File #: 2021-0814, **File Type:** Contract **Agenda Number:**

OPERATIONS, SAFETY AND CUSTOMER EXPERIENCE COMMITTEE
MAY 19, 2022

SUBJECT: PS51220, ZEBGO PARTNERS, JOINT VENTURE, ZERO EMISSIONS PROGRAM MASTER PLAN

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

A. EXECUTE Modification No. 8 with ZEBGO Partners, JV, to continue technical consultant services for the Zero Emission Bus (ZEB) Program Master Plan and as needed tasks for ZE implementation support at the cost-plus fixed fee price of $3,500,624, increasing the Contract value from $7,139,376 to $10,640,000 thus allowing for an 18 month period of performance extension from June 30, 2022 to January 1, 2024; and

B. INCREASE Contract Modification Authority by $350,062 for a total of $3,850,687 to facilitate the as needed tasks for ZE implementation support under Modification No. 8.

ISSUE

Staff forecasts the completion of Phase 1 efforts within the current Not-To-Exceed (NTE) authorization and current period of performance expiring on June 30, 2022. Staff seeks to advance to Phase 2 of technical support by extension of the performance period and increasing modification authority to meet the 2030 Zero Emission goal set by the Board.

BACKGROUND

In July 2017, the Board approved Motion #50 (Attachment A) by Directors Bonin, Garcetti, Najarian, Hahn, and Solis (with friendly amendments) to establish a working group and develop strategies for a master plan detailing the steps and costs associated with converting the Metro bus fleet to Zero Emission by 2030. The motion resulted in the contract authorization to award to ZEBGO a cost-plus/fixed fee contract to provide technical consulting support services to meet the 2030 motion. ZEBGO's focus has been primarily to assist Metro with Phase 1 of the conversion to ZEB; specifically, development of the 1st iteration of the Master Plan and support the conversion of the G & J lines ZEB service.

ZEBGO provides technical consultant services with efforts that include the ZEB Roll Out Plan development/updates, ZEB Master Plan refinement, implementation support for transition to a ZEB

fleet, technical consulting and advisory support for Charging Infrastructure installations. This includes as needed tasks such as the development of technical specifications and contract documents for bus and infrastructure projects, design support for 100% design for Metro divisions, charge management modeling, designs for equipment placement, new technology evaluation support and project development for the Industrial Park to facilitate transit project delivery and promote innovation.

Status of ZEB Conversion

In March 2021, staff presented a board report recommending approval of the ZEB Rollout Plan, a CARB requirement. The plan included parameters to convert the entire Metro fleet to BEBs by the 2030 target. This includes the conversion of Metro bus divisions, installing en-route chargers, and procurement of nearly 2,000 BEBs for an estimated $3.5 billion dollars. Following Board approval, the report was provided to California Air Resources Board (CARB).

To date, Metro has awarded three ZEB contracts for battery electric bus (BEB) acquisitions and electrification of the G (Orange) and J (Silver) BRT lines; one with New Flyer for forty 60' BEB's operating on the G Line; and two with BYD for five 60' BEB's for the G Line and one hundred 40' BEB's planned for the J Line and local service. Upon completing these bus acquisitions, one hundred forty-five (145) BEB's will be incorporatedinto the fleet.

ZEB service started on the G Line in July 2020, with full battery electric operations by early 2021. On October 13, 2021, Metro held a press conference to announce the successful conversion of the G Line from CNG to 100% Zero Emissions operations. Staff is targeting J Line electrified service by the end of 2022 to early 2023.

In May 2021, the Board authorized the CEO to contract with Southern California Edison (SCE) for a 10MWh substation installation at Division 9 in El Monte. In June 2021, the Board approved a $50M Life of Project budget to electrify the J Line as soon as possible. Additionally, authorization was granted to purchase BYD charging equipment for Division 9. Lastly, staff was authorized to start FY22 midyear recruitment for an additional five (5) newly created positions to support J line charging infrastructure installations.

DISCUSSION

The ZEBGO contract was originally awarded on September 27, 2018, with a NTE value of $7,139,376 and a period of performance expiring on June 30, 2022. This recommendation seeks authorization for additional contract authority and an 18-month period of performance extension for the contract. At the time of award, Metro was tasked to develop a Master Plan to accelerate ZEB conversion to meet a 2030 target completion, well in advance of the CARB Innovative Clean Transit (ICT) rule requiring 100% ZEB fleet conversion by 2040.

