per ton (80 cents per pound) and PET at \$575 per ton. It is interesting to note that so little aluminum is now going to Vermont MRFs, and so little new aluminum would be diverted under an EBB, that the impact of losses under an EBB is assumed to be primarily associated with PET. The losses represented in Table 44 come from bottle bill material that is currently going to Vermont MRFs, not from bottle bill material being disposed.

**TABLE 44. ESTIMATED MATERIALS DIVERTED FROM VERMONT MRFS UNDER SYSTEM 4, UNIVERSAL SINGLE STREAM WITH EBB**

Lost from MRFs to EBB Material	Volume (tons)	Revenues (\$)
Aluminum Beverage	-120	-\$192,000
Glass Beverage	-5,600	\$0
PET Beverage	-1,200	-\$692,143
<b>Total:</b>	<b>-6,920</b>	<b>-\$884,143</b>

Conversely, Table 45 presents rough estimates of potential material gains (and estimated revenues) to MRFs under Universal Single Stream without a BB. The increased glass delivery is a net loss to the MRFs, while the increase in aluminum is a significant gain to the MRFs. The change for PET is not as great because not as much PET is currently being diverted through the current BB and PET has a lower commodity value than aluminum.

**TABLE 45. MATERIALS ESTIMATED TO BE DIVERTED TO MRFS UNDER SYSTEM 2 (UNIVERSAL SINGLE STREAM, WITH NO BOTTLE BILL)**

Gains to MRFs under USS Material	Volume (tons)	Processing Costs (\$)	Revenues (\$)	Net (\$)
Aluminum Beverage	1,620	-\$113,400	\$2,592,000	\$2,478,600
Glass Beverage	6,630	-\$464,100	\$0	-\$464,100
PET Beverage	1,270	-\$88,900	\$732,518	\$643,618
<b>Total:</b>	<b>9,520</b>	<b>-\$666,400</b>	<b>\$3,324,518</b>	<b>\$2,658,118</b>

**TABLE 46. COSTS OF THE CURRENT BOTTLE BILL AND ESTIMATED COSTS OF EXPANDED BOTTLE BILL**

Parties and Cost/Revenue Components	Cost Per Container (\$)	BOTTLE BILL		EXPANDED BOTTLE BILL	
		# Containers	Total Cost (\$)	# Containers	Total Cost (\$)
<b>State Administrative Costs</b>			<b>(\$21,500)</b>		<b>(\$150,000)</b>
<b>Distributors</b>					
Deposits collected	0.05	270,382,907	\$13,519,145	383,230,704	\$19,161,535
Deposits redeemed	0.05	241,948,783	(\$12,097,439)	324,966,302	(\$16,248,315)
Deposits collected, wine	0.15			9,846,154	\$1,476,923
Deposits redeemed, wine	0.15			7,384,616	(\$1,107,692)
Handling fees paid out					
Commingled	0.035	183,881,075	(\$6,435,838)	217,628,096	(\$7,616,983)
Sorted	0.04	58,067,708	(\$2,322,708)	117,184,360	(\$4,687,374)
Collection costs (third party & ow)	0.015	241,948,783	(\$3,629,232)	334,812,456	(\$6,026,624)
Materials revenue received					
Aluminum		146,174,028	\$3,750,899	153,765,729	\$5,564,228
Plastics		35,946,008	\$789,228	107,765,988	\$1,872,642
Glass		59,809,251	\$332,129	70,540,336	\$293,790
Liquor Glass				7,384,616	\$110,831
<b>Sub-Total, Distributors</b>			<b>(\$6,093,816)</b>		<b>(\$7,317,871)</b>
<b>Vermont Liquor Control</b>					
Deposits collected	0.150	3,745,035	\$561,755	3,745,035	\$561,755
Deposits paid out	0.150	2,860,458	(\$429,069)	2,860,458	(\$429,069)
Collection Cost	0.078	2,860,458	(\$223,116)	2,860,458	(\$223,116)
Handling fees paid out	0.035	2,860,458	(\$100,116)	2,860,458	(\$100,116)
Materials revenue received	0.000				
<b>Sub-Total, VLC</b>			<b>(\$190,545)</b>		<b>(\$190,545)</b>
<b>Retailers/Redemption Centers</b>					
RVM costs	0.034	24,194,878	(\$822,626)	48,744,945	(\$1,657,328)
Manual costs	0.038	217,753,905	(\$8,239,953)	283,605,972	(\$10,647,030)
Handling fees received	0.036	241,948,783	\$8,758,546	332,350,917	\$12,304,358
<b>Sub-Total, Retailers</b>			<b>(\$304,033)</b>		<b>\$0</b>
<b>Consumers</b>					
Deposit paid	0.05	270,382,907	(\$13,519,145)	383,230,704	(\$19,161,535)
Deposits received	0.05	241,948,783	\$12,097,439	324,966,302	\$16,248,315
Liquor deposits paid	0.15	3,745,035	(\$561,755)	13,591,189	(\$2,038,678)
Liquor deposits received	0.15	2,860,458	\$429,069	10,245,074	\$1,536,761
<b>Sub-Total, Consumers</b>			<b>(\$1,554,393)</b>		<b>(\$3,415,137)</b>
<b>Total :</b>			<b>(\$8,164,287)</b>		<b>(\$11,073,553)</b>
<b>Additional Cost to Consumers</b>					
Separate trips to redeem	0.014	244,809,241	(\$3,448,633)	335,211,375	(\$4,722,130)
<b>Total :</b>			<b>(\$11,612,920)</b>		<b>(\$15,795,683)</b>

(1) Under "Consumers", Special trips to redeem were counted for bottle redeemers that answered "yes" to the question "Is this a special trip to redeem bottles and cans, or are you combining it with another errand?" or no to the question "If you weren't returning containers today, would you have taken this trip?"

quality is very good. As such the bale price differential has been dropped to 5 cents per pound from 10 cents per pound to reflect the relatively high quality of the material produced at the Rutland and Chittenden MRF's.<sup>108</sup> In both cases the value of the glass represents glass FOB the glass beneficiation plant.