

**LONG BEACH TRANSIT  
BOARD OF DIRECTORS MEETING  
MINUTES**

**TUESDAY, MARCH 31, 2015  
MARK TWAIN LIBRARY  
1401 E. ANAHEIM STREET, 2:00 PM**

Barbara Sullivan George, Chair  
Maricela de Rivera, Vice Chair  
Sumire Gant, Secretary/Treasurer  
April Economides, Director  
Victor Irwin, Director



Nancy Pfeffer, Director  
Mary Zendejas, Director  
Amy Bodek, City Representative  
Ara Maloyan, City Representative

President and Chief Executive Officer  
Kenneth A. McDonald

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**FINISHED AGENDA AND DRAFT MINUTES**

**Special Meeting - 2:00 P.M.**

1. Call to Order. Barbara Sullivan George
2. Roll Call. Sarah Miller

**CITY REPRESENTATIVE:**

Amy Bodek, Director of Development Services  
Ara Maloyan, Director of Public Works

**ALSO PRESENT:**

Kenneth A. McDonald, President and Chief Executive Officer  
Debra A. Johnson, Deputy Chief Executive Officer  
Vincent C. Ewing, General Counsel  
Lisa Patton, Executive Director and Vice President of Finance and Budget  
Lee Burner, Executive Director and Vice President of Transit Service Delivery and Planning  
LaVerne David, Executive Director and Vice President of Employee and Labor Relations  
Rolando Cruz, Executive Director and Vice President of Maintenance and Infrastructure  
Patrick Pham, Executive Director and Vice President of Information Technology  
Sarah Miller, Board Secretary  
Ivette Gonzalez, Office Administrator

**Commissioners** Barbara Sullivan George, Maricela de Rivera, Sumire Gant, April  
**Present:** Economides, Nancy Pfeffer, Victor Irwin and Mary Zendejas

3. Closed Session:

CONFERENCE WITH LEGAL COUNSEL--ANTICIPATED LITIGATION  
(Gov. Code § 54956.9) (one case)

No actions were taken during Closed Session.

4. [15-018TR](#) Battery Electric Bus Project Study Session. Kenneth McDonald

**Debra Johnson, Deputy CEO, served as the facilitator of the session and presented the Meeting Purpose.**

**Vince Ewing, General Counsel, provided an overview of the legal guidelines, highlighting the following:**

Procurement Roles  
California Ralph M. Brown Act-Open Meeting Law  
RFP Blackout Period  
Third Party Contracting Guidance  
-FTA Circular C 4220.1F  
-California Public Contracts Code Section 20217 (Transportation Agencies)

**Kenneth McDonald, President and CEO, presented the Project Overview, highlighting the following:**

1. Alternative Fuels Policy
2. Zero Emission Project Objectives
3. Grant Process
4. Original Request for Proposal
5. Current Request for Proposal

Director Economides asked for elaboration on how the communication and transparency between Long Beach Transit (LBT) and the Board of Directors has improved since the last battery bus procurement.

Kenneth McDonald answered that LBT began having meetings between the Board of Directors' Executive Committee and the LBT Executives involved in the procurement. The Board has been involved throughout the entire process and their input has been taken into consideration. In addition, LBT proactively scheduled this study session to better prepare the Board to take action at the April 27, 2015 regular session Board meeting, when staff will bring a recommendation on this matter to the Board.

Director Economides asked for clarification on the timeline provided, as it pertains to the communications plan. She noted that the timeline states that there was a recommendation in January, and in February there was a final recommendation.

Kenneth McDonald answered that LBT was faced with delays. LBT was expecting to go to the Board with a final recommendation in February, but after

reviewing the evaluation process the timeline was extended so a proper analysis of the proposals could be performed.

Director Economides requested clarification in tab R of the Battery Electric Bus material provided to the Board, and asked if the presentation was for the Federal Transit Administration (FTA) regional group.

Kenneth McDonald confirmed that the presentation was for the FTA regional office. When LBT met with the FTA in Washington D.C., both parties agreed that LBT would present their plan to the regional office to keep them apprised of the process. The regional office will then forward the information to the Washington D.C office.

Director Pfeffer asked if there are any battery electric buses being operated now in a similar kind of service.

