

ADVANCED TRANSIT VEHICLE CONSORTIUM

Los Angeles County Metropolitan Transportation Authority
470 Bauchet Street, MS 30-2-1
Los Angeles, CA 90012

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John Drayton
Director, Vehicle Technology
Los Angeles Metro

Chief Financial Officer:

Josie Nicasio
Controller
Los Angeles Metro

DECEMBER 4, 2014

SUBJECT: ZERO EMISSION BUS CONTRACT

**ACTION: APPROVE RECOMMENDATIONS FOR CONTRACT CHANGES ON
CONTRACT NO. OP33202790**

RECOMMENDATION

1. Authorize and execute Contract Modifications to Contract No. OP33202790 with BYD Motors, Inc. (BYD) in the amount not to exceed \$95,818 for the installation of upgraded ADA provisions, enhanced safety provisions and vehicle charging adapters for five buses.
2. Authorize an increase in Contract Modification Authority (CMA) for Contract change authority limit from existing \$25,000 to \$100,000.
3. Increase the Capital Life-Of-Project budget to reflect the \$95,818 modification.

ISSUE

Upon ratification this action authorizes BYD to provide upgraded wheelchair accommodations, safety enhancements and charging adapters with canopies as part of the ZEB bus buy.

DISCUSSION

These buses are part of ATVC's advanced technology program to keep Metro at the forefront of future technologies in order to promote a cleaner environment.

The Board approved contract OP33202790 in June, 2013 for the procurement of up to 25 zero emission buses. The buses procured under this contract had conventional "Q-Straint" wheelchair securement devices similar to the securement equipment that is in use in the majority of Metro's bus fleet.

The revised ADA seating and securement configuration would provide a configuration similar to Metro's ongoing 550 bus procurement, allowing faster boarding and alighting of passengers.

Metro has adopted the integrated barrier system as provided on QPod or equivalent products to make wheelchair securement easier and faster at stops. Included with this forward facing restraint system is a rear-facing padded barrier to allow wheelchair passengers to simply back into the barrier. Metro is considering a change in policy to allow these rear facing passengers to dispense with use of securement devices making ingress/egress for wheelchair passengers even quicker.

In addition to ADA upgrades, an additional enhancement is the provision of curb-side lighting that is activated when buses make right hand turns. These side lights will help illuminate the area to the right of the bus anytime a bus turn signal is activated and the bus is moving less than 15 mph. This enhancement should also improve pedestrian awareness of buses when approaching for a right hand turn.

Charge adapters are required to allow charging of the battery buses for service use. The adapters minus required weather canopies are included as option pricing in the contract. Without these adapters the buses cannot be "fueled" for service.

The increase in change authority limit is necessary to allow for rapid execution changes likely to occur with execution of future contract modifications for up to 20 additional buses. All ATVC/Metro procurement guidelines will be followed for any changes that occur including written justifications where required.

Authority to negotiate and execute this contract modification is necessary to avoid any risks to the delivery schedule for the production buses. Buses are already on the assembly line with anticipated delivery dates in January, 2015 and these changes need to be approved to avoid contract delays in completion of the buses and to complete provisions for running of the buses in service.

DETERMINATION OF SAFETY IMPACT

The new ADA configuration will significantly increase the safety of wheelchair patrons riding our buses. The installation of QPod will make securing wheelchairs in the forward position significantly easier for the operator and result in less delay.

Passengers choosing to ride unsecured will be asked to use the rear facing position which research and experience has proven to be safe. The use of the new ADA equipment along with updated policy changes is expected to provide a reduction in injuries and claims.

Enhanced curbside lighting is expected to improve safety by better illuminating the right side of the bus during turns and during boarding/alighting. They are also expected to make the bus more visible to pedestrians as buses prepare to make right hand turns.

FINANCIAL IMPACT

The amount of this contract modification is \$95,818. Upon Board approval, funds will be added to the LOP budget for project 201071, Up To 25 Bus Buy in cost center 3320, Vehicle Technology.

Since this is a multi-year contract/project, the Cost Center Director, Project Manager and General Manager, Strategic Vehicle and Infrastructure Delivery will ensure that costs are budgeted in future years.

ALTERNATIVES CONSIDERED

Staff considered using conventional Q-Straint securement positions. This approach is not recommended because of the greater difficulty in using this type of system for our operators and wheelchair users. Fewer than 10% of our current wheelchair riders choose to be secured with this conventional system resulting in a high rate of wheelchair incidents and claims.

Staff allowed alternative ADA securement devices similar to Q-Pod for consideration. The competing systems are commercially available but with limited in-use transit experience.

Staff considered only providing Q-Pod securement positions without rear facing barriers. This approach is not recommended because although the Q-Pod does reduce the time needed for proper securement many of our riders prefer the independence of riding unsecured. Maintaining this freedom of choice for our riders is also important. Providing both active and passive restraint choices for our customers with disabilities improves safety and better meets the varied needs of our customers.

