

ADVANCED TRANSIT VEHICLE CONSORTIUM

Los Angeles County Metropolitan Transportation Authority
One Santa Fe Ave., MS 63-4-1,
Los Angeles, CA 90012

November 5, 2015
2:00 P.M.

RECAP of Proceedings

Regular Board Meeting ATVC Board of Directors

LACMTA Headquarters
One Gateway Plaza
3rd Floor Board Room

Called to Order at 2:09 p.m.

Directors/Alternates Present:

Michael Cano (Chair)
John Fasana
Borja Leon
Ben Benoit

Officers

Richard Hunt, President
John Drayton, Executive Vice President
Donna Mills, Chief Financial Officer
Michelle Jackson, Board Secretary

1) APPROVE minutes of Board Meeting held July 15, 2015

<u>ACTION TAKEN:</u> APPROVED				
BB	BL	MC (Chair)	JF	AN
Y	Y	Y	A	A

2) ATVC President's Report

<u>ACTION TAKEN:</u> RECEIVED				
BB	BL	MC (Chair)	JF	AN
P	P	P	P	A

3) RECEIVE AND FILE - Status Updates on ATVC Activities

a) Update on Operating Locations for Zero Emission Buses

To be used at Division 1 starting next week. Received bus in June – beginning operator, mechanical training and testing – then started receiving nuisance calls. The buses were taken back to Lancaster to rework them so that they would all be the same in construction and configuration. They were returned to us in mid-October. They now have 10,000 miles on them. Have had a high number of road calls. Most are learning curve issues. They are also running on Lines 16 and 18 on a 71 mile per day route length. Longest run was 109-110 miles which used about 70% of the charge. Looking for more than 100 miles in service.

Antelope Valley is running a couple of buses, but our Division 1 is much more difficult.

Director Fasana asked the range of miles we are looking for to say these are viable for our fleet. BYD stated they would have 150 mile range. We see a 10% increase annually in battery capacity and a push to make the buses lighter. We need them to become lighter and more efficient and we're hoping for a range of 200 miles.

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BB = Ben Benoit (Parker Alternate)	BL = Borja Leon (Garcetti Alternate)	MC = Michael Cano (Antonovich Alternate)	JF = John Fasana	AN = Ara Najarian
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LEGEND: Y = YES , N = NO, C = CONFLICT, ABS = ABSTAIN, A = ABSENT, P = PRESENT

(Item 3A - continued from previous page)

Foothill is ordering the Compo from Protera which weighs less than 27,000 lbs. China is running buses off of capacitors with instant recharging at the stops. We have used capacitor storage in the past, but they don't have the same amount of energy storage as a battery. We are following them and will keep you abreast of changes.

b) Update on Funding Opportunities

We are working with the Grants Department to apply for a NoLo grant for battery electric articulated buses. Submitting updated proposal as we speak. Funding is also available through the FTA. We think this bus on the Orange Line would make good sense for a pilot program. Partnering with New Flyer on this and they are working with us on our grant application.

Cano asked if it would be preferable to regionalize the application. Richard Hunt will try to get a response from our grants people. Cano said we need to get them talking to the legislative team.

c) Update on 10 Year Bus Fleet Forecast

10 year service hours projected to be flat. Expect to replace 200 buses per year for the next four years. That will include some number of artics. See bus fleet management plan which is available on line or we could send you a printed copy if you would like.

Director Fasana asked how the 642 compo buses are holding up. Can we repower them or do they need to be replaced.

Richard Hunt said when those buses were purchased, we projected an 18 year life. They are holding up extremely well. We would have to update vehicle axles and transmissions. Nabi has the molds from New Flyer but are not interested in making new ones because of the startup cost. Compos should last 20-24 years and beyond. There is no defatation or corrosion. Hunt will follow up on what could possibly be done with the Compo shells held by New Flyer.

Borja looking at Table 2.4, when is the next procurement? R. Hunt said FY18/19/20/21 delivery will begin solicitation in FY17 for 6-800 buses over a 3-4 year period. Borja – where do you see the zero emission market heading in the next few years with a 200 mile range? Hunt doesn't think it will happen in the next 3 years. We also need to focus on the "near" zero emission engine. This should be available late next year. Borja suggested purchasing some of the zero emission buses when they are available. Hunt responded that CNG, near zero and zero are included in our next procurement.

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Gallagher – The assumptions in this plan are what we know today. We will update the procurement implications as we move forward.

Cano – What is the most pressing deadline we are facing?

Hunt – Expect Carb to implement their fleet rule next year but we don't know what it will be.

Fuel cell, battery electric or trolley – fuel cell is not economically viable -- \$800,000 to replace the fuel cell. 15% of future purchases will have to be zero emission if the current rule doesn't change next year. We have significant infrastructure concerns.

Fasana – Have we looked at swappable batteries? Hunt said yes; they don't have a demonstration setup, it's just an idea at this point. Suggested they meet with our new executive officer.

B. Benoit – Working with Carb to include accepting – now compatible with an electric bus. Currently working with Gas Co. on one. Need to work with AQMD and our legislative team.

d) Update on Impacts to Roadways of Zero Emission Buses

Hunt commented on impact to roadways from zero emission buses – 25,000 lbs per axle curb weight.

e) Update on Other USA Transit Properties Running Zero Emission Buses

Protera has delivered 60 with another 120 on order.

Others operating them are Foothill, Litchfield, Tallahassee, Stockton, Wooster, Seneca and Louisville. New Flyer has them in Chicago and Winnipeg.

Protrera's are 35,000 lbs with rooftop charger. That's been a problem for us to consider. Can charge from 60% to 100% in about 5 minutes; then it's out for an hour and back to charge. We don't own the facilities where our buses layover. We do have that opportunity on the Orange Line. The Silver Line might also work. Aside from the required infrastructure, we have faith in the technology. At some point we will run a bus until it stops on the street to see what the real capacity and range would be.

Fasana asked – how do you avoid deadheading and still be able to charge?

Borja wants more detail about in route charging, cost, etc. for the next meeting.

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Delta in weight BYD vs. Protera, 40 ft. Compo Protera is 27,000lbs and \$750,000 ea. Our current BYD bus is 6,600 lbs with a steel chassis with bolted aluminum frame.

Hunt noted that we might want to include life cycle costing in the RFP.

<u>ACTION TAKEN:</u> RECEIVED AND FILED				
BB	BL	MC (Chair)	JF	AN
Y	Y	Y	Y	A

4) PUBLIC COMMENT

<u>ACTION TAKEN:</u> NONE				
BB	BL	MC (Chair)	JF	AN

5) Consider items not on the posted agenda, including:

items to be presented and (if requested) referred to staff; items to be placed on the agenda for action at a future meeting of the Board; and items requiring immediate attention because of an emergency situation or where the need to take immediate action came to the attention of the Board subsequent to the posting of the agenda.

6) ADJOURNED at 3:05 p.m.

Prepared by: Collette Langston, Board Specialist