



Metro

Metropolitan Transportation Authority

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TO: BOARD OF DIRECTORS

THROUGH: ROGER SNOBLE
CHIEF EXECUTIVE OFFICER *og*

FROM: CAROLYN FLOWERS
INTERIM CHIEF OPERATIONS OFFICER *Carolyn Flowers*

SUBJECT: ARTICULATED BUS PERFORMANCE

ISSUE

At the February 2007 Board Meeting, Director Fasana asked about the performance and reliability of the Orange Line Compressed Natural Gas (CNG) Articulated buses. This is an update on Metro's CNG articulated bus fleet performance.

BACKGROUND

In July 2005, Metro received the first of 200 CNG Articulated buses. The first 30 articulated buses were placed in revenue service on the Orange Line and the remaining buses were placed in operation on various Rapid lines. These are the first CNG articulated buses produced for public transit operation in the United States. They employ a new low floor style design and are equipped with the first engine specifically designed for CNG fuel.

In September 2006, Metro started receiving the first of 96 additional articulated buses. These buses are currently deployed in local service on Vermont Avenue and Van Nuys Blvd. Other local lines will begin using articulated buses as the buses are accepted and placed into revenue service.

At the present time, Metro has approximately 260 CNG Articulated buses in operation and we expect to have all 296 in operation by the end of June 2007.

DISCUSSION

Overall, Metro staff is pleased with the operation and performance of the articulated buses. The Orange Line buses have accumulated over 2.5 million miles (approximately 83,000 miles per bus), which is almost twice the average of the normal Metro fleet. The remaining articulated buses have accumulated over 10.5 million miles (approximately 48,000 miles per

bus) in less than one year of service. The articulated buses are providing extended service on our most heavily traveled lines.

As expected, we have encountered several issues that have required the manufacturer to make corrective repairs and modifications. For example, the new CNG engines have four separate fleet modifications and we are investigating the cause of premature valve and piston failures in some of the engines.

As for the vehicle itself, the manufacturer is re-welding the articulation cross member and is reinforcing the radius rod bracket. They are also modifying part of the electrical system and the air conditioning system.

All corrections and modifications are covered under the vehicle warranty provisions. The engine has a five year/300,000 mile warranty, and the vehicle frame and structure has a 12 year/500,000 mile warranty. In all cases, the vehicle manufacturer (North American Bus Industries) has responded quickly to any and all problems encountered.

NEXT STEPS

Staff will continue to keep the Board apprised of the continued implementation and deployment of the articulated buses, and will return in the spring with a recommendation to purchase additional replacement buses which may include additional CNG Articulated buses.

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