Staff considered not installing curbside safety lights but this action is not recommended because cornering lights are expected to enhance vehicle and pedestrian safety.

The charging adapters selected are the only devices offered that are compatible with the battery system on the buses and there are no other alternatives to using the BYD supplied equipment.

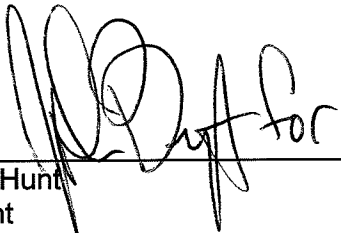
NEXT STEPS

If this action is approved, staff will issue Notice to Proceed .

ATTACHMENTS

- A. Procurement Summary
- B. Contract Modification and Change Order Log
- C. Funding/Expenditure Plan
- D. Revised ADA seating Layout
- E. List of Proposed Changes

Prepared by: John Drayton, Executive Vice President, ATVC
Phil Rabottini, Senior Engineer, LA Metro



Richard Hunt
President
Advanced Transit Vehicle Consortium

Cc: Art T. Leahy, CEO
Lindy Lee, Deputy CEO
Bill Foster, Interim COO

PROCUREMENT SUMMARY

UP TO 25 ZERO EMISSION BUSES (ZEB)/CONTRACT NO.: OP33202790

1.	Contract Number: OP33202790		
2.	Contractor: BYD Motors, Inc.		
3.	Mod. Work Description: ADA Configuration changes of the véhicules		
4.	Contract Work Description: Up to 25 Zéro Emission Buses (ZEB)		
5.	The following data is current as of: 11/21/14		
6.	Contract Completion Status		Financial Status
	01/05/15		
	Contract Awarded:	06/14	Contract Award Amount: \$,20,739,250
	Notice to Proceed (NTP):	10/11/13	Total of Modifications Approved: \$0
	Original Complete Date:	03/30/14	Pending Modifications (including this action): \$95,818
	Current Est. Complete Date:	01/05/15	Current Contract Value (with this action): \$20,835,068
7.	Contract Administrator: Elizabeth Hernandez		Telephone Number: (213) 922-7334
8.	Project Manager: Phil Rabottini		Telephone Number: (213) 922-5871

A. Procurement Background

This ATVC Board Action is to approve Contract Modification no. 1 for the installation of upgraded ADA provisions, enhanced safety provisions and other design changes. Contract Modification No. 2 was issued for the credits for technical changes initiated by BYD for vehicle component changes to passenger doors, destination signs, side windows, flooring, bike racks, fire suppression and exterior mirrors.

Approval is also requested for an increase in the Contract Modification Authority for Contract change orders from \$25,000 to \$100,000.

In June 2013, the ATVC Board of Directors approved Contract No., OP33202790 with BYD Motors, Inc. for the manufacture and delivery of up to twenty-five Zero Emission Buses for a not-to-exceed total contract value of \$20,739,250, including tax and delivery

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

B. Cost Analysis

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

Modification No.	Proposed Amount	Metro ICE	Negotiated Amount
1	\$282,480	\$180,090	\$176,575
2	(\$71,130)	(\$73,150)	(\$80,757)
			\$95,818

C. Small Business Participation

BYD America Corporation made a 5.0% SBE commitment. The project is 75% complete and the current SBE participation to date is 13.40%.

Small Business COMMITMENT	5.00% SBE	Small Business PARTICIPATION	0.12% SBE
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	SBE Subcontractor	Status	% Committed	Participation¹
1.	CR&A Custom Banner	Performing	0.08%	9.06%
2.	WTS Connects	Performing	0.04%	4.34%
Total Commitment			0.12%	13.40%

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

D. Living Wage and Service Contract Worker Retention Policy Applicability

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

CONTRACT MODIFICATION/CHANGE LOG

UP TO 25 ZERO EMISSION BUSES (ZEB)/CONTRACT NO.: OP33202790

Mod. No.	Description	Status	Cost
1	ADA and Safety configuration modifications	Pending	\$176,575
2	ATVC Credits for BYD Changes	Pending	(\$80,757)
3	Modify language for Special Provision -05 Pilot Vehicle and Special Provision -07 First Article Pre-Delivery Testing	Approved	\$0
	Subtotal – Approved Modifications		\$0
	Subtotal – Pending Changes/Modifications		\$95,818
	Total Mods and Pending Changes (including this change)		\$95,818
	Prior CMA Authorized by the Board (including base award and other modifications)		\$25,000
	Increased CMA for this recommended action		\$75,818
	Total CMA including this action		\$75,818
	Remaining CMA for Future Changes		\$25,000

