



A Billion Miles on Alternative Fuels

An Overview of LA Metro's CNG and Alternative Fuel Programs

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Los Angeles 1975



1980-2010 – Los Angeles Confronts the Emissions Challenge



- Aggressive Emissions Regulations enacted since 1980:
 - 1993: LA Metro adopts “Alternative Fuel Initiative” (AFI)
 - 2000: EPA “Settlement” with Diesel Engine Manufacturers
 - 2003: AQMD adopts “Fleet Rules”
 - 2006: CARB Adopts Zero Emission Bus (ZEB) Rules (after 2012)
 - 2008: AB32 – Establish Long Term GHG Goals (TBD)
 - 2011: On-going Metro Goal: Cleanest Possible Transit Fleet

Los Angeles Metro
Bus Fleet Technology Development
Alternative Fuel Experience



Early Advanced Technology Program



Due in part to poor regional air quality, lack of rail system, Metro's bus fleet has a long history of exploring ways to use new technology to improve operating efficiency or to reduce emissions.

- 1970-73: LA Metro and UMTA ran this "Steam Bus" Demonstration Project. The diesel locomotive engine was developed by Leer Corp.
- 1990's: Methanol/Ethanol fueled buses
- 1995: Start of CNG era

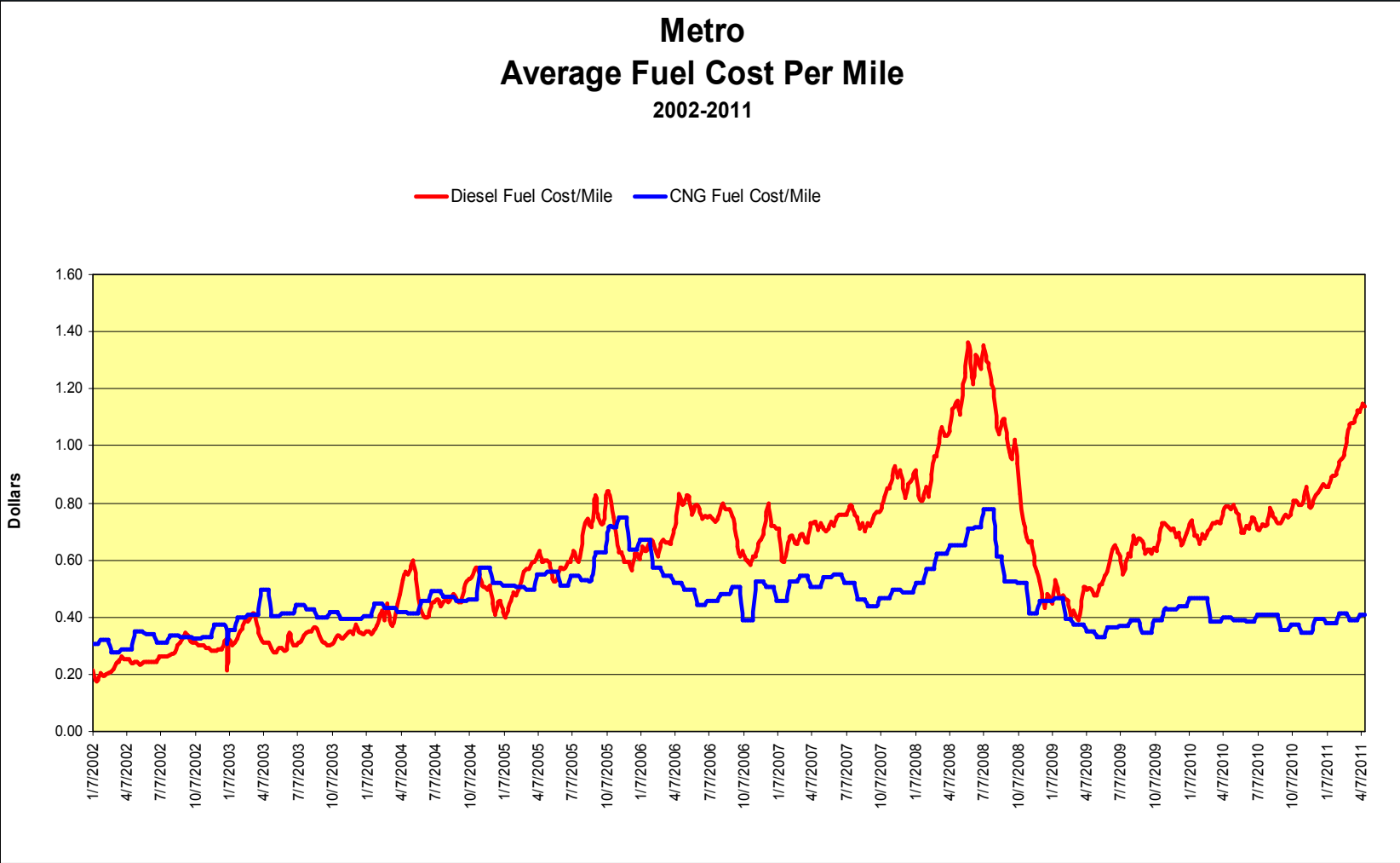
Metro Bus Fleet Today

- Metro operates one of the “Cleanest” transit fleets in the world today.
- Nearly 100% of our daily bus operation uses CNG buses
- We retired our last diesel bus in January 2011
- We have run over 1 billion miles on CNG to date, and nearly 100 million on methanol/ethanol

Our bus fleet serves one of North America’s largest and most heavily congested urban areas, with over 10 million residents in LA County and a service area of almost 1,500 sq. miles.



CNG and Diesel Fuel Prices Since 2002-2011



Los Angeles Today



Metro Bus Fleet Tomorrow

Future Bus Fleet Technology Plans:

- Currently procuring 700 CNG buses that are expected to exceed all emission requirements (incl. anticipated 2013 EPA and CARB regulations)
- Procurement also underway for up to 30 ZEB/SLEB
- Continue looking at “Next Generation” technologies, including anticipated CNG engine technologies that could help reduce NOX and PM 75% below 2010 levels!



An aerial night photograph of Los Angeles, California. The city is densely packed with lights, and the downtown skyline is visible in the distance. A major highway in the foreground shows long-exposure light trails from traffic, curving through the city. The sky is dark, and the overall scene is illuminated by the warm glow of city lights.

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