

**Board Report**

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**File #:** 2017-0304, **File Type:** Contract**Agenda Number:** 42

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**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE  
JULY 20, 2017****SUBJECT: SIXTY ZERO EMISSION 40' TRANSIT BUS CONTRACT****ACTION: AWARD CONTRACT FOR REPLACEMENT OF 40' TRANSIT BUSES****RECOMMENDATION**

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer (CEO) to award a firm fixed-price contract, Contract No. OP28367-002, Group C, to BYD Coach & Bus, LLC (BYD) for the manufacture and delivery of sixty 40' zero emission (ZE) transit buses, in the amount of \$44,967,874 for the base contract, including spare parts, charging equipment, taxes and delivery; exclusive of any contract option buses, subject to resolution of any properly submitted protest.
- B. AUTHORIZING the CEO to award an additional not-to-exceed amount of \$2,806,849 for Optional Vehicle Features, and Training Aids for a total combined contract amount not-to-exceed \$47,774,723.
- C. ESTABLISHING a life-of-project budget of \$65,900,000 for the purchase of sixty 40' zero emission buses, charging equipment, installation costs, infrastructure upgrades, and contingency under Capital Project no. 201077.

**ISSUE**

In October 2016, staff was directed to initiate plans to operate only Zero Emission (ZE) Buses on Metro's Silver Line (MSL) by approximately 2021. Further, between FY18-FY22, Metro will require up to 600 40' buses to replace existing 40' CNG buses reaching the end of their useful life.

This action authorizes the award of a contract for sixty 40' ZE buses to BYD for the replacement of retirement eligible CNG buses, and for the deployment of related charging equipment on the MSL right-of-way, Metro Division 9 in El Monte and Metro Division 18 in Carson.

**DISCUSSION**

In April 2016, Metro's Board of Directors authorized staff to initiate RFP 28367 for the procurement of up to 1,000 CNG or Zero Emission Transit Buses. RFP 28367, issued in July 2016, consists of four

parts, one for the procurement of each vehicle type:

- Group A, 40' CNG buses (base order of 295, awarded in June 2017, pending resolution of protest)
- Group B, 60' CNG buses (base order of 65, award targeted for July 2017)
- Group C, 40' ZE buses (base order of 60, award targeted for July 2017)
- Group D, 60' ZE buses (base order of 35, award targeted for July 2017)

**This recommended Board action pertains solely to Part C, 40' Zero Emission buses.**

This procurement supports both Metro's bus fleet management and replacement plans for FY18-22 and Metro's goal to transition to a 100% zero emission fleet by 2030.

To achieve these objectives, Metro's electrification plan consists of near and long term elements. The near term elements are those that may be applied now with limited risk to service while providing Metro with the needed opportunity to evaluate and initiate mitigations for real and possible impacts to service and operations. Metro's plan to transition to a 100% Zero Emission Fleet considers:

- Current status of electric bus technology
- Production
- Impact to Service
- Impact to Facilities and Infrastructure
- Impact to Operating Practices and Operating Environment
- Impact to Operator and Maintainer Training
- Service contracts with energy utilities
- Costs

In brief, it is currently not possible to immediately transition to 100% zero emission operation without significant risks to service and operation:

- Current ZE bus technologies do not permit a 1:1 replacement of CNG buses with ZE buses due to differences in costs and performance. In particular, this includes issues with ZE buses that include operating range and vehicle weight.
- Facilities and infrastructure modifications will be required to support ZE bus operation and maintenance; this will take time and money.
- There are additional unknowns about potential operating impacts related to maturity of ZE technologies, such as ZE technology maturity and battery life durability (i.e. by how much will a ZE bus's operating range degrade over time?).

- Mitigation plans need to be developed for ZE specific situations (i.e., currently there are no mitigation plans in place should a power outage occur and prevent buses from charging overnight or through-out the day).

