

**New York State
Environmental Investment Program (EIP)
Capital Project Summary**

Roth Industries, Inc.

Project Background

Roth, a German business founded in 1947, established a U.S. presence in Chicago, IL in 1997. The company is known for its Double-Wall Oil Storage Tanks, Radiant and Plumbing Systems, as well as its Solar Systems. In 2006, a decision to increase market share in North America and a need to improve its distribution strategy led Roth to build a production facility in Watertown, NY to manufacture blow-molded plastic oil storage tanks in the U.S. Roth's strategic plan focuses on environmentally-friendly products, as well as introduce heat pumps and innovative Geosolar systems in 2009 and 2010, respectively. The business applied to the EIP for funds to help implement plastics and water recycling systems as part of the Watertown production line.

Project Description

During Roth's manufacturing process, a significant amount of scrap cut from the top and the bottom of each container would be created and need to be managed. The business preferred to shred, grind and store the valuable material for reuse in production, rather than pay to have it trucked to landfill for disposal. EIP funds would be used to help offset the costs for a plastics shredding and conveying system for recovering and reusing the waste plastic, as well as an innovative and efficient water recovery and reuse system that included a "winter cooler" component that would utilize colder, outdoor temperatures to help cool process water without putting in energy.

Within two years, Roth would reduce scrap plastic generation by at least 297 tons/year and save \$388,800 on raw material and energy costs, and \$20,790 on avoided waste management. The water recovery and reuse system, including the winter cooler, would enable the reuse of process water at a rate of at least 113.4 million gallons/year and save the company another \$135,000 on avoided treatment at the City-run publicly owned treatment works (POTW). The Winter Cooler would further reduce energy costs by \$17,544/year.

Project Results

The equipment proved quite successful for Roth and enabled the business to process and reuse 555 tons of plastic annually. Part of the reason for the significant increase in recycled plastic was Roth's introduction of new product lines that could also take advantage of the grinder system. The raw material cost savings and avoided disposal cost for those materials totaled \$1,031,444/year. More than 124 million gallons of water were processed and reused during the year, saving \$274,747 on water purchases and \$278,477 on treatment. In addition, after discounting the cost to operate the winter chiller, Roth achieved \$8,017 in energy cost savings by using the outdoor air to cool process water. The total annual dollar benefit from this investment was \$1,592,684.

Contractor: Jefferson County IDA
County: Jefferson County
ESD Region: North Country
ESD Contact: 518/292-5340

NYS EIP Investment: \$238,890
Contractor Match: \$328,025
Total: \$566,915
Completion Date: Sept. 2008