



## MTA Press Releases

[Select Language](#) | ▼

Press Release

August 27, 2009

[NYC Transit](#)

IMMEDIATE

### MTA New York City Transit Evaluates Turbine Power for the Bus of (Near) Future

The first example of a new breed of bus is currently running in service for MTA New York City Transit. The turbine-powered DesignLine bus is a low-floor, hybrid-electric vehicle that is the first of an eight-bus order set for a 90-day evaluation. This small bus order is part of the agency's ongoing effort to examine new technology that will help us reduce emissions and provide more economical and environmentally friendly service. The buses are manufactured by DesignLine International USA in Charlotte, North Carolina.

The key feature of this new bus is a diesel turbine engine, replacing the diesel piston engine that powers the majority of buses in NYC Transit's 4,600 bus fleet. The turbine produces AC power which in turn charges the battery which, in turn, powers the motor that drives the wheels. In addition, like the rest of the hybrid fleet, the new bus has regenerative braking, which recharges the batteries each time the bus operator makes a brake application. This energy-saving system is similar to the braking systems on our New Technology subway trains.

"The bus is revolutionary," said Joseph J. Smith, Senior Vice President, Department of Buses. "It has no starter, no transmission, no water pump and no engine radiator, which should help us significantly reduce our maintenance costs," added Smith, who noted that the DesignLine is the only bus in NYC Transit's fleet that meets the EPA's 2010 emissions standards without the need for exhaust after treatment.

Other features include an efficient and long-lasting interior LED lighting system, a contactless sensor system for air assist rear exit doors, a flip-out ramp for wheelchairs by the front entrance and disc brakes at all wheels.

These buses are anticipated to have significantly reduced maintenance costs, and include a 12-year warranty on the turbine engine and lithium-ion battery pack, which eliminates the need for midlife replacement. They also do not require oil changes. Customers will benefit from the low-noise characteristics of the bus, which is much quieter than a standard diesel bus.

A similar bus which was 35 feet long was successfully operated in Manhattan and Queens for a 30-day period back in the fall of 2007. This current evaluation is the second-phase test of a greater number of buses, built to NYC Transit specifications. Structural testing is currently underway as part of the New Bus Qualification program as well as in-service testing. Upon completion of this test period, NYC Transit will make recommendations to the manufacturer as to what features we would like to see improved or modified. The base order for these buses is 30 with an option to purchase 60 additional buses, if test results are positive.

The buses have a capacity of either 35 or 37 seats, depending on the configuration, with 30 standees. They will operate on some cross-town routes, especially the M42, during the evaluation period.