Kenneth McDonald stated that there are battery electric buses in service at Stanford University, which has an extensive service area. He noted that Vice Chair de Rivera had requested LBT staff visit Stanford to witness the battery electric buses in service. Kenneth McDonald, Rolando Cruz, Dennis Elefante and Steve Claremont visited the university and rode a battery electric bus.

Kenneth McDonald also noted that Debra Johnson, Karissa Selvester and he visited Foothill Transit to look at their operations in service, as they also have a battery electric buses.

**Rolando Cruz, Executive Director and Vice President of Maintenance and Infrastructure, presented the Project Implementation, highlighting the following:**

1. Project Goals
2. Project Team
3. Project Budget
4. Project Milestones
5. Request for Proposal (RFP) preparation
6. Evaluation Process

Director Economides requested more information on the Buy America requirements and what the Transit Investments for Greenhouse Gas and Energy Reduction (TIGGER) grant hopes to achieve. She noted a difference between the requirements and the hopes of the grant.

Rolando Cruz stated that 60 percent of bus materials and final assembly of the buses must occur in the United States. As part of the process, LBT would verify that the manufacturer complies with that requirement. LBT would look at the list of materials provided by the manufacturer and verify that the assembly of the

bus is occurring in the U.S. In regards to the charging equipment, the grant requires 100 percent of the materials are assembled in the U.S.

Director Economides asked if there was any part of the TIGGER grant, requirements aside, that stated the grant was looking to advance these types of technologies specifically in the U.S.

Rolando confirmed that the only requirement is the Buy America requirement. He further stated that part of the process requires that LBT perform a pre-award certification. LBT is also required to do a post-build audit against Buy America.

Secretary/Treasurer Gant asked if LBT knows how many companies meet the Buy America requirement for their electric buses.

Rolando Cruz stated that LBT has not verified any company's certification; right now, the three largest companies are New Flyer, Proterra, and Build Your Dreams (BYD) of America.

Secretary/Treasurer Gant asked how many electric buses are in service in a similar environment.

Rolando Cruz stated that information on that topic will be discussed in more detail at the April 27, 2015 Board meeting. He added that LBT has a full market survey that discusses the number of battery electric buses that are developed and operational, where they were built and how many miles travelled. He confirmed that LBT staff has done a study on the electric buses currently in service.

Vince Ewing added that this study session is not to include the evaluative process which will be presented on April 27, 2015; he stated that it would be beyond the scope of this study session.

Kenneth McDonald noted that LBT does have the information on how many buses are currently in service, and LBT will provide that information to the Board.

Director Pfeffer asked for explanation of the Altoona testing.

Rolando Cruz stated that the FTA has developed guidelines for testing of a new bus. This testing is federally funded. The testing runs the bus through hard studies over a span of one year and a total mileage of 15,000 miles. Examples of the tests include placing sand bags inside of the bus to simulate carrying people onboard and having the bus go over speed bumps, etc. They run these tests in a short time frame and try to replicate the impact of the life of the bus in 15,000 miles. Each bus manufacturer has to go through that testing and the FTA evaluates how the bus operated and monitors if and when it broke down.

There are Class One incidents and Class Two incidents. Once the manufacturer receives their evaluation they have to respond with a plan on how to address the issues discovered in the testing, in order to ensure the production buses do not have the same issues. It is a testing standard that every bus manufacturer has to go through. Within LBT's Request for Proposal (RFP), LBT required that the company go through the testing standards. By the time the contract is awarded the testing will be complete and LBT can confirm with Altoona testing site and verify that the company meets the FTA Altoona testing guidelines.

Director Pfeffer asked for a clarification as to why the testing is referred to as "Altoona testing."

Rolando Cruz stated that Altoona is the name of a town in Pennsylvania where the University of Pennsylvania hosts the bus testing facility.

Director Pfeffer noted that after reviewing prior materials given to the Board Members, it appears that Orange County Transportation Authority (OCTA) was once a partner in this battery electric bus procurement. She asked for a clarification as to why OCTA is no longer a partner.

Rolando Cruz stated that the FTA requires companies involved in a joint procurement to get authorization from their Board and show that there are sufficient funds to move forward with the designated project. Unfortunately, OCTA Board of Directors had not designated funds for the battery electric bus project. Therefore, OCTA was unable to take part in the battery electric bus joint procurement.

