



THE PROBLEM The full cost of processing waste within a manufacturing or distribution facility is often under calculated with the focus on reducing cost through efficiency often limited to front end processing. Once an item becomes waste, it is often discarded without full evaluation of the process and the cost to prepare and transport the waste to the container that will be picked up by the contracted waste hauler. Often, only the cost of the waste hauler is considered when accounting for waste processing within a manufacturing or distribution facility.

THE PARTNERS The city of Phoenix, Generated Material Recovery, Republic Services and Young's Marketplace

THE SERVICE To create a Resource Valuation Analysis (RVA) Tool, an open source tool that can be used by ASU Global Sustainability Solutions Services and other waste stream management and consulting companies to advise industrial clients in better understanding the full cost of their waste streams. An RVA assessment will provide management at a manufacturing or distribution facility the ability to more accurately compare costs when they are evaluating alternative processing options for increasing diversion and managing waste and by product streams in the most profitable and sustainable manner.

THE SOLUTION On April 2, 2015 representatives from ASU Global Solutions initiated a pilot RVA Assessment on Young's Marketplace distribution waste stream to determine the total cost of the waste stream output of Young's distribution process. Over the course of multiple site visits, interviews were conducted, key metrics were recorded and were supplemented through subsequent correspondence and there was an observation of the warehouse end of shift clean up process. The information was then consolidated and input into the RVA tool and summaries of the results and recommendations were provided to the client and strategic partners. Initial RVA findings indicate labor is by far the largest expense and represents the greatest opportunity for savings. Additionally, there appears to be an opportunity for improvement related to the returns, categorized under Landfill 2. Diverting the returns from the landfill could significantly reduce the CO₂e output and the environmental impact of the waste stream. If the materials were sorted from the beginning it could help expedite the disposal process while reducing the amount of recyclables in the landfill bin.

THE OUTLOOK The tool has demonstrated the capacity of providing a perspective on the full cost of the waste stream within a distribution facility. It also demonstrated the ability to identify opportunities to mitigate the associated expenses. Additionally, application of the RVA assessment as a service demonstrated the potential to help waste management consultants successfully assess industrial waste streams and support innovative clients who are looking for better ways to gain a greater understanding of the total cost of waste stream outputs and reduce environmental impacts.

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