Near term elements of Metro's ZE bus plans consist of:

1. Electrification of the Metro Orange Line by 2020 (45 ZE buses required)
  - Procurement of five 60' ZE buses from BYD (Not addressed in this Board action)
  - Procurement of 35 60' ZE buses from New Flyer (Not addressed in this Board action)
  - Procurement of five additional 60' ZE buses from New Flyer through a Lo-No Emission Grant (Not addressed in this Board action)
  - Negotiation and establishment of service contracts with energy utilities and PUC
  - Electrification of facilities, operating lines, and infrastructure
2. Electrification of Metro Silver Line by approximately 2021 (60 40' ZE buses required)
  - Procurement of 60 40' ZE buses from BYD through this Board action
  - Coordinate with Foothill Transit for Bus Bay Charging Stations
  - Identify other candidate locations along ROW for installation of opportunity chargers (potentially Harbor Gateway Transit Center in South Bay)
  - Negotiate and establish service contracts with energy utilities
  - Electrify facilities, operating lines, and infrastructure

Long term elements of Metro's ZE bus plans consist of:

- Return to the Board during FY18-FY19 timeframe, and periodically thereafter, to present plans to further expand electrification of Metro's bus transit system;
- Challenge the bus manufacturing and battery industries to develop ZEB designs that exceed Metro's goals for operating range, weight and cost;
- Develop a working group with local utilities (i.e. DWP and SCE) to ensure their support with expanding the bus charging networks at Metro operating locations; negotiate with PUC and local utilities to refine rate structures that are optimized to electric bus charging and operations;
- Work with engineering/design firms to refine optimal procedures for installing and operating bus "Depot" and en-route charging systems;
- Seek funding support for Metro's ZEB program from federal, state and local sources;
- Evaluate alternate options for procuring battery electric bus technologies, such as using

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commercial leases to help mitigate operational risks associated with batteries and/or propulsion system technologies.

### Procurement Process

Staff prioritized the review of Group C of the solicitation as these 40' zero emission buses are needed to replace 40' CNG buses that have reached the end of their service life and to ensure the electrification of the Metro Silver Line by approximately 2021.

For this contract procurement, Metro used a "Best Value" competitive negotiation process which considered such factors as:

- Broadest possible range of competing products and materials available
- Fitness for purpose
- Manufacturer's warranty
- Performance and Reliability
- Life Cycle Costs
- Delivery Schedules
- Support logistics
- Scoring incentive for local (CA) job creation

For this solicitation, Metro provided an additional scoring incentive for proposers who committed to local job creation. The Local Employment Program (LEP) is a voluntary FTA approved pilot for Metro's Rolling Stock procurements. The LEP provides proposers with incentive points for creating new jobs in California and for geographical preferences to be applied as part of Metro's evaluation scoring. BYD, the recommended awardee, committed to creating 68 new FTEs with wages, benefits, and facility improvements totaling \$4.56 million for the Base award, and \$8.41 million for the Base and Option quantities.

The Diversity and Economic Opportunity Department did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this rolling stock procurement. Transit Vehicle Manufacturers (TVM), as a condition of authorization to bid or propose on FTA-assisted transit vehicle procurements, must certify that it has an FTA approved DBE overall goal methodology in compliance with 49 Code of Federal Regulations (CFR) Part 26.49(a)(1). BYD is currently on FTA's list of eligible TVMs, and is certified at a 7.0% DBE goal level. In compliance with 49 CFR Part 26.49, TVMs report direct to FTA.

### **DETERMINATION OF SAFETY IMPACT**

There will be anticipated safety improvements for operating these new battery electric buses in Metro's bus fleet. These buses will also incorporate the latest safety features and designs, including

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improved ADA amenities and boarding ramps. The batteries and high voltage powertrain equipment on these buses includes special safety provisions, and “Locks out” employee access while they are energized. New buses also will provide a safer, cleaner environment for Metro patrons and employees.

### **FINANCIAL IMPACT**

Total LOP funding of \$65,900,000 will be included in Cost Center 3320 - Vehicle Technology, in project 201077. For FY18, \$18,873,000 is programmed to cover expenses for purchasing these buses. Because this is a multi-year contract, the Cost Center Manager will be responsible for ensuring that future year funding is programmed.

#### **Impact to Budget**

The current source of funds for this action is Prop C 40% Bonds, which are eligible for this project. This funding source is currently sufficient to award the contract base of this recommendation. Staff is pursuing additional Federal, State and Local funding sources such as Cap and Trade and similar sources as they become available.

