

# **Chicago Transit Authority Presentation on Alternative Fuels**

April 20<sup>th</sup>, 2009

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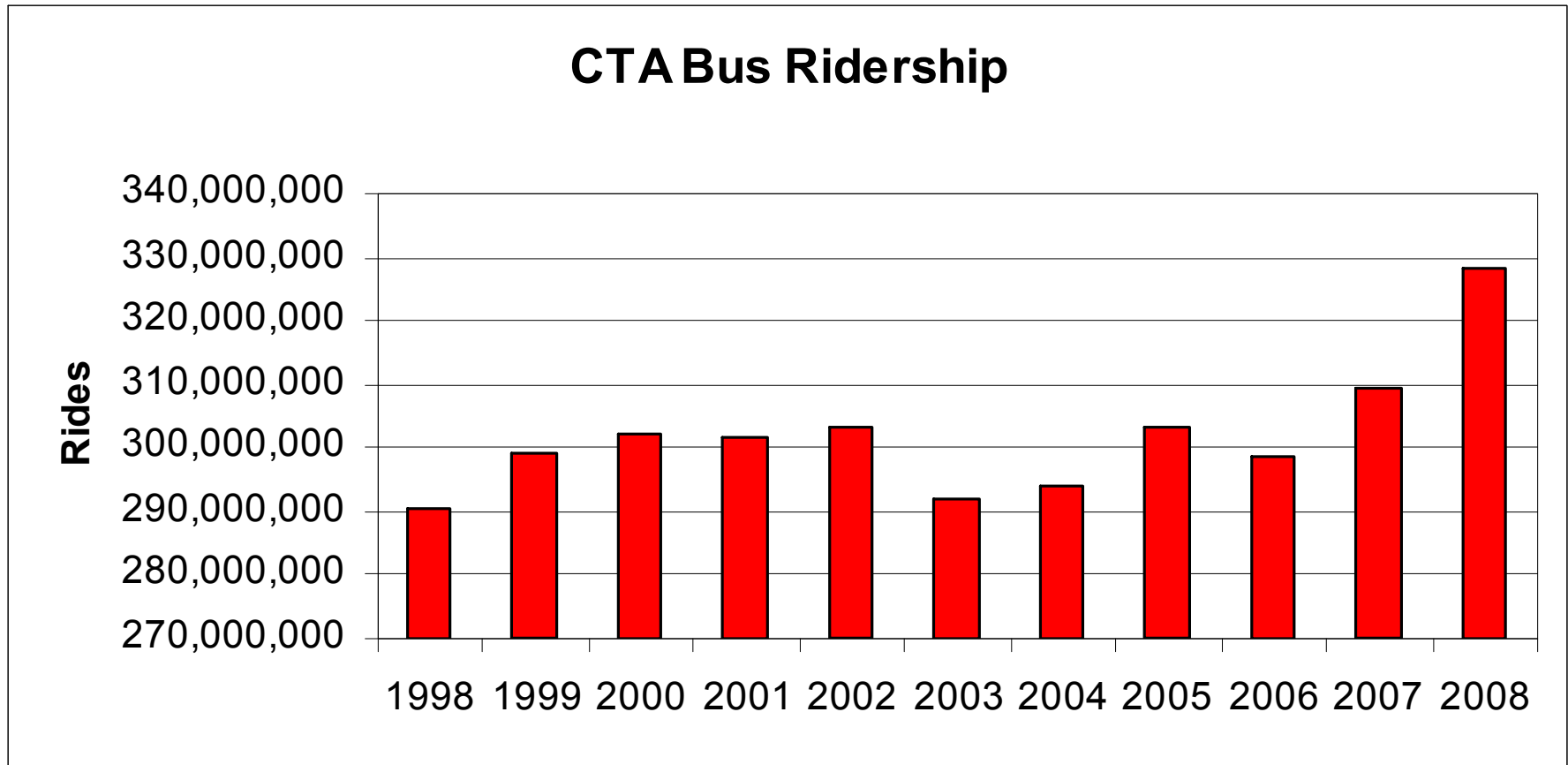
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# CTA At a Glance

- Chicago Transit Authority is an independent governmental agency created by state legislation. CTA began operating on Oct. 1, 1947.
- 2009 Operating budget is \$1.4 billion, 2009 Capital budget is \$310.9 million
- CTA provides 1.68 million riders per average weekday, 1.04 million on buses and provided 328.2 million rides on buses in 2008
- The CTA bus system travels approximately 220,000 miles per average weekday



# CTA Bus Ridership Trends



# CTA Active Fleet Characteristics

**As of April, 2009 CTA will have 2024 buses in the fleet:**

- 1030-2006 40 ft New Flyer Buses
- 20-2006 40 ft Hybrid New Flyer Buses
- 150-2008 60 ft Hybrid New Flyer Buses
- 45-2006 30 ft Optima Buses
- 480-2000 40 ft NOVA Buses
- 299-1995 40 ft Flexible Buses



