

Comprehensive Operational Review of CRRRA
Summary of WtE Market Assessment

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SUMMARY

This document was constructed, and should be viewed, as an analysis of the operation of the CRRA, not as an examination, audit, or proposal for the Waste and/or Energy policies of the State of Connecticut.

The revenues generated from CRRA's various sources have been lower and both the Authority and this report project ongoing near term revenue shortfalls; of \$3.547M and \$9.188M respectively for FY2015 (where \$5.564M of the gap is due to a lower energy price being used in this report for FY2015). These projected revenue shortfalls can be substantially attributed to economic factors such as a drop in energy prices, increased competition (where Mid-CT has experienced a decrease in the number of contracting municipalities from 70 to 51), and a projected increase in capital replacement needs (\$13M for FY2015). It should be noted that the Authority could take advantage of its bonding authority to reduce the amount needed annually to fund its capital replacement needs.

It should also be noted that there are opportunities to consider that could set the Authority on a more financially viable path and benefit not just CRRA but also the solid waste and renewable energy markets in Connecticut. Although not inclusive, all stakeholders should focus on the following in an effort to mitigate the net projected revenue shortfalls:

- The development of new revenue sources.
- The capital replacement needs.
- A maximization of operational efficiencies .
- Possible change in public policy.
- The Authority's plans to leverage existing and future technologies.

REVENUE

Based on current and projected market conditions, CRRA will need to identify new and / or expanded sources of revenue to maintain a competitive position in the waste-to-energy (WTE) and municipal solid waste (MSW) market.

The following trends are most likely not expected to change for the better in the near-term:

- MSW Generation
 - MSW generation per capita is down considerably from pre-economic recession levels. While this trend is positive in terms of the state's sustainability goals, it has resulted in reduced revenue to the resource recovery facilities in the state.
- Electricity Prices
 - Depressed energy prices are mostly due to an oversupply of cheap natural gas in the Northeast region.
 - Energy prices are not expected to rise significantly in the near- to mid-term.
- Renewal Portfolio Standards (RPS) Requirements
 - Prices for Class II renewable energy credits in the Connecticut market are relatively low compared to Class I and Class III, and are not expected to rise in the near- to mid-term.
- Recyclables Market
 - Currently prices for most recyclable materials are at 25% to 50% of the high price over the past five years.

APPROACH TO BUDGETING

The Authority's current method for fiscal planning makes it dependent on attaining revenue to mitigate its projected budgetary shortfall.

CRRA's budgetary approach could position the Authority at a disadvantage against private WTE facilities in the state.

- Budgeting Approach
 - CRRA's bottom-up budgeting approach — as opposed to a top-down approach used by private WTE facilities — could hinder the Authority's ability to be flexible in its efforts to balance costs and revenues.
- Shortfall Mitigation
 - According to CRRA's forecast for FY2014 – FY2018, a budgetary shortfall of \$3.547 million is expected in 2015. To mitigate the budgetary gap, the forecast identifies the following five overall options:
 1. Attaining a higher price for CRRA's electricity price sold in the market
 2. Increasing tipping fee revenues
 3. Other revenues
 4. Decreasing operational expenditures
 5. Other initiatives (sale of land and property)

OPTIONS

CRRA could continue to explore options similar to its competitors, such as anaerobic digestion or composting, to mitigate the declines in revenue that the Authority is currently experiencing.

The strategic options private WTE companies are putting into place have two underlying similarities: the level of initiative and state support.

- Market Trends
 - Covanta Holding Corporation and Wheelabrator Technologies have identified similar negative revenue drivers (i.e., drop in energy prices, increased competition).
- Identified Methods to Generate Profits
 - Covanta representatives foresee an increase in organic waste recovery, and recently announced plans for an anaerobic digester facility in Bristol.
 - The company feels that the State of Connecticut was in full support of its plan, which added to its willingness to deploy a new technology.
 - Wheelabrator is in the process of devising a bilateral contract, that will sell power from its WTE plants directly to the towns that supply MSW to the facility.
 - Wheelabrator representatives are working with the CT DEEP and have expressed their optimism that the new agreement structure could create pricing that will improve the current revenue position of its facilities.

OPERATION EFFICIENCIES

CRRA could consider evaluating non-core activities that would allow the Authority to meet the operational efficiencies of its competitors.

The ability to leverage an economy of scale, in addition to maintaining an economical organizational structure, is significant to achieve the maximum level of operational efficiency.

- Large Purchase Discounts
 - Private WTE facilities in Connecticut can benefit from large purchase discounts of materials such as lime and urea, thereby reducing their cost of goods sold.
- Capacity Coordination
 - The size of the parent companies of private WTE facilities could allow them to coordinate between facilities outside of the state to ensure their capacity for waste is met in Connecticut.
- Operational Efficiencies
 - Additional economy of scale factors could be attributed to lowering overhead expenditures as well. Private WTE facilities can leverage their ability to coordinate administrative tasks (i.e., human resources, finance, public relations, etc.) across a region such as the Northeast, as opposed to just one organization as is the case with CRRA.
 - It is estimated that CRRA employs 17.865 individuals to administer non-direct labor functions for the Authority's operations (not including the trash museum or landfills). In comparison, Wheelabrator employs nine administrative staff to support the operations of an equally sized WTE facility (Bridgeport) and two transfer stations.

MARKET TRENDS

CRRA's ability to meet and address current market trends is vital to determining the likelihood that the Authority will remain competitive in the waste market over the next ten years.

CRRA could consider the following options to increase its competitiveness in the near- to long-term; however, a quantitative analysis would need to be completed.

- Municipal Engagement
 - Public sentiment of CRRA has been either neutral or negative according to discussions with municipalities. CRRA could strengthen its position in the community through the enhanced promotion of recycling and educational programs.
- Predictable Municipal Service Agreements (MSAs)
 - Municipalities have indicated that long-term MSAs whose prices can be effectively forecasted year-over-year in municipal budgets is a significant contributing factor in choosing which WTE company with which to contract.
- Recycling Program
 - CRRA could consider a recycling program similar to its competitors where the competitor shares with the municipalities a percentage of the profit. CRRA currently offers up to a \$10 per ton rebate to municipalities tip fees in all but one of the MSAs available. In theory, this establishes an incentive ceiling to municipalities.
- Lowered Transportation Costs
 - CRRA could further analyze enacting a contractual structure between the Authority and other WTE facilities that utilizes transfer station(s) closest to each facility. This could aid facilities in meeting their capacity needs in addition to lowering transportation costs.

ABSENCE OF MID-CONN FACILITY

The absence of CRRA's mid-Connecticut WTE facility in its current form could have a significant impact on Connecticut's management of solid waste.

Connecticut may be in a position where it must weigh the benefits of CRRA as a policy tool versus the risk of no longer having a quasi-governmental entity that acts as a market leader (i.e., sets market rates, drives strategic deployments of technology).

- Economic Benefits
 - Connecticut could lose the economic benefits it gains in the forms of employment, and indirect and induced revenue derived from the WTE facility, and supporting MSW infrastructure.
- Oversupply in MSW
 - The Connecticut market could be saturated with an estimated 710,000 tons of MSW.
 - Out of state disposal is currently on the incline, and could increase significantly.
 - Disposal out of state would most likely be in the form of landfilling due to its more economical pricing.
 - This could run contrary to the priorities established by the state in its hierarchy of solid waste management.
 - Municipal tipping fees will most likely increase due to an oversupply of MSW and a decrease in competition to maintain levels of capacity at facilities.

Comprehensive Operational Review of CRRA – Executive Summary

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