### **ALTERNATIVES CONSIDERED**

In addition to this Board action, staff considered awarding 45 additional ZE 60' buses, as included in Group D, to cover Metro's Silver Line BRT service but due to roadway concerns and Caltrans resurfacing of the HOT lanes on the 110 freeway in the next few years, the additional ZE buses will be awarded under a separate Board action.

Staff considered purchasing CNG replacement buses to cover this service, or continue using existing 45' CNG buses. In both cases, these options are not recommended as they would not comply with Metro Board's directives to operate zero emission buses on the Metro's Silver Line corridor.

### **NEXT STEPS**

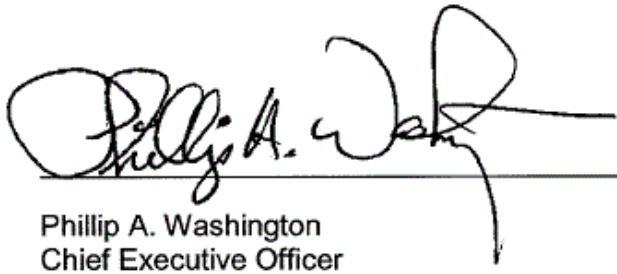
Upon Board approval, staff will execute the contract with BYD and issue a Notice to Proceed.

### **ATTACHMENTS**

Attachment A - Procurement Summary  
Attachment B - DEOD Summary  
Attachment C - Funding/Expenditure Plan

Prepared by: John Drayton, Director of Vehicle Technology, (213) 617-6285  
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Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108  
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Phillip A. Washington  
Chief Executive Officer

## PROCUREMENT SUMMARY

SIXTY 40-FOOT ZERO EMISSION TRANSIT BUS CONTRACT /  
OP28367-002 (Group C)

1.	<b>Contract Number:</b> OP28367-002	
2.	<b>Recommended Vendor:</b> BYD Coach & Bus, LLC (BYD)	
3.	<b>Type of Procurement (check one):</b> <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	<b>Procurement Dates:</b>	
	<b>A. Issued:</b> 07.29.16	
	<b>B. Advertised/Publicized:</b> 08.04.16; 08.08.16; 08.12.16; 08.15.16	
	<b>C. Pre-Proposal Conference:</b> 08.30.16	
	<b>D. Proposals Due:</b> 02.10.17	
	<b>E. Pre-Qualification Completed:</b> July 12, 2017	
	<b>F. Conflict of Interest Form Submitted to Ethics:</b> 07.03.17	
	<b>G. Protest Period End Date:</b> 07.28.17	
5.	<b>Solicitations Picked up/Downloaded:</b> 63	<b>Bids/Proposals Received:</b> 3
6.	<b>Contract Administrator:</b> Elizabeth Hernandez	<b>Telephone Number:</b> (213) 922-7334
7.	<b>Project Manager:</b> John Drayton	<b>Telephone Number:</b> (213) 617-6285

**A. Procurement Background**

This Board Action is to approve Contract No. OP28367-002 issued in support of Metro's bus fleet replacement plan to procure new 40' Zero Emission (ZE) buses for the replacement of retirement eligible CNG buses, and for the initial deployment of related charging equipment on the Metro Silver Line (MSL) right-of-way, Metro Division 9 in El Monte and Metro Division 18 in Carson. The RFP solicitation Group C – 40' ZE bus Base Buy consists of 60 base buy ZE buses, with option orders of up to 40 additional buses for a total of 100 40' ZE buses. Board approval of contract awards are subject to resolution of any properly submitted protest.

The RFP was issued in accordance with Metro's Acquisition Policy and the contract type is a firm fixed unit price.

