

## Sacramento, California: Food Waste Digester Expansion

In July, CleanWorld completed a major expansion of its high solids Sacramento Biodigester, located at the city's South Area Transfer Station. The facility added two steel tanks — 300,000 gallons and 600,000 gallons — quadrupling processing capacity from 25 tons to 100 tons/day of primarily food waste streams. The tanks were supplied by Pacific Tank Solutions. CleanWorld CEO Michele Wong says the firm anticipates the expanded system will be operating at full capacity by year's end. A rapidly increasing flow of organic waste is anticipated due to the State of California's recent implementation of Assembly Bill 1826, which requires commercial businesses to start recycling organics. "With a higher level of diversion required, more people are looking for outlets for their organic waste," Wong notes. Along with organics collected by the City of Sacramento Waste Authority, the facility also processes material from nearby cities and county agencies, such as the Western Placer (County) Waste Management Authority. Wong says the facility also recently began servicing two large grocery chains.

The Sacramento biodigester officially opened in January 2013, but all components of the operation didn't come on line until five months later. CleanWorld operates the digester under a 20-year lease with the county. Atlas Disposal, a Sacramento-based waste hauler, installed a BioCNG fueling station adjacent to the digester to utilize the renewable compressed natural gas (CNG) for its fleet. A portion of the biogas — about 300 scfm/day (about 1,400 diesel gallon equivalents) — is being converted to fuel 30 trucks in Atlas' growing fleet with CNG engines. CleanWorld purchased a BioCNG 100 biogas conditioning system that also compresses the gas to send to the Atlas fueling station. The BioCNG system includes hydrogen sulfide, VOC/siloxane and carbon dioxide removal, and chilling. Atlas' fueling station stores conditioned biogas in two low-pressure 250 psi vessels, before it is compressed to 4,500 psi for fueling. Atlas is adding more CNG trucks to its fleet as existing ones are decommissioned due to age, according to Sean Moen, general manager of Atlas ReFuel. "Our drivers like it because (the CNG-powered trucks) are very quiet. And, it's been great for reducing our carbon footprint." Atlas has formed a subsidiary to sell excess CNG to about a dozen other companies with CNG vehicle fleets, including street-sweeping companies, taxi and shuttle operators and security firms.