Director Pfeffer wanted a clarification on the California Air Resources Board (CARB) Zero Emission Vehicle Program requirement and asked for clarification as to whether the requirement is that 15 percent of new buses being purchased have to be zero-emission or whether 15 percent of the fleet has to be zero-emission.

Rolando Cruz stated that the CARB zero-emission requirement is a previous regulation that is currently under revision to define modified regulations for 2015 models. California does want transit agencies moving forward with zero-emission vehicles. LBT is expecting a new ruling on this matter.

Director Economides asked if the spirit of the TIGGER grant is that LBT needs to truly buy American from an American company.

Rolando Cruz stated that the intent of the TIGGER grant is to develop innovative technology in order to make it possible to move towards zero-emission buses. LBT is looking for the best operational technology that also meets all of the federal requirements.

Director Economides stated that, in regards to life-cycle analysis and finances, she assumed LBT is looking at cost over time for all aspects, including the batteries.

Rolando Cruz stated that Steve Claremont will talk about the process and will be giving details regarding the life-cycle cost analysis, including the components.

Director Economides asked if the Board will be receiving that information prior to the April 27, 2015 Board meeting.

Rolando Cruz stated that LBT will provide that information and also noted cost information and the eventual scoring will be included.

Chair Sullivan George asked what the qualification requirements process was.

Rolando Cruz stated that the standard qualification for any bus procurement comes from the American Public Transportation Association (APTA) White Book. The White Book includes guidelines that ensure the vendors can do the job successfully. For example, any company can bid, but LBT will have to look at the company and see if it has a facility, has a Human Resources department, and if it has the capacity and resources to do the job. As LBT goes on to select a vendor, LBT will do a more intensive review to analyze the company.

Chair Sullivan George asked if it was a checklist that came from APTA.

Rolando Cruz confirmed that it is a checklist and that LBT required that the proposers submit financial statements and the companies are audited and it must be verified that they have built the type of bus LBT is looking to purchase.

Director Pfeffer noted that, with this re-solicitation, LBT revised the protest procedures. She asked if there had been any protests last time.

Kenneth McDonald stated that the FTA worked with LBT to have a revised protest procedure, so if there were any protests, the FTA would follow the stated procedure. He further noted that LBT expanded the procedures.

Director Pfeffer asked if we had any protests last time.

Kenneth McDonald stated that we did have a procedure, but it was very minimal compared to the current procedure.

Director Pfeffer clarified that she wanted to know if we had any protests during the last procurement.

Kenneth McDonald stated that LBT did not have any protests.

Chair Sullivan George asked if, in regards to the Buy America certification question previously asked by Director Economides, what the general spirit of Buy America was for this project.

Rolando stated that as part of the project, LBT had to state in the RFP that the selected vendor will need to meet those federal Buy America qualifications. The vendor has to certify that they meet the qualifications and LBT will then perform a post-build audit. The Buy America regulation is listed in the RFP and that is what LBT will audit against.

Debra Johnson added a clarification that any federal procurement requires Buy America, not just the battery electric bus project. She also clarified that there are different grant programs with similar acronyms, the Transportation Investment Generating Economic Recovery (TIGER) discretionary grant program and the TIGGER grant program. The TIGGER grant requires that 60 percent of bus materials and final assembly occur in the United States.

Vice Chair de Rivera asked if we are retiring 10 buses once LBT receives the 10 new battery electric buses.

Rolando Cruz stated that LBT will be retiring 10 diesel buses that are 16 years old.

Vice Chair de Rivera asked if LBT was required to retire those diesel buses.

Rolando Cruz stated that yes, as part of the TIGGER grant, LBT has to retire the same number of buses that are being placed into service.

Vice Chair de Rivera asked for a clarification on the budget in regards to the voucher program; will LBT be getting an extra bus or will there be money saved, and if so, who will be saving money.

Rolando Cruz stated that the manufacturer will have to apply for the voucher. As soon as the Board awards the contract, the manufacturer would apply for the voucher and the monies would be reserved. When LBT receives the bus, the manufacturer will invoice LBT with one bus already credited and the manufacturer would receive the money from the state. The voucher program allows a reallocation of the funds.

Lisa Patton added that LBT will be saving \$1.2 million that will be used for other bus procurements.