Thirty amendments (30) were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on 08.03.16, updated the required certifications;
- Amendment No. 2, issued on 08.08.16, provided revised Pre-Proposal Conference date and venue;
- Amendment No. 3, issued on 08.11.16, updated due dates for requests for approved equals and clarifications;
- Amendment No. 4, issued on 08.26.16, edited the submittal forms and technical specifications;
- Amendment No. 5, issued on 09.07.16, extended the proposal and clarifications requests due dates, edited submittal forms and technical

specifications, and established a project data repository for plan holder access to RFP documents;

- Amendment No. 6, issued on 09.16.16, extended the proposal and clarifications requests due dates, edited submittal forms and technical specifications, and scheduled on site bus inspections for proposers;
- Amendment No. 7, issued on 09.30.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 8, issued on 10.14.16, edited pricing and clarification request forms, technical specifications, and commercial terms and conditions;
- Amendment No. 9, issued on 11.02.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 10, issued on 11.07.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 11, issued on 11.10.16, extended the due dates for Groups A and B, 40' and 60' CNG proposals, and edited commercial terms and conditions;
- Amendment No. 12, issued on 11.22.16, edited pricing and submittal forms;
- Amendment No. 13, issued on 12.12.16, extended the due dates for Groups C and D 40' and 60' zero emission bus proposals;
- Amendment No. 14, issued on 01.12.17, edited commercial terms and conditions for Group A;
- Amendment No. 15, issued on 01.13.17, extended the due dates for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 16, issued on 01.26.17, extended the due dates for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 17, issued on 01.31.17, edited pricing forms and technical specifications for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 18, issued on 02.06.17, edited pricing forms for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 19, issued on 02.10.17, solicited best and final offers (BAFO) from Group A proposers;
- Amendment No. 20, issued on 02.24.17, edited documents for Group A;
- Amendment No. 21, issued on 02.28.17, edited documents for Group A;
- Amendment No. 22, issued on 03.30.17, solicited BAFO from Group A proposers;
- Amendment No. 23, issued on 05.05.17, solicited BAFO from Group D proposers;
- Amendment No. 24, issued on 05.05.17, edited documents for Group B proposers;
- Amendment No. 25, issued on 05.09.17, solicited conforming offer for Group B proposer;
- Amendment No. 26, issued on 05.10.17, edited documents for BAFO from Group D proposers;
- Amendment No. 27, issued 05.11.17, edited due date for submittal for Group B proposer;



- Amendment No. 28, issued 06.02.17, edited documents for Group C proposers;
- Amendment No. 29, issued 06.07.17, solicited BAFO from Group C proposers;
- Amendment No. 30, issued 06.13.17, edited documents for BAFO from Group C proposers.

A pre-proposal conference was held on August 30, 2016. On-site bus inspections were performed on October 4, 5, and 6, 2016. A total of three proposals were received for Group C on February 10, 2017.

Questions received throughout the solicitation process and Metro’s responses to those questions were made accessible to the RFP plan holders by posting them at Metro’s project data repository. Nine sets of Questions and Answers were issued for a total of 754 questions and answers uploaded to the repository from August 12, 2016 to December 30, 2016. Proposers for Group C 40’ ZE buses requested, and Metro granted, several extensions changing the proposal due date from the initial date of December 2, 2016 to February 10, 2017.

The proposal evaluation period, from February 13, 2017 through July, 2017, included reviews of the written proposals, clarifications requests and responses, oral presentations, proposers’ manufacturing and engineering site visits, face-to-face and conference call discussions, and transit agency reference checks. These series of evaluation processes were necessary to assess and determine the proposers’ strengths and weaknesses in their respective technical and price proposals.

**B. Evaluation of Proposals**

A Proposal Evaluation Team (PET) consisting of staff from Metro’s Vehicle Technology and Acquisition, Maintenance, and Operations was convened and conducted a comprehensive technical evaluation of the proposals received.

The proposals were evaluated based on the following evaluation criteria and weights:

• Technical Compliance	400 points
• Price	300 points
• Project Management Experience	100 points
• Experience and Past Performance	100 points
• Life Cycle Costs	<u>100 points</u>
Sub-Total	1,000 points
• Voluntary Local Employment Program (Incentive Points)	<u>50 points</u>
Total Available Points	1,050 points

The evaluation criteria are appropriate and consistent with criteria developed for other, similar bus procurements. Several factors were considered when developing these weights, giving the greatest importance to the technical compliance of the proposed bus.

The Local Employment Program (LEP) is a FTA approved pilot for Metro's Rolling Stock procurements. The LEP allows for geographical preferences to be applied as part of Metro's evaluation scoring. The voluntary program provides proposers with incentive points for creating jobs in California. Participation in the voluntary program is not a condition for award.

