

Contract Number **ML07044**

MSRC – Purchase of 24 Heavy-Duty Vehicles Equipped with Dedicated Compressed Natural Gas (CNG) or Liquefied Petroleum Gas (LPG) Engines.

City of Santa Monica

July 19, 2016

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



FINAL REPORT

MSRC CONTRACT NO. ML07044

Purchase of 24 Heavy-Duty Vehicles Equipped with Dedicated Compressed Natural Gas (CNG) or Liquefied Petroleum Gas (LPG) Engines.

THE CITY OF SANTA MONICA

Prepared for the Mobile Air Pollution Reduction Review Committee (MSRC) under the AB2766 Discretionary Fund Work Program.

Acknowledgements:

We'd like to thank the staff of the MSRC, especially Rachel Valenzuela and Cynthia Ravenstein, for their patience and help in successfully completing this contract.

This report was submitted in fulfillment of MSRC Contract No. ML07044 for the purchase of 24 heavy-duty vehicles equipped with dedicated Compressed Natural Gas (CNG) or Liquefied Petroleum Gas (LPG) Engines, under the partial sponsorship of the Mobile Source Air Pollution Reduction Review Committee (MSRC).

Disclaimer:

The statement and conclusions in this report are those of the contractor and not necessarily those of the Mobile Source Air Pollution Reduction 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.

Scope & Background:

Since 1991, the City of Santa Monica has utilized funding from California Assembly Bill 2766 to reduce air pollution from mobile sources. Through the partial sponsorship of the MSRC, the City of Santa Monica was able to purchase 24 heavy-duty vehicles equipped with dedicated Compressed Natural Gas (CNG) or Liquefied Petroleum Gas (LPG) engines.

There were many delays during this contract period that contributed to the need to extend this contract. Early on there was a lack of CNG engines available for heavy-duty applications. The City also experienced

several changes in its organizational structure, as well as and changes in operational needs. Budget cuts and several changes in our staff added to the delay as well. There was also a major medical problem and a retirement within the group of employees that worked on these contracts.

The substitutions of vehicle make, model, and engine were necessary due to limited alternative fuel engines and a fire that destroyed one vehicle.

Due to the delays, the City of Santa Monica submitted a contract modification in 2013 to extend the contract term to March 7, 2017. The SCAQMD MSRC approved the contract modification in a letter dated November 8, 2013.

Project Description & Problems Encountered:

The purchase of twenty four heavy-duty CNG vehicles was delayed because CNG engines were not readily available for heavy-duty vehicle applications. Staff was aware of one company that was working on California Air Resources Board (CARB) approvals for a CNG-fueled engine, but pulled out of the market. It was some time before another company came out with an engine that met all required certifications.

Vehicle #20038, a CNG Irrigation Truck originally included in the Scope of Work, was destroyed in a fire. It was placed in service September 2, 2010 and was destroyed August 15, 2012, giving it approximately two years of useful life. City staff notified MSRC on December 5, 2013, and requested direction on how to proceed with this vehicle. The replacement vehicle, Unit 20264, a CNG Dump Truck, was placed into service February 3, 2014. The contract term will terminate March 7, 2017, which will allow Unit 20264 the additional three years required of the five year operational requirement for each vehicle.

The City took delivery and placed into service six CNG sweepers between October 29, 2010 and March 21, 2012. The City received one CNG sewer jetter truck and placed it into service on March 11, 2013. The City received ten CNG refuse trucks between November 30, 2010 and July 1, 2011. The City received three aerial trucks and placed them into service between April 27, 2009 and October 31, 2011. The City received and placed into service one CNG irrigation truck on September 2, 2010 and its replacement, CNG irrigation truck, on February 3, 2014. The City received and placed into service one propane dump truck on March 30, 2010. The City received one propane brush truck and it was placed into service on April 4, 2011. The

City received one propane stake bed truck and placed it into service on February 28, 2011. Overall, the City has received and placed into service a total of 24 vehicles.

Emissions Benefits:

Heavy-duty, natural gas vehicles, produce 90% less CO emissions, 75% less NOx and 68% less PM2.5 when compared to in-use gasoline and diesel vehicles.¹ These emissions contribute to a variety of air quality issues including particulate matter pollution, smog and climate change.² By replacing gasoline for CNG powered vehicles, the City of Santa Monica is taking a profound step toward reducing its impact on the environment.

