



MEMORANDUM

To: Wayne Gjerde, MPCA
From: Resa Dimino, NAPCOR
Re: Comments on *Recycling Refund System Cost Benefit Analysis*
Date: January 22, 2014

Thank you for providing NAPCOR with the opportunity to comment on the cost benefit analysis prepared for your agency by Reclay StewardEdge. We appreciate the agency's efforts to define a new and innovative beverage container refund system, and to fairly evaluate its costs. For the most part, the analysis is sound and represents a fair representation of the costs and benefits of such a system. What follows is a summary of the areas where NAPCOR suggests the agency refine or clarify its approach.

1. *Redemption Center Cost Assumptions:* It appears, from the narrative in the study, that the analysis assumes that the redemption centers will be completely manual. That is supported by the costs presented in Table 8, where the major expense is labor (though no detail is provided on the assumptions behind those labor costs). While the report acknowledges that reverse vending machines (RVMs) may be utilized, it does not account for any of the cost savings that would accrue from at least partially automating the redemption centers. Furthermore, the report includes a discussion of the Oregon Bottle Drop model, and some of the technological and customer service innovations it has operationalized, yet does not model the use of any of these new strategies in the envisioned Minnesota system. Reportedly, the Oregon system is operating at a cost of approximately \$.02 per container—nearly a 50 percent savings over what the study proposed. Based on experience and trends in other states, it is fair to assume that at least some, and perhaps most, of the redemption centers would operate more efficiently and cost-effectively than a the completely manual facilities envisioned in the current analysis. Developing a realistic assessment of redemption center costs is critical to the accuracy of the analysis.
2. *Mechanism for Reimbursing MRFs for Deposit Containers Handled:* The mechanism for reimbursing MRFs for the deposit value of the containers they handle (described on page 10) is not practical. Given the throughput of most Minnesota MRFs, it is unlikely that removing deposit containers by hand, and delivering those to a redemption center, will be feasible or cost-effective. The analysis should explore other mechanisms for ensuring that MRFs get the value of the deposit containers in their system, such as periodic audits to derive percentages of deposit containers present in the system.

3. *Impact on MRF revenues:* It would be helpful if the analysis clearly presented the material mix in a typical MRF ton now, and associated “basket of goods” revenue, and compared that to what that mix and revenue would be after the system envisioned was implemented. This would go a long way to providing transparency and answering some of the key questions raised by municipalities and MRF operators.
4. *Sorting and Baling Facilities:* The study appears to assume that no compaction or consolidation happens at the redemption center, and that all containers will need to be transported to another facility to be prepared for market. This is a flawed assumption that leads to an increase in the reported system costs. At \$200 per ton, the modeled costs are extremely high. The report notes that much of this cost is related to sorting plastic resins. However, the vast majority of plastic beverage containers are PET and could be separated as such at the redemption center level. With the addition of dairy products in the envisioned MN system, there will be greater amounts of HDPE than is seen in other states, however, it is unlikely that there will be large quantities of other resins. To develop an entire infrastructure to sort these materials out seems to be an over-engineered, and costly, solution. As noted above, it is likely that at least some redemption centers will utilize RVMs, which provide for compaction. If the Oregon Bottle Drop model is used, additional consolidation and market preparation can happen on the redemption center site. Furthermore, the proposed throughput of these facilities, reported at 3,800 tons per year, is extremely low. If they are needed, they should be larger and more efficient than what is described.
5. *Material Revenue Assumptions:* The material revenue assumptions for PET (both curbside and deposit) are not representative of the current marketplace, or average conditions. The time period captured (2010-2012) includes a period during which PET bale prices hit historic highs, but does not include a corresponding low period. NAPCOR recommends that a five year time period (2007-2012) be used for the revenue assumptions. That time period would capture both high and low market conditions.