Proposers are listed below in alphabetical order:

1. BYD Coach & Bus, LLC (BYD)
2. New Flyer of America Inc. (NFA)
3. Proterra Inc. (Proterra)

The PET began its review of the written technical proposals submitted by the three proposers on February 13, 2017. On or about March 13, 2017, based on the PET's initial review, clarification request letters were issued to proposers regarding the proposal submittals. In addition, 167 clarifications on technical submittals for Group C were sent to the proposers and the appropriate responses were received and reviewed accordingly.

As part of the evaluation process the PET conducted site visits of all three proposers in April and May 2017. The agenda for the site visits included facility/plant/site manufacturing process tour. All three proposers provided in depth presentations and discussions by the Proposer's management, engineering and project key personnel on the following topics:

1. Technical Proposal – Detailed presentations of the proposed vehicle systems and sub-systems vis-à-vis Metro's technical specifications;
2. Project Management;
3. Experience and Past Performance;
4. Consolidated comments and discussions of the strengths, weaknesses, deficiencies, and risks in the technical Proposals as noted by the PET in the individual evaluations.

The PET was supported by Consultant Technical Advisors (TAs) with subject matter expertise relative to the review, evaluation, assessments, and recommendations for the Life Cycle Costs (LCC) and Local Employment Program (LEP) submittals. The TAs comments and findings on the strengths, weaknesses, and deficiencies in the proposed Local Employment Plan were discussed with the respective Proposers. All three proposers presented Local Employment Plans.

A total of 88 Requests for Deviations were submitted by the Proposers for Metro's review and consideration. The deviations were discussed individually with the Proposers during negotiation discussions conducted in May and June 2017.

The PET determined all Proposers to be in the competitive range and the invitation to submit their best and final offer was issued on June 7, 2017. Resolution of acceptable and unacceptable deviations necessitated that Best and Final Offers be submitted by the Proposers.

### **Best and Final Offer (BAFO)**

Best and Final Offer (BAFO) submittals were received on June 21, 2017, and were reviewed and evaluated by the PET. The PET reviewed the BAFOs and prepared a recommendation for award memorandum on July 10, 2017.

### **Qualifications Summary of Firms within the Competitive Range:**

#### **BYD Coach & Bus, LLC**

BYD Coach & Bus, LLC is a bus and coach manufacturing division under BYD Heavy Industries which has been open at its current location in Lancaster, California since 2013. BYD proposes to build LACMTA bus orders at the Lancaster facility. The U.S. parent company is BYD Motors, Inc. with corporate offices located in downtown Los Angeles. BYD has globally supplied fully electric and plug in hybrid vehicles. BYD has delivered ZE buses to various transit agencies that include Albuquerque, IndyGo, LANE Transit, Tri-Delta, AVTA, Long Beach, Sunline, Soltrans, G-Trans, and LACMTA.

BYD's proposal ranked second in technical compliance and life cycle costs, and third in project management, and experience and past performance. BYD is ranked first in price and ranked first in dollar value for jobs creation and facility capital investment for the Local Employment Plan. BYD was ranked first overall among the Proposers.

#### **New Flyer of America Inc. (NFA)**

NFA is a North Dakota corporation organized in October 1989 and is a wholly owned subsidiary of Transit Holdings, a holding company that owns New Flyer of America, Inc. and New Flyer Industries Canada ULC.

NFA proposes to build LACMTA bus orders in its St. Cloud, Minnesota and Ontario, California facilities. The St. Cloud plant is a production and finishing facility. The Ontario, California plant houses production, service and aftermarket parts. NFA's transit agency clients include several cities in Canada and the United States that include WMATA, San Francisco Muni, Maryland Transit, OCTA, MBTA, NYCTA, Foothill Transit and LACMTA.

NFA scored third in technical compliance, second in project management, and first in experience and past performance. NFA is ranked second in price and first in life cycle costs. NFA did not receive any incentive points for its Local Employment Plan due to a deficient Local Employment Plan submittal that was deemed non-responsive. NFA was ranked third overall among the Proposers.