Vice Chair de Rivera stated that throughout the presentation LBT is using the phrase "new technology," yet Rolando Cruz continues to say that this technology is not new. She requested clarification.

Rolando Cruz stated that by "new technology" he means "advancing technology." For example, the first gasoline hybrid that LBT acquired in 2005 had some problems. There were failures and LBT was able to diagnose what the failures were and how to resolve them. The next generation of gasoline hybrids that were built, were designed without those failures. There is constant design and improvement. Battery electric buses have not been out for six or seven years. Each generation will be better since it is advancing technology.

Vice Chair de Rivera stated the spirit of the TIGGER grant is for development of technology. New technology is not always reliable. She asked for assurance that LBT staff is taking that into consideration.

Rolando Cruz stated that LBT advanced the technology with the gasoline hybrid buses. Some of the lessons learned from that procurement are being carried out to every single battery electric bus that is out there. Although LBT went through that experience, companies have learned from it. The reliability of new buses today is better in comparison to LBT's diesel buses. LBT will use technology to see problems happening in real time.

Kenneth McDonald asked Vice Chair de Rivera if she wants to know if LBT is taking that into consideration in case the battery electric buses do not perform.

Vice Chair de Rivera stated that, yes, she was wondering if LBT has a contingency plan. As a taxpayer, she also wants to know that people are thinking about American innovation.

Kenneth McDonald noted that this project is referred to as a demonstration project; however, LBT is required to have the new electric buses for 12 years, per the FTA.

Rolando Cruz added that LBT is discussing the risk procurement challenges with the FTA. There are 10 agencies that were selected for a discussion group with the FTA, and LBT is one of those agencies. As far as a backup plan, should the battery electric buses not perform accordingly, LBT has a contingency fleet that they would be able to use.

Vice Chair de Rivera asked why LBT included an option for on-route charging if it was a problem in the past.

Rolando Cruz stated that when looking at the market, both options for depot charging and on-route charging are available; LBT is asking vendors what they propose to be the best solution.

Vice Chair de Rivera asked how the references were verified.

Rolando Cruz answered that each of the proposers need to provide references of companies they have built buses for and LBT's purchasing department will then call those agencies and ask them general questions.

Director Pfeffer noted that in Year One there is budget for up 10 buses, and there are 14 more in the future.

Rolando Cruz answered yes.

**Steve Claremont, Program Manager, discussed the program management support provided by the Center for Transportation and the Environment (CTE).**

Director Pfeffer asked if the batteries will need to be replaced within the 12 year life.

Steve Claremont answered that it depends on the battery's chemistry. There are different types of battery chemistry; some last longer than others. In some cases, there are batteries that last six years and will need to be replaced. There are other technologies that will last perhaps up to the 12-15 years.

Director Pfeffer stated that this depends on what vendor LBT selects.

Steve Claremont confirmed this.

Director Pfeffer asked what happens to the bus and its battery at the end of its life-cycle, and is that taken into consideration in the life cycle cost analysis.

Steve Claremont stated that it is not taken into consideration for the life-cycle cost analysis. The bus can be refurbished which is typical of what happens with other types of buses. The batteries can either be recycled or there is a developing approach called second storage batteries. In this approach, the batteries are used in a stationary application.

Director Pfeffer asked if LBT assumed that, as far as electricity modeling, LBT would be purchasing all of the electricity from Edison.

Steve Claremont confirmed this.

Director Economides asked if the Board will be seeing an environmental life-cycle analysis as part of the presentation on April 27, 2015. She also asked if any of the vendors who are being considered, use solar to charge the batteries.

Steve Claremont stated that, typically, solar is entirely separate from the bus implementation, and there is no direct correlation in using solar to charge the bus. One would not have a solar panel on top of the bus or feeding directly into the charger. Solar is used to offset the cost of energy for the bus.

Director Economides stated that in Australia the battery electric buses are powered solely on solar.

Steve Claremont stated that if there are enough solar panels, it is possible, but what Australia is probably doing is feeding the energy off the grid.

Director Economides asked if any of the vendors being considered propose using solar panel charging.

Kenneth McDonald answered that LBT did not ask the vendors to provide information regarding solar panels. LBT will not be presenting the environmental impact or a plan for solar. LBT is looking at solar panel methods in other parts of the organization but not for the battery electric bus project.