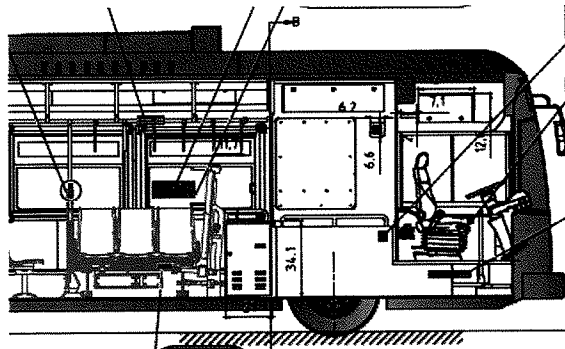
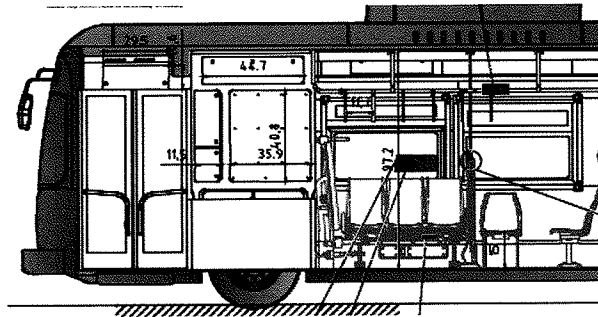
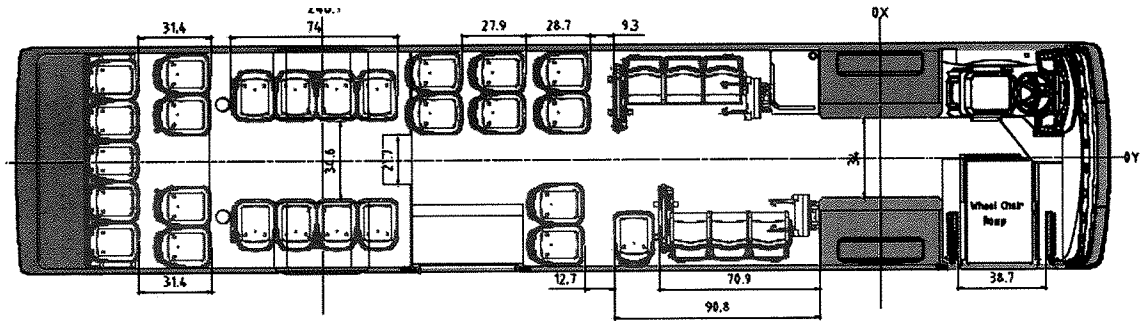
ATTACHMENT C

ZERO EMISSIONS BUS CONTRACT FUNDING/EXPENDITURE PLAN

In Thousands	FY14	FY15	FY16 +	Total	% of Total
Uses of Funds					
Acquisition	6,000,000	6,000,000	8,739,250	20,739,250	69.1%
Professional Services ¹	250,000	250,000	3,500,000	4,000,000	13.3%
Labor	300,000	300,000	300,000	900,000	3.0%
Travel	150,000	150,000	100,000	400,000	1.3%
Spare Parts ²	250,000	250,000	1,386,825	1,886,825	6.3%
Contingency			2,073,925	2,073,925	6.9%
Total Project Cost	6,950,000	6,950,000	16,100,000	\$30,000,000	100%
In Thousands	FY14	FY15	FY16 +	Total	% of Total
Sources of Funds					
Measure R 35%	6,950,000	6,950,000	16,500,000	\$30,000,000	
Total Project Funding				\$30,000,000	100%

1. Includes \$3.5 million in funding to cover estimated expenses for converting six existing gasoline hybrid buses to *super low emission configuration*.
2. Includes \$1.2 million in funding to cover estimated expenses for acquiring high voltage "Fast Charging" equipment.
3. Initial source of funds plans for Measure R 35%. Staff will apply other local, state or federal sources as they become available/applicable to project uses.

ADA Seating Layout



ATTACHMENT E

Contemplated Configuration Changes to ZEB Bus Buy

Item	Change	Description	Cost Per Bus
1.	QPod and Rear Facing Restraint	An improved restraint system incorporating integrated barriers as recommended by Metro ADA Advisory Committee. This includes two QPod forward facing securement systems and two rear facing restraints.	\$7,131.72
2.	Updated ADA Area Color Scheme	The wheelchair securement area will incorporate blue flooring and additional decals to clearly identify its use. The reserved priority seating will use special ADA blue fabric with person with a cane graphic on seat back.	\$(25.51)
3.	Improved AVA message signs	Incorporate a forward facing sign for visibility in the ADA seating areas.	\$1,224.47
4.	Improved Stop Request for Wheelchair Passengers	An improved stop request button will be provided as requested by Metro Operations for enhanced accessibility and ease of use by wheelchair passengers	\$213.62
5.	Cornering Lights	Buses will include a safety enhancement as recommended by Metro Safety to provide side cornering lights for curbside of bus. This will aid with pedestrian visibility for right-hand turns.	\$697.67
6.	Charging Adapters	Charge adapters will allow safe charging of the vehicle batteries and are integrated to work with the BYD battery system including interlocks to prevent accidental moving of vehicle during charging.	\$8,000
7.	Charger Canopies	The canopy is required to protect the charge adapter from the environment as well as provide a stable mounting for ease of use.	\$2,000