

**City of Culver City
Final Report
September 30, 2019**

Contract No. ML18045

Contract Period – June 28, 2018 through June 28, 2025

Acknowledgements

This report was submitted in fulfillment of Contract No. ML18045 for funding toward the purchase of eight (8) heavy-duty Compressed Natural Gas (CNG) refuse vehicles by the City of Culver City under the partial sponsorship of the Mobile Source Air Pollution Reduction Review Committee.

Disclaimer

The statements and conclusion 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 product.

Project Description and Work Performed

The City of Culver City adopted CNG technology in 1996 in accordance with early South Coast Air Quality Management District (AQMD) air quality mandates. Viewing CNG as the most viable and cost effective way to lower petroleum-based engine emissions, Culver City expanded its CNG fleet from the initial purchase of 20 transit busses in 1998 to a current total of more than 100 light-, medium-, and heavy-duty vehicles. Contract ML18045 allocates \$51,000 for the purchase of eight (8) front-loader refuse trucks for use by the City's Public Works Department.

Culver City originally submitted a proposal to purchase eight (8) heavy-duty refuse trucks using Clean Transportation Funding from the MSRC on March 2, 2018. The City planned to contribute the balance of funds toward each vehicle from the City's own Equipment Replacement Fund. The total cost of the replacement was \$3,016,053.44 which was more than the estimated project cost at the time of the grant application, but does not account for HVIP voucher funding expected to be received.

At the time of application in March 2018, development of the technical and mechanical specifications for these vehicles was already underway. The purchase order for the new vehicles was issued by the City on April 10, 2018. Preproduction meetings were held with the manufacturers, Autocar, McNeilus, and Los Angeles Freightliner, and equipment development was ongoing during the production phase.

Upon delivery, each vehicle underwent thorough inspection by the City's technicians and several issues were resolved with the manufacturer prior to vehicle acceptance. Today, all vehicles are working well in their specific capacities.

Problems Encountered

Prior to acceptance of the vehicles, and before they were placed into service, several technical issues were addressed including fuel line protections, seat design modifications, and door placements. To address these issues, City staff worked closely with the manufacturers and all issues have been satisfactorily addressed.

Emissions Benefits

Utilizing the California Air Resources Board (CARB) approved calculation methodology, emission reductions for the CNG powered refuse trucks were realized by comparing the emissions from the new 2019 low-NOx CNG engines to the 2008 engines they were replacing. We have calculated a WTW GNG (CO₂eq) emission reduction of 411.5 metric tons, a 41.8% reduction relative to the prior natural gas fleet.

Public Outreach

Public outreach was conducted in compliance with the City's proposed outreach plan. Additionally, vehicle manufacturer Autocar prominently displayed the vehicle at the Advanced Clean Transportation Expo in Long Beach, California in April of 2019 with its MSRC decal installed and information about the MSRC available for takeaway at Autocar's display table.



All presentations, publications, articles, and signage present and promote Clean Transportation Funding from the MSRC via the prominent placement of the logo, and reference to the website www.cleantransportationfunding.org. The vehicles also prominently display the Clean Transportation Funding sticker.

Summary and Conclusion

The Local Government Partnership Program provides an excellent opportunity for municipalities to replace their diesel vehicles with alternative fuel replacements. For Culver City, the project is especially

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significant because it allows the City to replace CNG refuse trucks with the newest, most advanced technology CNG engines available. The City is realizing significant GHG reductions through the service provided by these vehicles, as well as NOx and PM-10, over the 8-year service life. Culver City is proud to partner with the MSRC in its commitment to reducing air pollution emissions to improve air quality.

For additional information or questions, please contact:

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