The ZEB rollout plan was created during the NextGen Bus Plan development that changed the deployment of the bus fleet. Within this window, multiple COVID-19 related challenges arose, including the March 2020 Stay-at-Home declaration, severe financial constraints, and COVID related staff absenteeism. After nearly 2 years, some of these challenges remain and continue to impact the

ZEB program.

Despite these challenges, ZEBGO produced the Rollout plan, supported evolving ZEB Program infrastructure development, and continued various project specific tasks to meet the ZEB conversion target by 2030. They successfully supported the achievement of G Line electrification and are currently working to support J line electrification. With remaining contract funding limits and task orders in place, ZEBGO will complete the Master Plan Phase I task orders within the approved period of performance and contract authority limits. These tasks include:

- Industry Outreach
- Metro Ops Inventory
- Assessment of Best Industry Practices
- Support Negotiations with Utilities
- Facilitate Conceptual Design Support

With recommended contract modification approval, ZEBGO can continue to support Metro into the next phase of the rollout plan without risk to project momentum. The foremost priority includes updating the Zero Emission Master Plan based on post COVID travel patterns, current Next-Gen service levels, reassessing division facility conversions to address service needs and refining cost / schedule strategies for optimal Battery Electric Bus (BEB) conversion/deployments with an eye towards leadership in regional standardization and inter-operability within the 2030 target.

In the June 2021 Board meeting, staff presented a $3.5 billion dollar cost estimate for 2030 conversion. BEB technology is evolving rapidly such that there may be price points Metro may consider in its procurement strategies to reduce the estimated costs. This next phase will include a strategic conversion analysis of Metro's bus divisions that matches evolving bus technologies and charging advancements coupled with NextGen service scheduling parameters. Based on the most current BEB procurement costs, it is apparent that Battery Electric Bus technology carries a cost premium to build an electric motor power train over the traditional CNG engine. Additionally, charging infrastructure and equipment are a new need to support electrification and thus carries a similar premiums for new installations. Ultimately economies of scale for materials and productions have not yet been achieved with these newer products. ZEBGO's consultant expertise may be used to selectively reduce the price premiums of bleeding edge adoptions while bringing zero emissions to the region by 2030.

DETERMINATION OF SAFETY IMPACT

The approval of this Contract will have no negative impact to system safety.

FINANCIAL IMPACT

Upon recommendation approval, the total not-to-exceed contract amount will be $10,640,000. Staff will fund ongoing work for this contract using approved FY22 and future FY project budgets. There will be no impact to the Vehicle Engineering and Acquisitions Program level budget. Staff will rebalance approved budget limits in the current and future FY to ensure contract tasks progress within approved financial limits. Since this is a multi-year contract, the cost center manager will be

accountable for budgeting the balance of funds in future fiscal years.

Impact to Budget

The current source of funds for these actions are Measure R Admin and task orders funded by capital projects with authorized LOPs. Since the project tasks are funded with existing LOP budgets and annual study project funds, the funding sources will vary according to established funding plans for the respective projects. No task order(s) shall be issued, which increases a capital project LOP. Staff will reassess funding sources and apply other applicable fund sources as they become available to the respective projects.

EQUITY PLATFORM

The near-term efforts planned for consultant services focus on electrification of the J Line.

The J Line provides bus services to Equity Focused Communities (EFC's) from El Monte Station to Downtown Los Angeles to Harbor Gateway Transit Center. The J Line runs through the 10 and 110 Freeways along a dedicated BRT lane and serves the following ridership (Fall 2019 Silver Line Rider Survey):

- 48% below $25K household income (42.5% below poverty line)
- 68.3% had no car available
- 74% use transit 5+ days a week
- Rider Ethnicity: Latino 58.3%; Black 15.2; White 10.6%; Asian/Pacific Islander 9.8%; Other 6.1%

It is recognized that BEBs provide improved air quality and quieter services compared to current Renewable Natural Gas (RNG) bus fleet. Accordingly, BEBs stand to improve air quality, reduce noise pollution, and improve overall health and quality of life aspects for affected J Line EFCs. However, RNG compared to BEB ranges are not at the point where 1 for 1 service replacement can be provided without increasing risks to the quality of service. Staff will provide options for further electrified J Line services as BEB range performance is improved and/or additional charging infrastructure installations are completed.

The ZEBGO contract is required to meet a DBE goal of 17.26%. As of Feb 2022, the contract has exceeded its DBE goal by achieving a 20.17% cumulative to date DBE participation level.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports strategic plan goals:
#2 Deliver Outstanding trip experiences for all users of the Transportation System
#4 Transform LA County through regional collaboration and national leadership

Conversion of our bus fleet to BEB provides an outstanding trip experience for the bus system patrons. The BEB fleet will include modern amenities such as wifi and USB charge ports. As stated earlier, BEBs provide improved air quality and quieter services compared to the CNG/RNG bus fleets. Accordingly, BEBs stand to improve air quality, reduce noise pollution, and improve overall

health and quality of life aspects for affected communities where BEB services will be rolled out.