## Past “Green” Fleet



The “Queen Mary” Electric trolley bus

The 1958 Flexible propane powered bus



# CTA move to clean fuel

- From the 1950's through the 1960's, CTA had the country's largest fleet of Propane powered vehicles.
- The CTA operated electric trolley buses until the early 1970's
- Since 1998, CTA tested 4 types of cleaner burning fuel
  - Bio Diesel (1998)
  - Fuel Cells (1998-2000)
  - Ethanol/ Diesel mixture (1999)
  - CNG (non-revenue vehicles, present)
  - Clean Diesel (present)
- After extensive testing, CTA decided that the Clean Diesel Hybrid was the economical solution for the future and is currently using it throughout the fleet



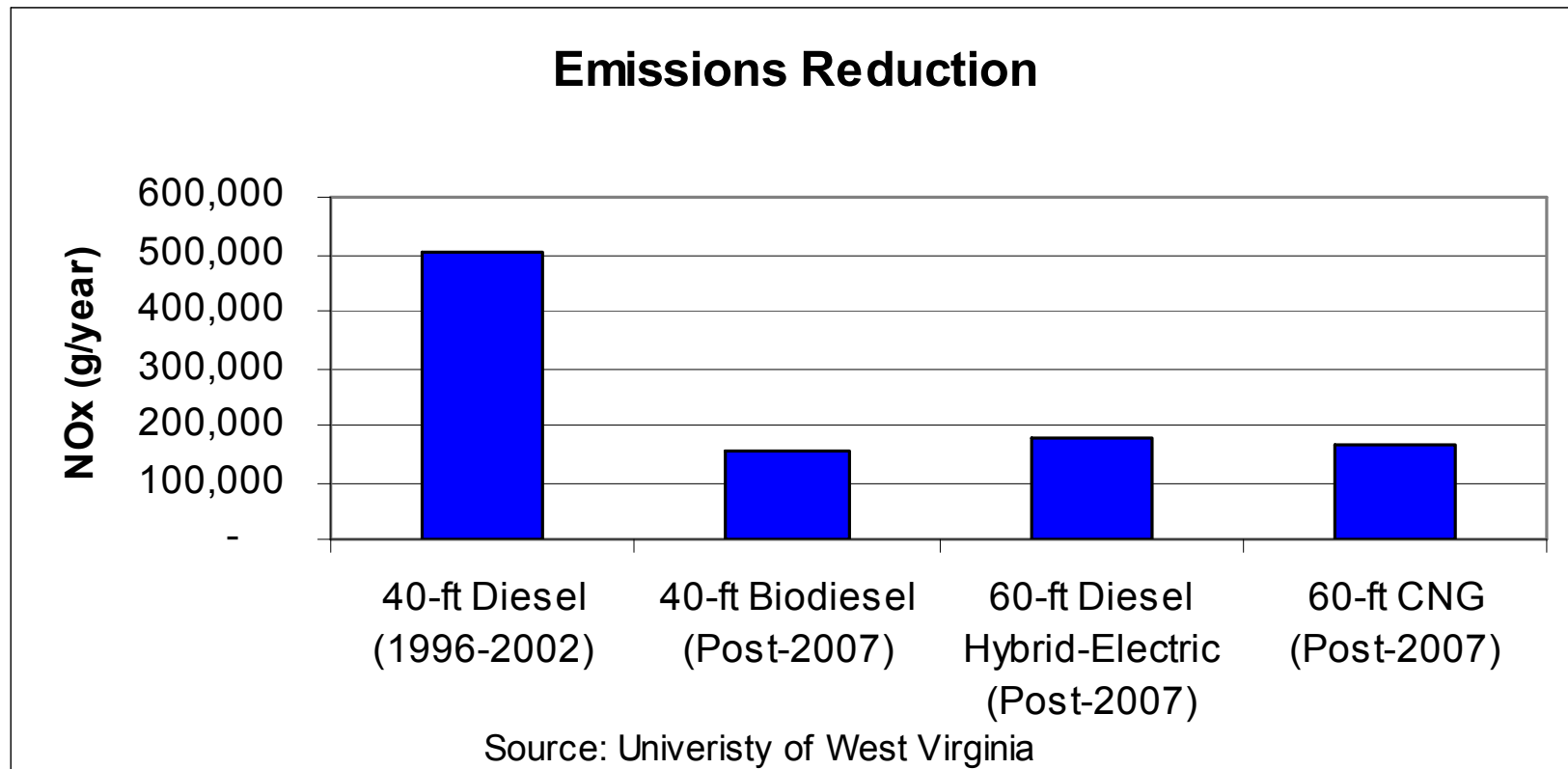
# CTA move towards improved technology

- **In 2006, CTA decided to test two different types hybrid engines, as part of our 1050 New Flyer bus order. They were:**
  - The ISB Series Siemens Hybrid (10)
  - The ISL Parallel Allison Hybrid (10)
- **After evaluation, CTA decided to purchase 150 60 ft buses from New Flyer with the ISL Parallel Allison power train packages**
- **CTA has another 58-60 ft hybrid buses under contract to be delivered in 2009**
- **In addition to hybrid technology CTA has Diesel Particulate Filters on approximately 600 of its 2006 NF Buses, CTA's experience with DPF is with passive (pre-2007) and active (post-2007) filters.**
- **The remainder of its NF fleet is comprised of 2007 emissions certified engines**



