



March 23, 2017

To: Transit Committee

From: Darrell Johnson, Chief Executive Officer

Subject: OC Streetcar Operations and Maintenance Organization Plan

Overview

The Orange County Transportation Authority is the lead agency for the design, construction, operations, and maintenance of the OC Streetcar in the cities of Santa Ana and Garden Grove. As part of the request for a full funding grant agreement to the Federal Transit Administration, an organization plan is required to prepare for future operations and maintenance of the service. Based upon Board of Directors' feedback on the key considerations presented in February 2017, staff has prepared a qualitative analysis of four organizational models and is seeking Board of Directors' approval to contract the operations and maintenance of the OC Streetcar system.

Recommendation

Approve the use of an operations and maintenance contractor to provide operations and maintenance services for the OC Streetcar project, and direct staff to return to the Board of Directors for approval to release a request for proposals to procure these services.

Background

On February 13, 2017, staff presented a set of key considerations to the Orange County Transportation Authority (OCTA) Board of Directors (Board) to evaluate four approaches to the OC Streetcar project (Project) Operations and Maintenance (O&M) Organization Plan: In-House, O&M Contractor, Management by Private Contractor (MPC), and In-House Operations/Maintenance Contractor (IHO/MC). Based upon Board feedback, the key considerations approved to evaluate these models include cost, operational flexibility, quality of service, organizational impacts, qualifications of personnel, and proven success/performance.

Discussion

OCTA is a well-established organization that provides transit service through both In-House operations and privately contracted operations. While OCTA has demonstrated effective management of various operating approaches and is well equipped to implement any of the options under consideration, OCTA has limited experience with electric rail systems. The electric rail systems require specialized training and knowledge as the electrical system is very much a part of the day-to-day operations. The specialized requirements include the ability to support and maintain the electrical system, as well as experience with vehicles that depend upon the electrical system for propulsion.

To determine which of the models best fits OCTA's needs both operationally and financially, the following is an assessment of the options based upon the key considerations approved by the Board in February 2017.

Cost

Conservative cost estimates were prepared for each of the organization options, with the costs presented in 2020 dollars, the first year of revenue operations. The O&M Contractor option has the lowest projected operating cost with an estimate of \$7.7 million per year for 31,280 annual revenue hours. The In-House, MPC, and IHO/MC options are all projected to cost approximately \$8-\$8.3 million per year. The operating costs per hour range from \$246 to \$265 per hour, depending upon the option.

Detailed projections for annual operating costs for all four options in 2020 dollars are shown in Attachment A. Overhead costs for the O&M Contractor option were calculated based upon the industry standard of ten percent of the applicable operating costs. The overhead for In-House, MPC, and an IHO/MC were assumed to be equivalent to the O&M Contractor. The added costs for the MPC include profit and the cost of contract administration. The total cost to OCTA is projected, including costs outside of the base service cost and administration. Security and marketing costs are also included and will be retained by OCTA regardless of the option utilized.

Operations Flexibility

The small nature of the operation, combined with requirements for specialized capability with vehicles and electrical systems, present a challenge. The O&M employees need to have multiple skills and knowledge to be able to respond to circumstances that arise during operations. The employees need the flexibility to be able to address a variety of tasks. Often, work rules established for an operation limit employees that may be able to conduct certain tasks, particularly as it relates to maintenance issues. The work rules will be developed to ensure flexibility for the employees.

The O&M Contractor and MPC options require experienced operations firms in order for the firms to submit a proposal. The private contractors will bring extensive experience in preparing work rules that ensure flexibility in the O&M. For this reason, the O&M Contractor and MPC options have an advantage for operations flexibility over In-House and IHO/MC.

Quality of Service

OCTA has been able to ensure quality of service utilizing both the In-House model for operations as well as the contracted approach for bus O&M. The key to service quality for the In-House operation is to have well defined expectations regarding on-time performance and reliability, along with effective monitoring of the outcomes. The O&M Contractor and MPC options typically have contractual requirements or financial incentives to meet the on-time performance. The O&M Contractor and MPC options have an advantage over the In-House and IHO/MC options because of the immediate access to existing experience and personnel to assure quality of service.

The In-House and IHO/MC ability to ensure quality of service increases each year with experience and may, in the long term, have an advantage over the O&M Contractor and MPC because of the ability to retain long-term trained In-House employees.

Organization Impact

OCTA has experience with In-House and O&M Contractor models for delivering transit service, and OCTA has a proven ability to easily incorporate either model into the existing organization. The largest impact is likely to be the requirement for recruitment and training of the new team. The O&M Contractor and MPC options bring experienced private firms already involved in the recruitment and training of similar personnel. There is an advantage in the startup to have prior experience and engagement in streetcar operations. In the short term, the O&M Contractor and MPC options would have the advantage on organization impact as OCTA could rely upon experienced rail operations personnel to train and establish an operating team for the new service.