This recommendation supports the Board motion for Zero Emissions by 2030, accelerating the conversion of the CNG/RNG Bus fleet to Clean Battery Electric Fleet by 10 Years. Approval of this recommendation keeps LA Metro in the leadership position to guide the conversion of mega bus fleets to electrification. LA Metro is the largest agency in the West Coast converting to BEB services to this scale.

ALTERNATIVES CONSIDERED

Staff considered preparing a new procurement for continuing ZEB technical consultant services. This alternative is not recommended due to the extended delays impacts to the ZEB program as we work toward a 2030 target. All current and future projects continue towards accelerated ZEB delivery. Recruitment for consultant staff and associated learning curves for consultants will delay the Program.

Metro could rely exclusively on internal staff to perform the work. This alternative is not recommended as it would not be cost effective to maintain this level of expertise in-house on a full-time basis. Additionally, it would take staff away from the core operation functions and be more costly than contracting them on a task order basis.

The Board of Directors may choose not to authorize the Contract recommendations for these projects; however, this alternative is not recommended by staff, as the projects are critical to support the planning necessary for conversion to Zero Emission operation by 2030 and Industrial Park. Without the additional contract support the timely delivery of the plans would be at risk. Approval of the recommendations are more favorable over a new solicitation as it is the most expeditious approach to achieving the above enumerated benefits for Equity Focused Communities

NEXT STEPS

Upon Board approval, staff will execute the contract recommendations and issue task orders to ZEBGO.

ATTACHMENTS

Attachment A - Board Motion 50
Attachment B - Procurement Summary
Attachment C - Contract Modification/Change Order Log
Attachment D - DEOD Summary

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REVISED
REGULAR BOARD MEETING
JULY 27, 2017

Motion by:

DIRECTORS BONIN, GARCETTI, NAJARIAN, HAHN and SOLIS
AS AMENDED BY SOLIS, KUEHL and BARGER

FRIENDLY AMENDMENT BY FASANA

July 27, 2017

Strategic Plan for Metro's Transition to Zero Emission Buses

LA Metro has developed a comprehensive plan to deliver a complete transition to zero emission electric buses by 2030. The transition plan is contingent on two primary factors: continuous advancements in electric bus technology (which must increase range, reduce bus weights, reduce charging times, extend battery life cycles), as well as a drop in prices as the technology develops.

As electric bus technology continues to advance, our electric grid is becoming cleaner by gradually eliminating coal from our energy portfolio and replacing it with renewable sources. A full transition to electric buses coupled with renewable energy sources promises mobility with significantly lower environmental impacts from this form of transportation.

In order to maintain our bus fleet in a state of good repair, Metro plans to continue replacing its aging bus fleet at approximately 200 buses per year. With firm local hiring requirements in Metro bus procurement, routine bus procurement presents a recurring opportunity that bolsters our local labor force in perpetuity.

In 2012, Metro's U.S. Employment Plan resulted in the award of an $890 million contract to Kinkisharyo, a factory in Los Angeles County, and 404 quality railcar manufacturing jobs. Similarly, Metro can leverage recurring bus replacements to bolster labor throughout Los Angeles County

Metro plans to spend nearly one billion dollars on bus procurements in the next ten years That level of investment, coupled with a transition to all electric buses, presents an opportunity for LA County to demonstrate leadership on combating climate change, and can make Los Angeles the central marketplace for new electric bus technology: a County rich with quality manufacturing jobs rooted in technologies that provide mobility, sustain a healthy environment and create career paths in clean

energy technologies.

SUBJECT: MOTION BY BONIN, GARCETTI, NAJARIAN, HAHN AND SOLIS AS AMENDED BY SOLIS, KUEHL AND BARGER

RECOMMENDATION

WE THEREFORE MOVE that the Board:

A. ENDORSE the Strategic Plan for Metro's Transition to Zero Emission Buses;

B. DIRECT the CEO to create a zero emission bus infrastructure working group comprised of Metro staff, federal and state regulators and local utility companies to track market availability and to cultivate ongoing collaboration among stakeholders. The working group will monitor market rates for emerging zero emission bus technology to support Metro's 2030 transition plan:

1. Working group to report to the Board annually with the latest technology innovations to support the cost/benefit analysis of fleet conversion

2. MTA to host an industry forum to solicit innovative solutions to delivering the 2030 plan;

C. AMEND the Metro federal legislative plan to advocate for local jobs as a critical factor in the evaluation criteria of MTA procurements; and

D. DEVELOP an equity threshold consistent with Title VI regulations for priority deployment of electric buses in underserved communities.

