File #: 2020-0261, **File Type:** Contract **Agenda Number:** 25.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
NOVEMBER 19, 2020**

SUBJECT: NEAR ZERO NATURAL GAS FUELED ENGINES

ACTION: AWARD CONTRACT

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to award a five-year, indefinite delivery/indefinite quantity Contract No. MA67067000 for Near Zero Emission Natural Gas Fueled Heavy Duty Engines to Cummins Pacific, LLC for a not-to-exceed amount of $55,716,263, inclusive of sales tax.

ISSUE

This procurement is for the acquisition of Cummins L9N “Near Zero Emissions” engines, which will be installed as part of the Central Maintenance Shops (CMS) bus midlife engine replacement program over the next five fiscal years. The Cummins L9N near zero engines will operate on Renewable Compressed Natural Gas (RCNG) and replace the older Cummins ISLG engines that are currently installed in the New Flyer Xcelsior 40-foot buses.

The CMS engine replacement program is coordinated with Metro’s strategic plans for lowering greenhouse gas emissions on the current bus fleet and transitioning to Zero Emission Buses for future bus procurements. This procurement is required to ensure the current bus fleet is properly maintained and that the engine replacement program continues without delays and with no impact on revenue service.

BACKGROUND

In October 2016, Metro staff responded to a Board request to provide a comprehensive plan to further reduce greenhouse gas emissions. The report to the Board identified a comprehensive approach to reducing greenhouse gas emissions that included both the procurement of zero emissions buses and the use of Low NOx “Near Zero” CNG engines operating on RCNG for midlife engine repowers beginning in FY18.

In August 2017, Metro entered into a contract with Cummins Pacific LLC for the purchase of up to 395 near zero emissions engines for the midlife refurbishment program. The Air Quality Management District (AQMD) provided $1.875 million in grant funding for 125 of the near zero emissions engines,

and Metro has received $9.6million of $12.6 million in pending reimbursements for vouchers submitted to the California Air Resources Board (CARB) Hybrid and Zero-Emissions Truck and Bus Voucher Incentive Project (HVIP) to offset the cost of the near zero emissions engines.

The remaining task orders for purchase of new near zero emissions engines under the existing contract were issued in October and this new contract is needed to support the midlife near zero engine replacement program.

DISCUSSION

CMS staff identified the need to purchase up to 800 natural gas fueled heavy duty engines to replace the Cummins ISL-G 280 hp engines that are currently installed in the New Flyer Xcelsior 40-foot buses during the period FY21 through FY24. The Cummins L9N Near Zero Emission engines delivered under this procurement will be installed by Metro mechanics as part of the midlife engine replacement program.

The Cummins L9N Near Zero natural gas engine reduces NOx emissions by ninety percent (90%) and greenhouse gas emissions by nine percent (9%) compared to the standard ISL-G CNG powered engine currently installed in this bus fleet. The Cummins L9N Near Zero Emission engine is currently the only CNG mid-range engine to receive emissions certifications from the Federal Environmental Protection Agency (EPA) and California Air Resources Board (CARB) for meeting the 0.02 g/bhp-hr optional Near Zero NOx emissions standard. These engines are designed to be operated on either pipeline CNG or bio-gas/RCNG.

The Cummins L9N Near Zero natural gas engines are warranted to be free from defects in design and materials for two-years with unlimited mileage with full parts and labor on all warrantable failures.

The contract to be awarded is a “requirements type” agreement in which we commit to order only from the awardee, up to the specified quantity for a specific duration of time, but there is no obligation or commitment for us to order any or all of the Cummins L9N Near Zero engines that may be anticipated. The bid quantities are estimates only, with deliveries to be ordered and released as required. The Diversity and Economic Opportunity Department (DEOD) recommended a two percent (2%) DBE goal for this solicitation.

The Cummins L9N Near Zero natural gas engines will be purchased, maintained in inventory, and inventory managed by Material Management. As the engines are issued to buses being refurbished in the midlife program, the appropriate budget project numbers and accounts will be charged.

DETERMINATION OF SAFETY IMPACT

The award of this Contract will result in a positive impact on safety by reducing NOx emissions by ninety percent (90%) and greenhouse gas emissions by nine percent (9%) from Metro buses. The installation of these new engines will also ensure that buses are maintained in accordance with Metro Maintenance standards and improve on-road performance and reliability, with beneficial impact on system safety and reliability.