Secretary/Treasurer Gant asked how many companies manage battery electric buses.

Steve Claremont answered that there are a lot of new companies that have come and gone, because this is a very capital intensive technology. There are a lot of legacy companies that are currently producing, or have plans to produce, but they seem to be delayed. The new companies are taking advantage of this gap in the market. There are six to a dozen different companies that are capable of manufacturing a battery electric buses.

Secretary/Treasurer Gant asked what the size of the battery electric bus fleet is for those systems that are operating now.

Steve Claremont answered that there are three to six, and the fleets that they are operating are anywhere from 60 to 1000 buses.

Secretary/Treasurer Gant asked if LBT's 10 would be one of the larger battery electric bus fleets.

Steve Claremont confirmed this. He added that since TIGGER was awarded, there are other companies who have become committed to purchasing battery electric buses.

Secretary/Treasurer Gant asked if modeling is the best way to get the information on how the battery electric buses are operating on the street.

Steve Claremont confirmed this and added that every route is going to be

different since each route has different hills. These buses cannot be put on every route and climate also has an impact. Modeling is extremely important, because there is a fairly narrow gap of routes that are eligible for this type of technology.

Director Economides asked if LBT is looking at the reduced greenhouse gasses emissions since the TIGGER grant seeks to reduce greenhouse gases.

Steve Claremont stated that the method FTA is using to calculate greenhouse gases is to look at the amount of diesel fuel that is no longer being consumed.

Director Economides asked if LBT is going beyond those requirements and doing a proper life-cycle analysis though the FTA is not requiring it.

Steve Claremont stated that when LBT does its greenhouse gases comparisons, electricity generation in the community will be reviewed as well as what the sources are and what the profile is of the greenhouse gases. LBT will then use that information for comparison. This information is not being required by the FTA, but is it part of LBT's key performance indicators.

**Rolando Cruz, Executive Director and Vice President of Maintenance and Infrastructure, presented the technical and pricing evaluation process.**

Director Pfeffer asked if the technology evaluation was done by three independent teams, was the pricing evaluation then also done by three independent teams.

Kenneth McDonald stated that pricing was evaluated by LBT's Finance department.

Director Pfeffer asked what if the teams diverged or disagreed on the technical side.

Kenneth McDonald stated that they would look at the score. Teams could be divergent, but scores will be provided to the Board members.

Secretary/Treasurer Gant stated that it was said that LBT verifies Buy America in the beginning. She then asked if LBT verifies the Buy America regulation at the end.

Kenneth McDonald clarified that, in the beginning, the vendors state that they are following the Buy America regulation. When the contract is awarded LBT audits and verifies that the selected proposer is following the Buy America

regulation.

Secretary/Treasurer Gant stated that unless the proposer is selected, LBT does not receive verification that the proposer is following Buy America regulations until the end.

Kenneth McDonald confirmed this.

Director Pfeffer asked if, at the April 27, 2015 meeting, a recommendation will be made to the Board to enter in to a contract with a selected proposer. She further asked what would happen if the Board decides they do not want to enter in to the contract; is there a runner-up.

Kenneth McDonald stated that the scores will be presented to the Board as well as the recommendation for a selected vendor. LBT staff will bring the recommendation to the Board and it will include all of the vendors with all of the scores for every proposal. LBT will have only negotiated a best and final offer with one selected vendor.

Secretary/Treasurer Gant stated that she appreciates the study session. She added that she feels better prepared going in to the next Board Meeting.

Kenneth McDonald thanked the staff who put the presentation together.

Chair Sullivan George also expressed her gratitude for the study session.

5. Public Comment.

6. [15-019TR](#)

Adjourn. The next regular meeting will be held on April 27, 2015.  
Barbara Sullivan George

**A motion was made by Director Pfeffer, seconded by Secretary/Treasurer Gant, to approve recommendation. The motion carried by the following vote:**

**Yes:** 7 - Barbara Sullivan George, Maricela de Rivera, Sumire Gant, April Economides, Nancy Pfeffer, Victor Irwin and Mary Zendejas

Note:

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(\*The City Clerk's office is closed on weekends. To assure proper accommodations, please call by 4:30 p.m. on the Friday prior to the meeting.)

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