FURTHER MOVE that the Board direct staff to:

A. As part of establishing a working group:

1. EXPAND the invitation to regional air quality regulators (e.g. South Coast Air Quality Management District), the American Public Transportation Association and California Transit;

2. EXAMINE and TRACK vehicle technology and performance, energy production and pricing, infrastructure needs and life-cycle analysis and creative funding opportunities.

B. COORDINATE with the County of Los Angeles to explore opportunities to develop a countywide incentive structure to promote and attract more companies to manufacture, assemble and produce zero-emission transit vehicles and related technologies and infrastructure in Los Angeles County;

C. Widely PROMOTE and ENCOURAGE municipal transit agencies/operators to participate in the established process by which to co-procure ("piggyback procurement" provisions) zero-

emission transit vehicles;

D. ENSURE that MTA maintains the flexibility to explore the best available technologies that contributes to zero-emissions and/or net-negative emissions in the Los Angeles County public transit sector.

FRIENDLY AMENDMENT BY FASANA that staff report back to the board with a timeline and any commitments by parties before we undertake our next bus purchase and answers to the following questions:

A. Will electric buses and their batteries deliver the guaranteed range and service?

B. Can municipal and electric utilities timely invest in the grid in order to power electric buses?

C. Which strategies will maximize Metro's ability to receive cap and trade credits?

D. How and when can charging infrastructure be deployed at our bus divisions? More importantly, how will such infrastructure be paid for?

E. Why is Metro's role critical for the adoption of low NOX engines in the trucking industry? What assurances do we have that this will take place when Metro has operated cleaner engines since the 1990s without adoption of these technologies by the trucking industry?

F. What are the resiliency impacts to our service if electricity or natural gas service is disrupted? What is our back-up plan?

G. Metro can intervene in regulatory proceedings at the California Public Utilities Commission for investor owned utilities regarding transportation electrification and equivalent natural gas proceedings as appropriate. Metro needs to assess the current regulatory schedule for such proceedings, develop advocacy position, and indicate that our adoption of electrification may be affected if electric transportation infrastructure is funded by shareholders, recovered through rates, and implemented on a timely basis.

H. Conversely, how will Metro undertake the capital investments directly? Foothill Transit has intervened in the active proceeding. Antelope Valley and other providers are engaged. Metro needs to be more actively engaged and needs to report back to our Board on what is at stake. In SCE's service area, demand charges make the operating costs of electric buses more costly than natural gas vehicles. Are we working to influence changes to the rate schedules?

I. Can RNG be adopted without direct Metro involvement by substituting RNG for natural gas purchased out of state? We should participate in any state framework that could create linkages between Metro's adoption of RNG and RNG implementation by the trucking industry.

PROCUREMENT SUMMARY

TECHNICAL CONSULTANT FOR ZERO EMISSION BUS MASTER PLAN / CONTRACT NO. PS51220

1.	**Contract Number**: PS51220			
2.	**Contractor**: ZEBGO Partners, Joint Venture			
3.	**Mod. Work Description**: See Attachment B			
4.	**Contract Work Description**: See list of pending and negotiated changes in Attachment B.			
5.	**The following data is current as of**: 2/14/22			
6.	**Contract Completion Status**		**Financial Status**	
	Contract Awarded:	10/01/2018	**Contract Award Amount:**	$7,139,376
	Notice to Proceed (NTP):	10/22/2018	**Total of Modifications Approved:**	$0
	Original Complete Date:	06/30/2020	**Pending Modifications (including this action):**	$3,500,624
	Current Est. Complete Date:	06/30/2022	**Current Contract Value (with this action):**	$10,640,000
7.	**Contract Administrator**: Greg Baker		**Telephone Number**: (213) 922-7577	
8.	**Project Manager**: Quintin Sumabat		**Telephone Number**: (213) 922-4922	

A. Procurement Background

This Board Action is to approve Contract Modification No. 8 for Contract No. PS51220 issued to provide technical consulting support services to develop comprehensive plans for phasing in zero emission buses (ZEB) on Metro's entire system, including Local and Rapid bus routes, by 2030. This Modification increases the Contract not-to-exceed (NTE) total by $3,500,624 to continue services.