In addition to the environmental benefits afforded by CNG, a significant cost savings is realized through the purchase of a less expensive fuel. According to data from the US Department of Energy, since 2009, CNG has been, on average, \$1.14 less expensive than gasoline, per gasoline gallon equivalents (GGE).³

As a result of the change, these twenty-four vehicles save thousands of dollars in fueling costs alone. Although CNG vehicles have a higher initial cost, the MSRC grant helps offset this difference.

Photographs & Outreach:

Included in this report are sample photographs of the various types of vehicles we purchased displaying the MSRC logo decals. Also included are copies of the articles that were published as a result of the press release dated March 10, 2014.

¹ http://www.ngvc.org/about_ngv/ngv_environ.html

² <http://www.epa.gov/otaq/consumer/05-autos.pdf>

³ Based on national average prices. <http://www.wingpowersystem.com/natural-gas/pricing>

VEHICLE PHOTOGRAPHS

AERIAL TRUCK (3)

Unit #16240



DUMP TRUCK (2)

Unit #20015



STREET SWEEPER (6)

Unit #20044



FRONT LOAD REFUSE PACKER TRUCK (5)

Unit #20047



REAR LOAD REFUSE PACKER TRUCK (1)

Unit #20072



SIDE LOAD REFUSE PACKER TRUCK (4)

Unit #20094



STAKE BED REFUSE TRUCK (1)

Unit #20062



BRUSH TRUCK (1)

Unit #20070



SEWER VACTOR TRUCK (1)

Unit #20174



**PUBLIC OUTREACH:
PRESS RELEASE
&
ARTICLES**

Heidi Duran

From: Carrie Lujan
Sent: Monday, March 10, 2014 5:30 PM
Cc: Heidi Said; Ryan Kraemer; Rick Sikes
Subject: City's Fleet Division Participates in MSRC Local Government Match Program



City of Santa Monica NEWS

DATE: March 10, 2014

CONTACT: Rick Sikes, Fleet Supervisor, (310) 458-8514

City's Fleet Division Participates in MSRC Local Government Match Program

City of Santa Monica received partial funding for purchase of 24 Medium and Heavy-Duty Alternative Fuel Vehicles

The City of Santa Monica received a grant from the Mobile Source Air Pollution Reduction Review Committee (MSRC) of the South Coast Air Quality Management District (SCAQMD) to partially fund the purchase of 24 vehicles. Some of these vehicles include aerial lifts, street sweepers, refuse collection trucks, and other heavy-duty vehicles, powered by compressed natural gas (CNG) and liquefied petroleum gas (LPG).

The purchase price of these vehicles totals to \$5.4 million, of which the MSRC contributed \$600,000. The grant helps offset the incremental cost of CNG and LPG vehicles and assists the city to comply with AQMD Fleet Rules and the City's Sustainability Plan. The City of Santa Monica's fleet is made up of 70% alternative fuel vehicles, including CNG, LPG, electric, biodiesel and hydrogen. These vehicles emit considerably fewer emissions compared to conventional, unleaded gasoline and diesel vehicles. Additionally, the city supplies its vehicles with CNG for less than half the cost of diesel and gasoline.

The MSRC's sole mission is to fund projects that reduce air pollution from motor vehicles within the SCAQMD. For more information, visit <http://www.cleantransportationfunding.org/>.

Be sure to watch CityTV's segment about the grant and how city employees are using clean-air vehicles in your neighborhood. For schedule information, see <http://www.smgov.net/departments/CityTV/>.

###

COMMUNITY BRIEFS

WEST LA.
More 405 freeway closures

The southbound lanes of the I-405 freeway between Santa Monica and National boulevards will be closed on the nights of March 13 and 15.

The closure is part of the ongoing I-405 Sepulveda Pass Improvements Project, which has caused a number of closures including the recent "Jamzilla."

The March 13 closure begins at midnight and ends at 5 a.m. on March 14. March 15's closure begins at midnight and ends on March 16 at 5 a.m.

Lanes will begin to close at 10 p.m., with limited access. On-ramps will begin to close at 7 p.m.

The freeway will be closed for the installation of a full-span overhead sign.