### **Proterra Inc. (Proterra)**

Proterra is a privately held corporation founded in 2004. Proterra currently operates out of three facilities:

1. Burlingame, California - corporate headquarter and Advanced Battery Research and Design Center and Battery Manufacturing facility;
2. City of Industry, Los Angeles, California - West Coast manufacturing facility; and
3. Greenville, South Carolina - East Coast manufacturing facility, vehicle engineering headquarters, and on route charging equipment manufacturing facility.

Proterra builds and manufactures electric buses only. Its transit agency clients include SEPTA, Foothill Transit, RTC Washoe County (Reno), Tri Delta Transit, King County Metro, Santa Clara Valley Transportation Authority, Dallas Area Rapid Transit, San Antonio VIA Metropolitan Transit, and New York City MTA.

Proterra was ranked first in Technical Compliance and Project Management criteria. It ranked second in Experience and Past Performance. Proterra scored third in price and life cycle cost. Proterra did not receive any incentive points for its Local Employment Plan due to a deficient Local Employment Plan that was deemed non-responsive. Proterra was ranked second overall among the Proposers.

1	Firm	Average Score*	Factor Weight	Weighted Average Score	Rank
2	<b>Firm 1 - BYD</b>				
3	Technical Compliance	68.45	400	273.81	
4	Price	100.00	300	300.00	
5	Project Management	61.69	100	61.69	
6	Experience and Past Performance	50.88	100	50.88	
7	Life Cycle Costs	95.62	100	95.62	
8	Local Employment Plan	100.00	50	50.00	
9	Total		<b>1050</b>	<b>832.00</b>	<b>1</b>
10	<b>Firm 2 - NFA</b>				
11	Technical Compliance	68.33	400	273.32	
12	Price	83.85	300	251.55	
13	Project Management	76.75	100	76.75	
14	Experience and Past Performance	71.81	100	71.81	
15	Life Cycle Costs	100.00	100	100.00	
16	Local Employment Plan	0.00	50	0.00	
17	Total		<b>1050</b>	<b>773.43</b>	<b>3</b>
18	<b>Firm 3 - Proterra</b>				
19	Technical Compliance	84.53	400	338.12	
20	Price	78.92	300	236.76	
21	Project Management	76.88	100	76.88	
22	Experience and Past Performance	70.38	100	70.38	
23	Life Cycle Costs	87.26	100	87.26	
24	Local Employment Plan	0.00	50	0.00	
25	Total		<b>1050</b>	<b>809.40</b>	<b>2</b>

\* Average score rounded to the nearest the 1/100<sup>th</sup>.

### **C. Cost/Price Analysis**

The recommended price has been determined to be fair and reasonable based upon adequate price competition, an Independent Cost Estimate (ICE), technical evaluation, fact finding, and negotiations. The Base and Option vehicles are based on Firm Fixed Unit Rate prices. The Optional Vehicle Features are also based on Firm Fixed Unit Prices for total Base Buy and Option Buy quantities. There is no obligation to purchase any Option buses. Option vehicles may be ordered in minimum increments of 10 buses.

	Proposer Name	Initial Proposal Amount**	Base Buy (60)**	Option Buy (40)**	Optional Features***	Negotiated or NTE amount (BAFO)
	Metro ICE*	N/A	\$45,000,000.00	\$30,000,000.00	N/A	\$75,000,000.00
1.	BYD	\$79,371,550.21	\$44,967,873.91	\$30,052,078.53	\$2,806,849.10	\$77,826,801.54
2.	NFA	\$84,453,143.66	\$53,230,780.79	\$33,294,572.42	\$6,289,375.14	\$92,814,728.35
3	Proterra	\$80,612,800.00	\$57,331,254.65	\$37,919,918.10	\$3,361,697.04	\$98,612,869.79

\*Note: Metro's estimate for unit pricing of \$750,000 per bus did not include pricing for Optional Features or enroute/opportunity and shop chargers.

\*\* Initial solicitation was for 5 base buy and up to 95 option buses. BAFO solicited for 60 base buy and 40 option buses.

\*\*\* Pricing Form for Optional Vehicle Configuration included items for alternative ADA securements, APC, enhanced camera systems, USB, wireless stops, spares, special tools, DTE, training aids, etc.

