

**New York State
Environmental Investment Program
Capital Project Summary**

Triad Recycling and Energy Corp.

Project Background

Triad Recycling and Energy Corp. was formed in 2010 by three partners who had previously worked together to recycle by-products from DuPont's Corian production lines. The partners originally began researching roofing and construction and demolition (C&D) materials going to landfill and identified a need in NY State to recycle these items. This led to the creation of Triad Recycling and Energy Corp. The company operates in a 15,000 sq ft warehouse on a redeveloped brownfield site in Tonawanda, NY. Triad recycles materials brought to them by LEED projects, contractors and roofers. The company is one of a few that has successfully obtained a Beneficial Use Determination (BUD) from NY DEC for the use of ground asphalt roofing shingles as feedstock in the off-site manufacture of asphalt pavement. At the time the project was proposed, the supply of C&D materials was quickly outpacing Triad's ability to process them. They were regularly turning away loads and needed to improve the efficiency of their process. Much of the sorting was done by hand, aided by the operation of a small front end loader. Materials were then sorted into appropriate carts and Gaylord boxes and sent to market. The lack of baling capacity limited the market value of Triad's outgoing commodities. In addition, Triad's ability to feed its 50 ton-per-hour, state-of-the-art shingle grinder was limited by the slow, bottle-necked processing line.

For this project, Triad proposed to improve its efficiency by investing in various pieces of equipment which, combined, would result in a more sophisticated processing system.

Project Description

As a result of this improvement project, C&D material and roofing shingles are now dumped onto the tip floor where the largest and most obvious items (dimensional lumber, appliances, etc.) are removed. Skid steer loaders and an excavator with a grapple then sort and transport materials into individual accumulation areas or onto a new conveyor sorting line. The excavator is the "central hub" of the tipping floor, spreading, shaking and reloading material. At the back of the system, a horizontal baler is now used for materials like OCC, siding and aluminum and a vertical baler is used for rigid plastics and shrink wrap plastics. Triad also invested in a screener for the asphalt shingle grinder and a shredder dedicated to processing gypsum wallboard.

Project Results

By the end of the project, Triad was processing 10,612 additional tons per year of C&D, generating roughly \$257,000 per year in additional sales revenue and \$1,115,400 in additional tip fee revenue. This saved local C&D generators \$163,730 per year in avoided tip fees. Triad also created 3 new jobs. Because of its improved ability to generate larger quantities of materials that meet end-user specifications, Triad has been able to further develop markets for materials that regularly come through their system. For example, the company has developed markets for its vinyl siding and ground gypsum wallboard. Triad is one of a handful of C&D recyclers serving NYS and continues to grow.

Contractor:	Erie County IDA	NYS EIP Investment:	\$ 90,000
County:	Erie	Contractor Match:	\$ 203,784
ESD Region:	Western New York	Total:	\$ 293,784
ESD Contact:	518/292-5340	Completion Date:	June, 2013