

# Midwest Region Alternative Fuels Project



KS-KCKPS

Metropolitan Energy Center

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Kansas City Regional Clean Cities

## Project Profile: Kansas City Kansas Public Schools



Kansas City Kansas Public Schools (KCKPS) received 47 new compressed natural gas (CNG) school buses in spring 2011. This not only is the biggest CNG deployment to date by a Midwestern school district, but the project engendered substantial interest in CNG development in both Kansas and Missouri by fleets, CNG vendors and municipal government.

KCKPS's bus fleet has approximately 90 full-size buses and 25 mini buses. The 47 replacement buses were Thomas Built Saf-T-Liner transit-style buses with a CNG engine. Four mini buses were also replaced with new Thomas Built hybrid-electric buses. During the summer months, with fewer students to transport, KCKPS is able to run alternative fuel buses almost exclusively, saving even more on fuel than originally projected.



The CNG fueling system is used exclusively by the buses and was designed as a time-fill system with no storage. It can fill up to 70 school buses simultaneously overnight, leaving KCKPS room for expansion of its CNG fleet. The gas compression is high enough that during the day, when most of the buses are out, a single vehicle hooked up to a single post can be filled as quickly as at a fast-fill station, giving KCKPS some flexibility to convert a few service vehicles to CNG as well. They have opted to convert one so far, a mobile CNG refueling unit mounted on a pickup truck.

### **Benefits**

Over the life of these buses, they are expected to displace nearly half a million gallons of diesel and gasoline, saving millions of dollars on fuel costs. With route planning, KCKPS can replace diesel buses on high-mileage routes with alternative fuel buses, optimizing the investments for better future performance.

### **Funding**

KCKPS received funding from the Midwest Region Alternative Fuels Project, and its vendors passed through tax credits from the bus purchase and fueling infrastructure installation.

**CNG stations: 1**

**CNG vehicles: 48**

**HEV vehicles: 4**

**Gallons of gasoline displaced:  
24,000 / yr**

**Total project cost: \$8.4 mil**

**Federal funds: \$3.6 mil**



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