This Contract Modification will be processed in accordance with Metro's Acquisition Policy and the contract type is a cost-plus fixed fee. All other terms and conditions remain in effect.

On September 27, 2018, the Board awarded Contract No. PS51220 to ZEBGO Partners, JV, for technical consultant services for the ZEB Program Master Plan, in the NTE amount of $7,139,376. Attachment B shows the list of pending and negotiated change orders.

Refer to Attachment B – Contract Modification/Change Order Log.

B. Cost Analysis

The recommended price of $3,500,624, has been determined to be fair and reasonable based upon an independent cost estimate, cost analysis, technical evaluation, fact finding, and negotiations.

Proposal Amount	Metro ICE	Negotiated Amount
$4,152,883	$3,500,624	$3,500,624

CONTRACT MODIFICATION/CHANGE ORDER LOG

TECHNICAL CONSULTANT FOR ZERO EMISSION BUS MASTER PLAN / CONTRACT NO. PS51220

Mod. No.	Description	Status (approved or pending)	Date	$ Amount
1	Modify and replace Exhibit A- Advanced Memorandum of Costs, Attachment A-1 Labor Rates; and modify Statement of Work to include Subject Matter Expert support.	Approved	12/14/18	$0
2	Modify and replace Exhibit A- Advanced Memorandum of Costs, Attachment A-1 Labor Rates	Approved	10/28/19	$0
3	Modify and replace Exhibit A- Advanced Memorandum of Costs, Attachment A-1 Labor Rates; and extend the period of performance to December 31, 2020.	Approved	4/7/20	$0
4	Extend the period of performance through June 30, 2021.	Approved	12/21/20	$0
5	Extend the period of performance through December 31, 2021.	Approved	6/30/21	$0
6	Modify and replace Exhibit A- Advanced Memorandum of Costs, Attachment A-1 Labor Rates.	Approved	7/9/21	$0
7	Modify and replace Exhibit A- Advanced Memorandum of Costs, Attachment A-1 Labor Rates; add new subcontractor to the Contract; and extend the period of performance through June 30, 2022.	Approved	10/26/21	$0
8	**Increase Contract total; modify and replace Exhibit A- Advanced Memorandum of Costs, Attachment A-1 Labor Rates; and extend the period of performance to January 2, 2024.**	**Pending**	**Pending**	**$3,500,624**
	Modification Total:			**$3,500,624**
	Original Contract:	**Approved**		**$7,139,376**
	Total:			**$10,640,000**

DEOD SUMMARY

TECHNICAL CONSULTANT FOR ZERO EMMISSION BUS (ZEB) PROGRAM MASTER PLAN/PS51220

A. Small Business Participation

ZEBGO Partners, JV (ZEBGO), a partnership formed between WSP USA, Inc. and STV Incorporated made a 17.26% Disadvantaged Business Enterprise (DBE) commitment. The contract is 57% complete and the current DBE participation is 29.36%, exceeding the DBE commitment by 12.10%.

While ZEBGO's overall DBE participation is compliant, the firm addressed the underutilization of DBE subcontractors on the team citing shifts in the amount of team members required in response to ZEBGO's needs and available DBE personnel over the course of this project, as well impacts due to repeated extensions of the contract. ZEBGO also noted that the cost-Plus-Fixed-Fee nature of this contract, as well as other contract provisions, have made utilization of staff for all firms challenging. Notwithstanding, ZEBGO has affirmed its efforts to utilize listed DBE firms as committed.

Small Business Commitment	**DBE 17.26%**	**Small Business Participation**	**DBE 29.36%**

	DBE Subcontractors	**Ethnicity**	**% Committed**	**Current Participation[1]**
1.	Advantec Consulting Engineers, Inc.	Asian-Pacific American	1.87%	0.73%
2.	Capitol Government Contract Specialist	Hispanic American	10.08%	8.00%
3.	3COTECH, Inc.	Caucasian Female	0.36%	18.81%
4.	Virginkar & Associates, Inc.	Sub-Continent Asian American	4.95%	1.82%
	Total		**17.26%**	**29.36%**

[1]Current Participation = Total Actual amount Paid-to-Date to DBE firms ÷Total Actual Amount Paid-to-date to Prime.

B. Living Wage and Service Contract Worker Retention Policy Applicability

A review of the current service contract indicates that the Living Wage and Service Contract Worker Retention Policy (LW/SCWRP) was not applicable at the time of award. Therefore, the LW/SCWRP is not applicable to this modification.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this modification.

D. Project Labor Agreement/Construction Careers Policy

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