For more information, visit metro.net/405.

- DANIEL ARCHULETA

UCLA MEDICAL CENTER
Longtime PR man dies at 68

John M. (Jack) Blanchette Jr. of Sudbury, Mass., and Santa Monica, Calif., died Tuesday, March 4, at UCLA Medical Center in Santa Monica, after a brief battle with myelodysplastic syndrome (MDS), a form of leukemia. He was 68.

Blanchette was the president and owner of Blanchette & Associates Public Relations in Santa Monica. He had worked in the field of entertainment and corporate publicity for more than three decades. For the past 15 years he had also wrote travel, wine and food features for Copley and Creators news syndicates.

Blanchette was the press agent for Zsa Zsa Gabor (30 years, longer than nine husbands), and he also worked with Ned Beatty, Delta Burke, Cary Grant, Valerie Harper, Bob Hope, Michael Jackson, Debbie Reynolds and many other celebrities.

- DAILY PRESS

FOURTH STREET
Nonprofit seeks volunteers

Santa Monica-based senior services provider WISE & Healthy Aging is hosting a volunteer orientation Friday at 9:30 a.m. hoping to match up willing participants with area nonprofits.

Some of the opportunities include tax aide programs, benefits enrollment help, making visits to seniors at their homes and teaching adult day programs.

For more information, call (310) 394-9871, Ext. 450

- DA

CITYWIDE
City Hall gets grant for alternative fuel vehicles

City Hall received a grant from the Mobile Source Air Pollution Reduction Review Committee (MSRC) of the South Coast Air Quality Management District (SCAQMD) to partially fund the purchase of 24 vehicles. Some of these vehicles include aerial lifts, street sweepers, refuse collection trucks, and other heavy-duty vehicles, powered by compressed natural gas (CNG) and liquefied petroleum gas (LPG).

The purchase price of these vehicles totals \$5.4 million, of which the MSRC contributed \$600,000. The grant helps offset the incremental cost of CNG and LPG vehicles and assists the city to comply with air quality rules and the city's sustainability plan.

- DA

California mulls how to regulate driverless cars

JUSTIN PRITCHARD
Associated Press

LOS ANGELES Sooner or later, consumers will be able to buy cars that rely on computers — not the owner — to do the driving.

Though the technology is still being tested, the day it rolls out into broad public use can now be measured in years, not decades.

With that timeframe in mind, California's Department of Motor Vehicles on Tuesday began puzzling through how to regulate the vehicles that haven't been fully developed yet.

Among the complex questions officials sought to unravel at the initial public hearing on regulations in Sacramento: How will the state know the cars are safe?

Does a driver even need to be behind the wheel?

Can manufacturers mine data from onboard computers to make product pitches based on where the car goes or set insurance rates based on how it is driven?

Do owners get docked points on their license if they send a car to park itself and it slams into another vehicle?

Once the stuff of science fiction, driverless cars could be commercially available by decade's end. Under a California law passed in 2012, the DMV must decide by the end of this year how to integrate the cars — often called autonomous vehicles — onto public roads.

Three other states have passed driverless car laws, but those rules mostly focus on testing. California has mandated rules on testing and public operation, and the DMV expects within weeks to finalize regulations dictating what companies must do to test the technology on public roads.

Those rules came after Google Inc. had already sent its fleet of Priuses and Lexuses, fitted with an array of sensors including radar and lasers, hundreds of thousands of miles in California. Major automakers also have tested their own models.

Now, the DMV is scrambling to regulate the broader use of the cars. With the federal government apparently years away from developing regulations, California's rules could effectively become the national standard.

Much of the initial discussion Tuesday focused on privacy concerns.

California's law requires autonomous vehicles to log records of operation so the data can be used to

reconstruct an accident.

But the cars "must not become another way to track us in our daily lives," John M. Simpson of the nonprofit Consumer Watchdog said at the hearing. Simpson called out Google, saying the Internet giant rebuffed attempts to add privacy guarantees when it pushed the 2012 legislation mandating rules on testing and public operation.