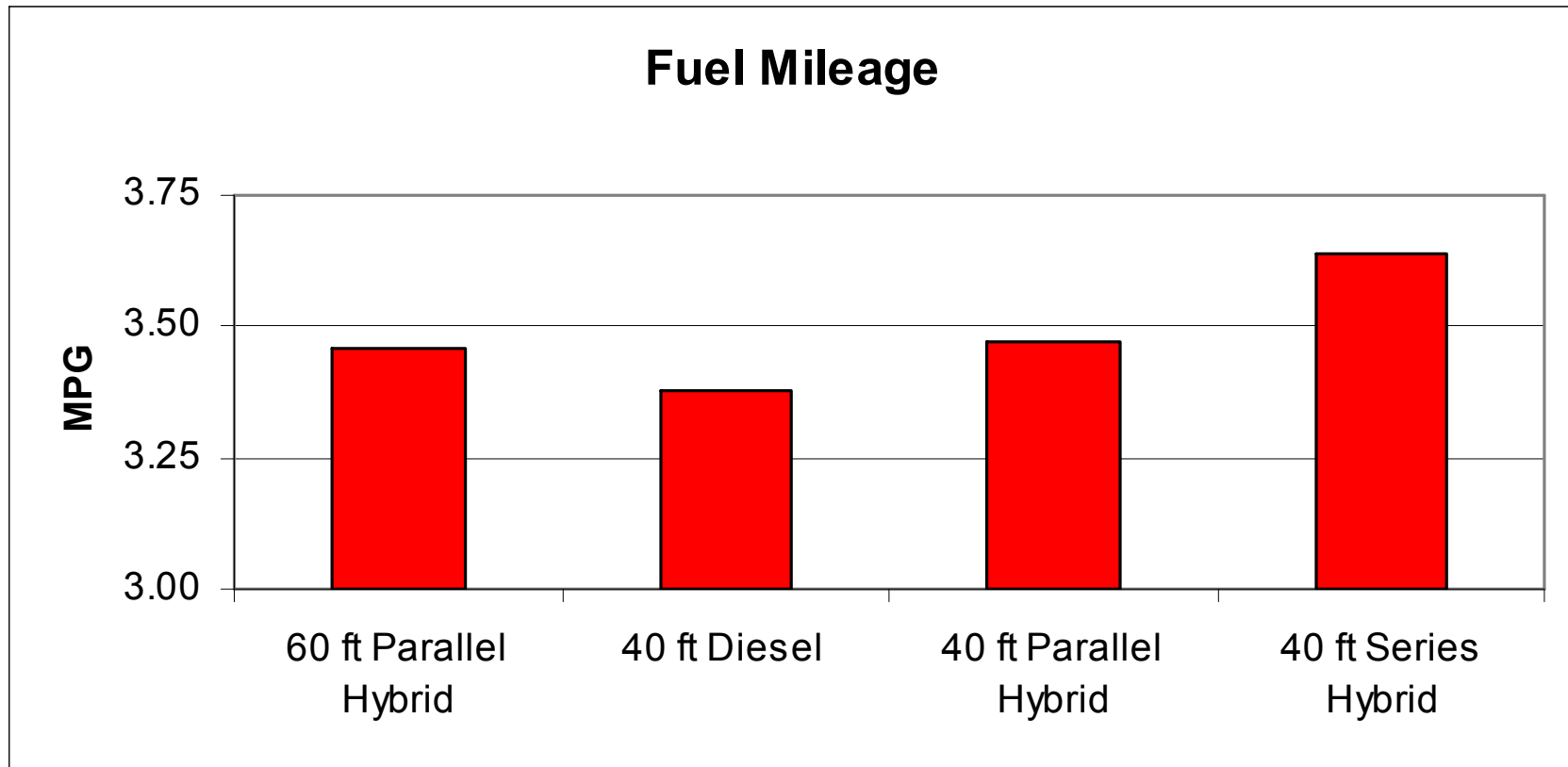
# CTA reduces vehicle emissions

Add chart showing Emissions Reductions for 1991 bus vs 1000 vs 4000 vs 60 ft CNG



# Performance

Chart showing the performance of the two types of hybrid engines against each other, against a diesel bus, and against the hybrid artic.



# Future Advances

- CTA is planning to continue to renew the fleet by starting a base option for 140 hybrid buses out of a contract for up to 900 buses.
- The next hybrid evaluation CTA is considering is a gasoline series hybrid as an alternative to using a Urea additive or other clean fuels, a first of its kind.
  - Pilot 5 BAE 60 ft gasoline Hybrid Artics by New Flyer
  - Pilot 5 ISE 60 ft gasoline Hybrid Artics by New Flyer