FINANCIAL IMPACT

The total contract value is not-to-exceed $55,716,263. The funding of $3,830,475 for the additional

engines required during the current fiscal year is included in the FY21 budget in cost center 3366, Central Maintenance Shops under project 203024, Bus Midlife Program and line item 50441, Parts-Revenue Vehicle. Since this is a multi-year Contract, the project manager, cost center manager and Chief Operations Officer will be accountable for budgeting the cost in future fiscal years.

As noted above, Metro has been successful in obtaining additional funding in the past for the installation of the Cummins L9N near zero engines. Grant funding in the amount of $1.875 million was awarded to Metro by the MSRC, and Metro has received $9.6million of $12.6 million in pending reimbursements for vouchers that have been submitted to the CARB HVIP program to offset the cost of the near zero emissions engines. Metro staff met with regulatory agencies and has identified other potential funding opportunities to pursue to offset the incremental cost for the procurement of the new near zero emissions engines identified in this contract.

Impact to Budget

The source of funds for this procurement will come from Federal formula funds and local Proposition C 40%. Using these funding sources maximizes the allowable project funding designations given approved provisions and guidelines.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The procurement of the Cummins L9N Near Zero Emissions engines supports Strategic Goal 1: Provide high-quality mobility options that enable people to spend less time traveling. The installation of the Cummins L9N Near Zero Emissions engines will maintain the reliability of the bus fleet and ensure that our customers are able to arrive at their destinations without interruption and in accordance with the scheduled service intervals for Metro bus operations.

ALTERNATIVES CONSIDERED

The alternatives to awarding this Contract for near zero emissions natural gas fueled heavy-duty engines includes procuring the engines on an as-needed basis, using the traditional "min/max" replenishment system method. The "min/max" replenishment system method calculates minimum and maximum inventory levels. This strategy is not recommended since it does not provide for a commitment from the supplier to ensure availability, timely delivery, continued supply and a guaranteed fixed price for natural gas fueled heavy-duty engines.

A second alternative would be to discontinue the purchase of near zero emissions natural gas fueled heavy-duty engines and rebuild the older Cummins ISL-G engines removed from the buses during the midlife process. This strategy is not recommended since the Cummins L9N near zero emissions engines reduce NOx emissions by ninety percent (90%) and greenhouse gas emissions by nine percent (9%) below that of the Cummins ISL-G engine removed from the buses during the midlife process. Additionally, the internal wear of parts and components in engines that have operated for about 300,000 miles in a heavy-duty, stop-and-go transit environment results in a lower level of performance and reliability for rebuilt engines, while the new Cummins L9N near zero emissions engines come with a two-year manufacturer’s warranty to protect Metro from cost associated with any premature engine failures. Finally, the cost of rebuilding the Cummins ISL-G engines is about $35,000, and Metro would not be eligible for any incentive programs from Local, State, or Federal

sources to support the reduction in exhaust emissions. Since this is an indefinite delivery/indefinite quantity contract, Metro could elect to forgo purchase of the Cummins L9N near zero emissions engines at any time in the future after purchase of the minimum order quantity of 200 engines.

NEXT STEPS

Metro's requirements for Cummins L9N engines for the bus midlife refurbishment program will be fulfilled under the provisions of the contract, and the refurbishment of the New Flyer Xcelsior 40-foot bus fleet will continue in accordance with Operations Support Services bus mid-life and engine replacement program.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary

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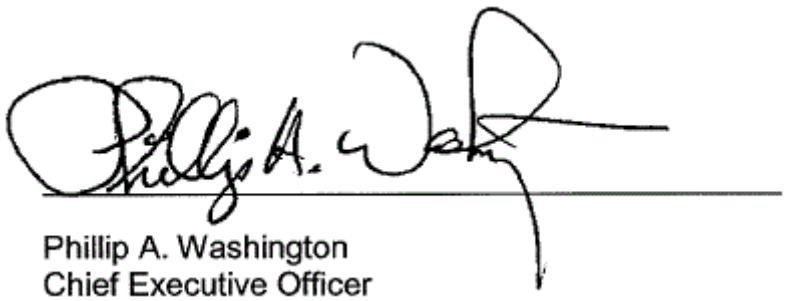