Qualified Personnel

The OC Streetcar is estimated to have 44 employees for the initial service in 2020. The majority of the employees will be hired and trained for the position prior to commencing service. The key personnel, supervisors, and foremen for the operation will most likely need prior experience with similar systems to be effective members of the new team being established for the Project. It is a distinct disadvantage for OCTA to have limited local experience with rail, electrical systems, and streetcars. An extensive level of training and recruitment will be required to build an effective team to manage the initial operation in 2020.

The O&M Contractor and MPC options have advantages in that the private operators have been actively recruiting qualified individuals for the key management positions. In addition, the private contractor should have existing operations in other cities from which it can draw key personnel and provide effective off-site training to prepare qualified individuals. The In-House option can ensure adequate training and orientation for key personnel by establishing cooperative partnerships with other streetcar systems before the operation begins.

The best way to ensure qualified personnel over the longterm is by retaining trained employees for the service. Most of the qualifications are established through on-the-job training as part of the service start up and testing operation. Retention of employees for a long period of time is the most effective strategy to assure quality operations.

For the immediate need of a qualified team for initial operations, the O&M Contractor and MPC options have an advantage. For long-term employee retention and training, the In-House and IHO/MC options have an advantage.

Proven Success/Performance

In 2001, Portland introduced the first U.S. modern streetcar operation in mixed traffic. Since that time, 13 other cities have either established modern streetcar systems or have selected an organizational approach for operations.

The In-House, O&M Contractor, and MPC models have direct experience with streetcar operations and have all been implemented with success. The IHO/MC model has not been employed for modern streetcar operations. The In-House options for Dallas, Charlotte, Salt Lake City, Tacoma, and Seattle were determined to be successful because each relied upon prior experience and success in related rail operations implemented by the agencies. Cities with no prior rail experience as owners selected the O&M Contractor option (Cincinnati, Detroit, Kansas City, Milwaukee, Oklahoma City, and Washington, D.C.) or the MPC option (Tucson). Atlanta selected the In-House option but was not successful and is now implementing the O&M Contractor option. For properties with no prior rail experience, the O&M Contractor and MPC have proven to have the most successful track record.

In summary, the O&M Contractor and MPC have similar positive attributes and demonstrated experience with rail operations. Either option is expected to be more effective in establishing a new organization charged with operating the Project. The key personnel in both of these options are the responsibility of the contractor. The leadership of the key personnel is a critical ingredient to enabling an effective startup operation. The In-House and IHO/MC options are similar in that the primary leadership of the organization has to be assembled

by OCTA. In the long term, the IHO/MC options would be able to secure and train experienced personnel to operate the system.

Recommendation of O&M Contractor

A summary of the evaluation of the four options based upon the key considerations is provided in Attachment B. Based upon this analysis, staff is recommending that OCTA adopt the O&M Contractor option for providing O&M for the Project.

- OCTA can rely on experienced operating firms to organize its initial rail operations more effectively.
- The initial operation service quality is best supported by experienced private contractors.
- The O&M Contractor option is projected to have the least cost.
- The O&M Contractor option will provide a stronger base of experience in developing and training the employees for the service.

With the initial operation of the Project estimated to begin in December 2020, there is a challenge of building a new organization capable of effective operation the first day it opens. Utilizing an O&M Contractor has proven a successful model for several other transit properties with similar characteristics to OCTA. The experience offered by a private contractor in prior operations, as well as recruiting and training personnel for similar operations, provides a distinct advantage to OCTA in developing this new operation. OCTA organizationally has the ability to effectively manage privately contracted transit operations.

Next Steps

Pending Board approval, it is anticipated that a request for proposals for an O&M Contractor would be brought to the Board for release in September 2017. It is anticipated that 12 to 18 months will be required to complete the procurement, and a notice to proceed will be issued by September 2018, which would enable the contractor to mobilize and secure key personnel to support the operation.

It is recommended to have key personnel retained and on board within 24 months of starting operations (December 2018). The key personnel will refine the operations, prepare training and operations manuals, develop the safety procedures, assist with review of capital elements, and participate in testing and certification of the system.

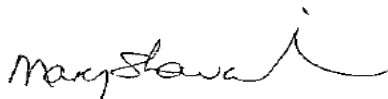
At least six months in advance (June 2020), the core group of supervisors and foremen for the O&M need to be on board and prepared to train the operators and mechanics.

Summary

Staff has completed an evaluation of operations and maintenance organization models for the OC Streetcar project based upon key considerations approved by the Board of Directors in February 2017. Staff is recommending an operations and maintenance contractor be procured and is seeking Board of Directors' approval to release a request for proposals for contracted operations and maintenance services for the OC Streetcar project.

Attachments

- A. OC Streetcar Operations and Maintenance Cost Comparison
- B. Comparative Evaluation of Operations and Maintenance (O&M) Options

Prepared by:

Mary Shavali
Program Manager
(714) 560-5856

Approved by:

Jim Beil, P.E.
Executive Director, Capital Programs
(714) 560-5646