

THE GREENEST COMPANY IN MORRIS COUNTY IS ACTUALLY BLUE



Each week diesel-powered refuse trucks can be found on virtually every street in the United States. And thousands are on the road in New Jersey. But change is in the air for one refuse hauler. Blue Diamond Disposal is demonstrating its commitment to the environment with the adoption of compressed natural gas (CNG) refuse trucks and building the first CNG filling station in Morris County, N.J.

The Difficult Landscape

After 12 years of continued growth, Blue Diamond was faced with an aging fleet and increasing diesel fuel prices; management began to consider natural gas as an alternative transportation fuel.

John Shortino Jr., president of Blue Diamond, pointed out that the price of diesel fuel had increased 50 percent from previous levels. And in the first six months of 2011, fuel costs represented a large percentage of the company's operating costs.

Equally important, Blue Diamond's aging fleet was an obstacle to achieving carbon emission reduction goals. Even the company's newer model diesel trucks made it increasingly difficult to comply with Environmental Protection Agency emissions standards as diesel particulate filters (DPFs) and traps consistently clogged and fouled. On any given week, two trucks were out of commission, resulting in a loss of revenue.

Now was the time for Blue Diamond to move forward with CNG.

Meeting the Challenge

In 2010, the Blue Diamond management team met with members of Clean Energy Fuels Corporation and New Jersey Natural Gas (NJNG) to assess the cost benefits of CNG and a CNG refueling infrastructure. "With abundant supplies of natural gas available at competitive prices, CNG vehicles offered a clear economic and environmental solution for Blue Diamond," Shortino said.

Blue Diamond tested the waters with a natural gas vehicle and a temporary Hurricane CNG compressor provided by Clean Energy Fuels. This pilot program resulted in excellent feedback from truck operators, who cited significant power handling, decreased emissions exhaust and lower repair and maintenance costs. "Based on the aging fleet, escalating fuel costs and positive results of the pilot program, we were convinced that CNG was the future of the refuse industry, making the capital investment in CNG-powered trucks worthwhile," Shortino noted. "A cost analysis reinforced our decision and, moreover, projected cost savings were significant enough to warrant building the infrastructure for a natural gas fueling station."

Refuse Industry CNG Case Study:
Blue Diamond Disposal

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– John Shortino Jr.
President
Blue Diamond Disposal

Blue Diamond Disposal:

- located in Mount Arlington, N.J.
- 100 trucks and 5,000 containers
- serves more than 200,000 residential and commercial customers



Implementation: Grants Help Offset Costs

Funding opportunities from the U.S. Department of Energy (DOE) and administered by New Jersey Clean Cities Coalition (NJCCC) provided Blue Diamond with a \$500,000 grant to cover the incremental costs associated with purchasing 10 CNG refuse trucks rather than replacing them with diesel-powered vehicles. (The funding is part of a \$15 million grant competitively awarded to NJCCC by the DOE, using American Recovery and Reinvestment Act funds.) Blue Diamond has also committed to the purchase of an additional seven CNG trucks as part of its long-term sustainability strategy to convert its Morris County fleet to CNG-powered vehicles.

Blue Diamond then contacted NJNG to assess the natural gas infrastructure requirements needed to support a large-scale CNG refueling station. Blue Diamond awarded Clean Energy Fuels the contract to build, operate and maintain Morris County's first fueling station, while NJNG provides the distribution infrastructure to support the delivery of natural gas. NJNG provided a four-inch natural gas service line from the main distribution line to the CNG fueling station.

The new fueling facility is equipped with time-fill posts and designed to include future expansion of public access and fast-fill dispensers. "We greatly value our relationship with NJNG. They were instrumental in helping us successfully navigate through the permit process in an expeditious manner," Shortino stressed.

Benefits Abound

"Our decision to adopt natural gas transportation solutions will generate a host of financial advantages for Blue Diamond, including the immediate reduction in fuel costs - all while positively benefitting the environment and decreasing our reliance on foreign resources," Shortino said. Overall, the company estimates it will realize significant cost savings while helping to keep haul rates stable.

The domestic supply outlook and price favorability of natural gas makes it an attractive, predictable option for Blue Diamond. Another encouraging factor ... Blue Diamond can get fixed-price, multi-year natural gas fueling contracts from NJNG or third-party suppliers.

Blue Diamond is now better equipped to meet the new trend in municipal bids, which specifies a preference to companies that operate a "green fleet." This advantage helps the company solidify existing contracts and gain access to new business.

"The greenest company in Morris County is actually blue ... Blue Diamond," Shortino emphasized.

Natural gas engines also run more cleanly than diesel engines, emitting less particulate matter and harmful emissions into the environment. Gone are the lingering odor and distinct clatter of the diesel engine. CNG vehicles have lower operating and maintenance costs, with virtually no carbon build up, generating significant vehicle life-cycle savings. These are big advantages for natural gas as refuse trucks often operate on residential streets during early morning hours.

The Future

CNG is a part of Blue Diamond's long-term sustainability strategy and the company intends to continuously expand its fleet. By mid-year 2012, Blue Diamond hopes that CNG vehicles represent upwards of 50 percent of its Morris County fleet. And the CNG fueling station will support the company's transition of 100 percent of its diesel-powered refuse trucks to clean burning natural gas power over the long term.



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