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## CR & R invests \$50 million turning waste into energy

By [Paul Bandong](#) on May 28, 2017



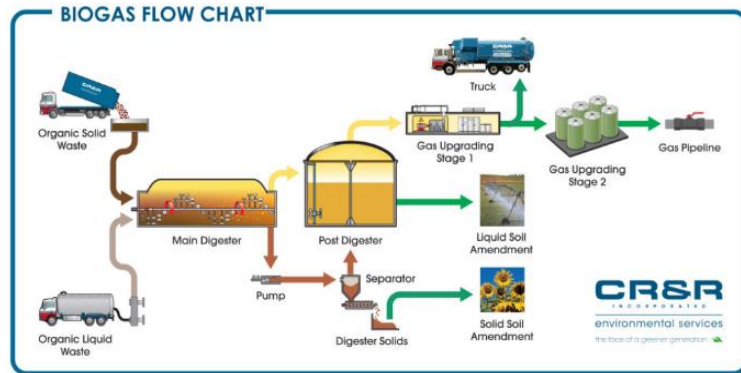
In the “Back to the Future” film franchise trilogy, Dr. Emmet Brown replaced the plutonium-based nuclear generator in the De Lorean time machine with a “Mr. Fusion” generator from the future that uses garbage as fuel. CR & R Environmental Services has a similar dream for the future – turning waste into energy through an advanced technology called anaerobic digestion. Anaerobic digestion produces “biogas” from organic waste in a zero waste, 100 percent renewable process.

At a recent Economic Workforce Development Committee luncheon hosted by the Lake Elsinore Chamber of Commerce at the Diamond Club at Storm Stadium, Alex Braicovich, senior regional vice president at CR & R, shared the vision, the process and the progress of their initiative of “Turning Today’s Waste into Tomorrow’s Energy.”

CR & R, a full service, privately held, integrated waste management company based in Orange County, California, was founded in 1963 with one truck in a waste-hauling operation and later added two recycling trucks. Today, the company has grown to include 50 municipal contracts in Southern California and southwestern United States. They have 12 processing contracts and utilize 1,000 trucks every day with 1,600 employees that serve 2.5 million residential customers and 50,000 commercial customers. They have two solid waste facilities, five transfer stations and two landfills – a large one in Yuma, Arizona, and a smaller one serving Catalina Island.

The company has always been on the leading edge, including having the first recycling buy-back center in Orange County, the first three-can, fully automated curbside collection system, the first network of Material Recovery Facilities and one of the first bio-filtration systems.

CR & R’s new renewable energy project is one of the largest and most advanced anaerobic digestion facilities in North America, converting green and food wastes into renewable natural gas and organic soil amendments. The process also utilizes recycled water from the local waste water treatment plant. The renewable natural gas is a “drop-in” replacement transportation fuel for compressed natural gas vehicles, but has lower carbon intensity.



Courtesy image

The dynamic 21-day process mimics Mother Nature using microorganisms to break down biodegradable materials – food waste, green waste, fats, oils and greases – but accelerating the process in a closed oxygen-free, fully-automated system. The process produces an extremely clean biogas which can be combusted to generate electricity or processed into renewable natural gas. The plant can process 335,000 tons of solids waste per year, creating 4 million gallons of natural gas as well as 250,000 tons of separated digestate that can be used as agronomically desirable soil amendments.

“We can use about 3 million gallons of the fuel in our fleet, leaving an extra million gallons we can resell to cities,” Braicovich said.

CR & R is the first company to contract with SoCal Gas and has installed 1.3 miles of 8-inch gas pipeline to connect with them.

The four-phase \$100 million project, which provides the maximum flexibility, is being built on CR & R’s existing 50-acre materials recovery and transfer station in Perris and will serve communities in southwest Riverside County. The high solids anaerobic digestion allows for nearly 100 percent recycling and generates a carbon negative transportation fuel and valuable organic soil amendments.

The program keeps organic wastes out of landfills where their natural degradation produces methane gas, 84 times more damaging to the atmosphere than carbon dioxide. The process is fully automated with zero untreated emissions, the highest energy conversion rates in the industry and runs 24/7 every day of the year.

According to the company, compared with landfilling and composting alternatives, anaerobic digestion provides 100 percent energy recovery, 100 percent emissions capture and 100 percent nutrient recovery.

California Gov. Jerry Brown recently signed two landmark pieces of legislation drastically reducing the amount of organic waste ending up in landfills.

Assembly Bill 1826 requires businesses and multi-family complexes to separate their food scraps and yard trimmings for composting or anaerobic digestion.

Assembly Bill 1594 eliminates a current loophole in state law that allows yard trimmings and other green waste that are used as land cover to qualify as recycling.

“We also believe in convenience, requiring as little change as possible to the customer,” Braicovich said. “The company is providing 1.9 gallon pails to customers to collect food wastes in the kitchen.” He likened the change to the beginning of the recycling movement 30 years ago.

The company has partnered with key technology and construction vendors with plans for potential future plants. Perhaps like the “Back to the Future” films, it is a glimpse into the future where garbage fuels transportation and energy needs.

For more information, visit [www.crrwasteservices.com](http://www.crrwasteservices.com).