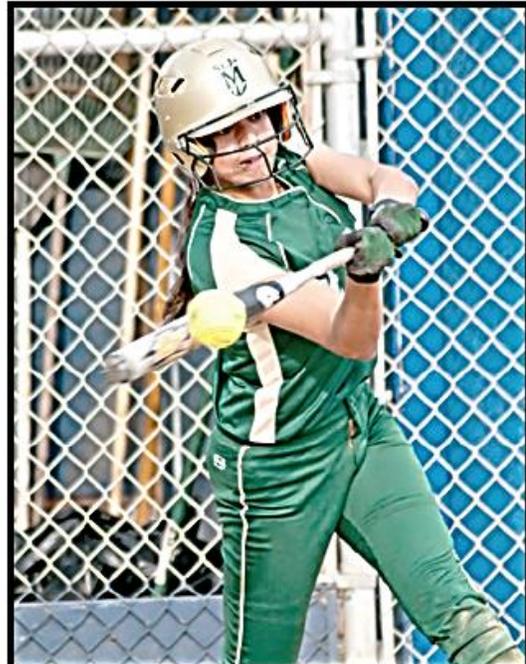
Seated across from Simpson at the hearing's head tables was a representative from Google, who offered no comment on the data privacy issue.

Discussion also touched on how to know a car is safe, and whether an owner knows how to properly operate it.

Ron Medford, Google's director of safety for its "self-driving car" project, suggested that manufacturers should be able to self-certify that their cars are safe. He cautioned that it would get complicated, fast, if the state tried to assume that role.

In initial iterations, human drivers would be expected to take control in an instant if the computer systems fail. Unlike current technology — which can help park a car or keep it in its freeway lane — owners might eventually be able to read, daydream or even sleep while the car did the work.

SEE CARS PAGE 10



HIT GIRL

Morgan Geiser editor@smdp.com
St. Monica's Marisa Hebert smacks a triple, driving in three runs against Venice High School Tuesday on the road. St. Monica went on to win, 11-3.



RECYCLE NOW!

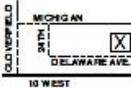
CRV Aluminum Cans

\$1.75 per pound

with this coupon expires 3-31-14

CRV Aluminum Plastic Glass Bi-Metal Newspaper
 Cardboard/White/Color/Computer Paper Copper & Brass

Santa Monica Recycling Center
2411 Delaware Avenue in Santa Monica
(310) 453-9677



Join us for a
**CELEBRATION OF WOMEN'S
Immeasurable Contributions
TO WORLD WAR II**
**March 16th, 2014,
from 2pm - 4pm**

In honor of Women's History Month and in collaboration with the City of Santa Monica's Commission on the Status of Women, the Santa Monica History Museum is celebrating Santa Monica Women of World War II with our Discover the History program. Immeasurable Contributions will include a slide show of historical photographs, a corresponding short talk and focus exhibit.

FREE PROGRAM AT THE
**SANTA MONICA
HISTORY MUSEUM**
1350 7th St.
Santa Monica, CA

SANTA MONICA Mirror

City Of Santa Monica To Purchase 24 Alternative Fuel Vehicles With Partial Funding

THURSDAY, 13 MAR 2014, 8:47:00 AM
MIRROR STAFF

The City of Santa Monica received a grant from the Mobile Source Air Pollution Reduction Review Committee (MSRC) of the South Coast Air Quality Management District (SCAQMD) to partially fund the purchase of 24 vehicles.

Some of these vehicles include aerial lifts, street sweepers, refuse collection trucks, and other heavy-duty vehicles, powered by compressed natural gas (CNG) and liquefied petroleum gas (LPG).

The purchase price of these vehicles totals to \$5.4 million, of which the MSRC contributed \$600,000.

The grant helps offset the incremental cost of CNG and LPG vehicles and assists the city to comply with AQMD Fleet Rules and the City's Sustainability Plan.

The City of Santa Monica's fleet is made up of 70 percent alternative fuel vehicles, including CNG, LPG, electric, biodiesel and hydrogen.

These vehicles emit considerably fewer emissions compared to conventional, unleaded gasoline and diesel vehicles. Additionally, the city supplies its vehicles with CNG for less than half the cost of diesel and gasoline.

The MSRC's sole mission is to fund projects that reduce air pollution from motor vehicles within the SCAQMD.

For more information, visit www.cleantransportationfunding.org.

Copyright © 2011 by Santa Monica Mirror. All rights reserved.