

City of Redondo Beach

Final Report

AB 2766 Discretionary Fund Contract No. ML07043

Compressed Natural Gas (CNG) Transit Buses

June 13, 2013

**Prepared for the Mobile Source Air Pollution Review Committee
(MSRC) under the AB 2766 Discretionary Fund Work Program**

Abstract/Executive Summary

The purpose of Contract #ML07043 was to co-fund the purchase of five compressed natural gas (CNG) El Dorado National transit buses consisting of three 22-foot, light-duty buses and two 32-foot, medium-duty buses. The City of Redondo Beach took delivery of the first transit vehicle in 2009, an EZ Rider II 32-foot bus; the next three transit vehicles were received in 2010, which are Aerotech 22-foot buses, with the third and last vehicle received in September 2011, an EZ Rider II 32-foot bus. All five transit vehicles display the MSRC logo decal and are operating in revenue service in the Beach Cities Transit fleet. This project helped the Beach Cities Transit to meet its clean fuel goals by becoming a 100% CNG bus fleet in 2010.

Acknowledgements

This project was made possible by the support of the Redondo Beach City Council. This report was submitted in fulfillment of AB2766 contract #ML07043, AB2766 Discretionary fund contract by the City of Redondo Beach under the partial sponsorship of the Mobile Source Air Pollution Reduction Review Committee (MSRC).

“The statement and conclusions in this report are those of the contractor and not necessarily those of the Mobile Source Air Pollution Review Committee (MSRC) or the South Coast Air Quality Management District (SCAQMD). The mention of commercial products, their sources or their uses in connection with material reported herein is not to be construed as either an actual or implied endorsement of such products.”

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Project Detail & Emissions Benefits

The City of Redondo Beach operates fixed route and paratransit transportation services identified as Beach Cities Transit (BCT) and the WAVE. The City of Redondo Beach sought funding to replace a total of five transit vehicles that exceeded their useful life. Three of which were 1998 and 1999 Ford Champion gasoline cutaway vehicles (approximately 20-feet in length) and two 32-foot El Dorado National CNG powered transit vehicles. In September 2008, the City was awarded a total amount of \$125,000 (\$25,000 for each transit vehicle) by the South Coast Air Quality Management District to purchase five CNG powered transit vehicles. In 2011, MSRC approved a grant amendment to change the vehicle size from a 27-foot to a smaller size 22-foot vehicle which is more appropriate for the BCT/WAVE services, with a life expectancy of 5 years for the 22-foot vehicle and 7 years for the 32-foot vehicle. The City purchased, took delivery and placed in revenue service five transit vehicles between 2009 and 2011.

In 2010, BCT became a 100% CNG fleet after the replacement of the last three gasoline powered light-duty transit vehicles. As a result, the emissions benefits of this project are great and will continue to be so over the next several years. The MSRC logo decal is displayed on all five transit vehicles. The following chart currently identifies five CNG powered transit vehicles that were purchased for replacement.

Table 1: CNG Vehicle Types
(Source: BCT Fleet Records.)

Unit #	Transit Vehicle Type	Year Model
535	El Dorado National EZ Rider II, 32-foot bus	2008
508	El Dorado National, Aerotech, 22-foot cutaway	2010
509	El Dorado National, Aerotech, 22-foot cutaway	2010
510	El Dorado National, Aerotech, 22-foot cutaway	2010
536	El Dorado National EZ Rider II, 32-foot bus	2011

The City of Redondo Beach purchased these buses in three different procurement projects off of piggyback contracts. The first procurement was received and placed in revenue service July 2009, which included a 32-foot, 2008 El Dorado National, medium-duty bus equipped with an 8.9I ISLG Cummins CNG engine. The second procurement was received and placed in revenue service August 2010, which included three 22-foot, 2010 El Dorado National, light-duty buses equipped with a 6.8I V-10 Ford CNG engine. The last procurement was received and placed in revenue service September 2011, which included a 32-foot, 2011 El Dorado National, medium-duty bus equipped with an 8.9I ISLG Cummins CNG engine.

Public Outreach

The Public Outreach Plan included announcements on the City website, the City Newsletter, and local media and public events regarding the acquisition and use of the MSRC co-funded vehicles in the Beach Cities Transit fleet. The purchase of these buses brought the Beach Cities Transit as a 100% compressed natural gas powered fleet. As part of the public outreach plan, the following is a list of activities undertaken to promote and highlight the clean fuel benefits of the BCT services, which include:

1. An announcement for arrival of purchased buses was posted on the City BCT webpage in November 2011;
2. An article was included in the Redondo Beach City Newsletter, Winter 2012 edition (p. 7);
3. A News Release was done in November 2011 (Doc#1132011)
 - a. Citywide
 - b. Emailed for distribution to the media for posting in news sections in the Daily Breeze, Easy Reader, The Beach Reporter and the Patch.com;
4. A paragraph is included on the BCT webpage describing that BCT vehicles are powered by CNG and vehicle funding provided in part by Mobile Source Air Pollution Reduction Review Committee.
5. As part of the Public Outreach Plan, staff continues to promote BCT services at various community events:
 - a. Annual Aerospace Commuter Fair in El Segundo
 - b. Annual Back-to-School event at the Redondo High School
 - c. Annual South Bay Cities Council of Governments (SBCCOG) Annual General Assemblies in Carson, CA.
 - d. Annual Earth Day event in Redondo Beach
 - e. Annual Bike to Work day in Redondo Beach
 - f. Annual Senior Health Fair in Redondo Beach
 - g. Annual Safety Fair events in Redondo Beach
6. Promoted in 2010 at the Sustainability Summit and Eco Fair event in Manhattan Beach
7. Promoted in 2010 at the Richmond Street Fair event in El Segundo
8. On-going distribution of BCT schedule brochures at City facilities and libraries for El Segundo, Hermosa Beach, Manhattan Beach, Redondo Beach, Torrance, various Chamber of Commerce, and LAX World Airport.
9. On-going information on the webpage at beachcitiestransit.org and on transit information materials
10. Continue promoting the 511 service with a link included on the BCT webpage under the Transit Connections section.

Barriers and Solutions

The City determined during the term of the agreement, that 22-foot light duty vehicles and 32-foot medium duty vehicles were more appropriate for the BCT/WAVE services, rather than the 27-foot vehicles initially requested in the MSRC grant application. The City requested an amendment to the MSRC agreement #ML07043. MSRC approved the amendment on May 19, 2011 (#ML07043A).

Results and Conclusions

The City was very pleased overall with the procurement results of this project and looks forward to continuing opportunities to partner with the MSRC on additional bus procurement projects.

(Pictures of BCT buses on next page)
BCT Bus units 508 through 510, 535 and 536



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