Phillip A. Washington
Chief Executive Officer

ATTACHMENT A

PROCUREMENT SUMMARY

NEAR-ZERO EMISSIONS NATURAL GAS FUELED BUS ENGINES

1.	**Contract Number**: MA67067000	
2.	**Recommended Vendor: Cummins Pacific LLC**	
3.	**Type of Procurement (check one):** ☐ **IFB** ☒ **RFP** ☐ **RFP–A&E** ☒ **Non-Competitive** ☐ **Modification** ☐ **Task Order**	
4.	**Procurement Dates**:	
	A. Issued: 12/23/2019	
	B. Advertised/Publicized: N/A	
	C. Pre-Bid Conference: None	
	D. Proposal Due: 03/25/2020	
	E. Pre-Qualification Completed: 01/23/2020	
	F. Conflict of Interest Form Submitted to Ethics: 01/17/2020	
	G. Protest Period End Date: TBD	
5.	**Solicitations Picked Up/Downloaded**: 1	**Proposals Received**: 1
6.	**Contract Administrator**: Edmund Gonzales	**Telephone Number**: 213/418-3073
7.	**Project Manager**: James Pachan	**Telephone Number**: 213/922-5804

A. Procurement Background

This Board Action is to approve Contract No. MA67067000 in support of Metro's Natural Gas Fueled Bus Fleet to procure Near-Zero Emissions Bus Engines for bus engine replacements.

A Request for Proposal (RFP) was issued to the Original Equipment Manufacturer (OEM), Cummins Pacific, LLC, on December 23, 2019 in accordance with Metro's Acquisition Policy and the contract type is a not-to-exceed Indefinite Delivery/Indefinite Quantity (ID/IQ).

One Amendment was issued during the solicitation phase of this RFP:

- Amendment 1, issued, March 19, 2020; requested a formal Best and Final Offer (BAFO) for the bus engines.

The sole source proposal was received on March 24, 2020.

B. Evaluation of Proposal

This is a sole source procurement. The proposal was found to be technically acceptable and fully responsive to all the RFP requirements. The firm recommended for award, Cummins Pacific, LLC was found to be responsive and responsible.

C. Cost/Price Analysis

A price analysis was performed on the proposed offer, consisting of Metro's independent cost estimate, comparable historical unit price from the last Zero Emission bus buy in 2017, and price comparisons from other transit agencies (OCTA and Omnitrans). Based on staff's price analysis, it was determined that the total proposed price is fair and reasonable.

Proposer Name	Proposed Amount	BAFO Amount	Metro ICE
Cummins Pacific, LLC	$55,720,643	$55,716,263	$54,080,000

D. Background on Recommended Contractor:

Cummins Pacific LLC, located in Irvine, CA, has been in business for 28 years. Cummins manufactured engines that operate on Renewable Compressed Natural Gas (RCNG), certified by the Federal Environmental Protection Agency (EPA) and California Air Resources Board (CARB) for meeting Near Zero NOx emissions standards, and is an aftermarket distributor of bus parts. Cummins Pacific has provided similar products to other transit agencies including Orange County Transit Authority (OCTA), Santa Monica Municipal Bus Lines (Big Blue Bus), San Diego Metropolitan Transit System, Torrance Transit, and other agencies. To date, Cummins Pacific has provided satisfactory products and services to Metro on previous purchases.

DEOD SUMMARY

NEAR ZERO NATURAL GAS FUELED ENGINES / MA67067000

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established a 2% Disadvantaged Business Enterprise (DBE) goal for this indefinite delivery/indefinite quantity solicitation. Cummins, Inc. made a 0.65% DBE commitment and was required to submit Good Faith Efforts (GFE) towards meeting goal. Based on a review of the GFE, it was determined that Cummins, Inc. demonstrated adequate good faith efforts to achieve the 2% DBE goal as shipping costs were the only identified opportunity for DBEs.

In response to a specific Task Order request with a defined scope of work, the prime consultant will be required to identify the actual dollar value commitment for that Task Order. Overall DBE achievement in meeting the commitment will be determined based on cumulative DBE participation of all Task Orders awarded.

Small Business Goal	**2% DBE**	**Small Business Commitment**	**0.65% DBE**

	DBE Subcontractor(s)	**Ethnicity**	**% Committed**
1.	Say Cargo Express	Caucasian Female	0.65%
		Total Commitment	**0.65%**

B. Living Wage / Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. Project Labor Agreement/Construction Careers Policy is applicable only to construction contracts that have a construction contract value in excess of $2.5 million.