The PET determined that BYD's proposal provides the Best Value and is most advantageous to Metro. Price analysis shows that BYD's price is \$21 million lower than the second highest overall rated firm, Proterra, and 15 million lower than the third overall rated firm, NFA. BYD's proposal, from a Best Value perspective, offers Metro advantages in Price and local job creation over Proterra and NFA.

### Local Employment Program

All three firms submitted proposals for Metro's voluntary Local Employment Program (LEP). This participation is intended to provide incentive points based on total proposed wages, benefits and training of new employees hired in California and also provides points for facility improvements made to facilities in California.

BYD was awarded the full 50 incentive points based on its total commitment of \$8,412,530 in proposed wages, benefits and training of new employees hired in California and facility improvements in its facility in Lancaster, California. The LEP submitted by NFA and Proterra were found to be non-responsive and were not awarded any incentive points.

The table below describes the commitment level for all BYD for new local jobs and facility improvements.

Proposer:	BYD
Total Local Employment, Facility and Training Investment	\$8,412,530

### D. Background on Recommended Contractor

The recommended firm, BYD Coach & Bus, LLC (BYD), is a bus manufacturing division under BYD Heavy Industries. BYD opened its North American electric bus manufacturing facility in Lancaster, California in May 2013. BYD proposes to build the LACMTA buses under this Contract at the Lancaster location. BYD is currently conducting a three phase planned major expansion of its manufacturing facility in

Lancaster to increase production capability of the plant. BYD provided five 40' zero emission buses to LACMTA in a prior contract. BYD proposes a bus powered with its self-developed lithium iron phosphate battery.

DEOD SUMMARY

**SIXTY ZERO EMISSION 40' TRANSIT BUS CONTRACT / OP28367-002 (Group C)**

**A. Small Business Participation**

The Diversity and Economic Opportunity Department (DEOD) did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this rolling stock procurement. Transit Vehicle Manufacturers (TVM), as a condition of authorization to bid or propose on FTA-assisted transit vehicle procurements, must certify that they have an FTA approved DBE overall goal methodology in compliance with 49 Code of Federal Regulations (CFR) Part 26.49(a)(1). BYD Motors submitted an FY17 TVM Certification with their proposal, and is currently on FTA's list of eligible TVMs. In compliance with 49 CFR Part 26.49, TVMs report directly to FTA.

**B. Living Wage and 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.



**Funding and Expenditure Plan  
Sixty 40' Zero Emission (ZE) Transit Buses (Part C)**

In Thousands	FY18	FY19	FY20	Total LOP	% of Total
<b>Uses of Funds</b>					
Vehicles	\$4,500,000	\$36,000,000	\$4,467,874	\$44,967,874	68.2%
Chargers - en route	\$1,050,000	\$0	\$0	\$1,050,000	1.6%
En-route Charger Infrastructure Upgrades *	\$7,808,000	\$0	\$0	\$7,808,000	11.8%
Optional Vehicle Features	\$0	\$2,806,849	\$0	\$2,806,849	4.3%
Depot Charger Infrastructure Upgrade*	\$5,000,000	\$0	\$0	\$5,000,000	7.6%
Labor	\$500,000	\$900,000	\$807,277	\$2,207,277	3.3%
Travel/Administration	\$15,000	\$30,000	\$15,000	\$60,000	0.1%
Contingency	\$0	\$0	\$2,000,000	\$2,000,000	3.0%
<b>Total Project Costs</b>	<b>\$18,873,000</b>	<b>\$39,736,849</b>	<b>\$7,290,151</b>	<b>\$ 65,900,000</b>	<b>100.0%</b>

\*Estimates Until Contractors are Identified

In Thousands	FY18	FY19	FY20	Total LOP	% of Total
<b>Sources of Funds</b>					
PC40 Bonds	\$ 18,873,000	\$ 39,736,849	\$ 7,290,151	\$ 65,900,000	100.0%
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
<b>Total Project Funding</b>	<b>\$ 18,873,000</b>	<b>\$ 39,736,849</b>	<b>\$ 7,290,151</b>	<b>\$ 65,900,000</b>	<b>100.0%</b>

Current source of funds for this action is PC40 Bonds, which are eligible for this project.

The funding sources under this project are currently sufficient to award the contract base of this recommendation.

Staff is pursuing additional State and Local funding sources such as Cap and Trade and Similar sources as they become available