



**October 8, 2020**

**To:** Transit Committee

**From:** Darrell E. Johnson, Chief Executive Officer

**Subject:** Agreement for the Procurement of 40-Foot Compressed Natural Gas-Powered Buses

### **Overview**

On March 23, 2020, the Orange County Transportation Authority Board of Directors approved the release of a request for proposals for the purchase of up to 299, 40-foot compressed natural gas-powered buses. Board of Directors' approval is requested to award an agreement for the purchase of 165 buses.

### **Recommendations**

- A. Approve the selection of GILLIG LLC as the firm to provide up to 165, 40-foot compressed natural gas-powered buses, with an option to purchase up to 134 additional buses.
- B. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-9-1836 between the Orange County Transportation Authority and GILLIG LLC, in the amount of \$100,371,600, for the purchase of up to 165, 40-foot compressed natural gas-powered buses, with an option to purchase up to 134 additional buses.

### **Discussion**

The Orange County Transportation Authority (OCTA) currently has a fleet of 462, 40-foot compressed natural gas (CNG)-powered buses used to deliver both directly operated and contract operated fixed-route service. Of the 462, 40-foot CNG-powered buses, 299 were delivered and deployed into revenue service in years 2007 and 2008. The Federal Transit Administration (FTA) defines the minimum useful life of these buses as 12 years or 500,000 miles. Consistent with the OCTA Fleet Plan, the 299 CNG-powered buses will be replaced at 16, 17, and 18 years of service.

The coronavirus pandemic has had a significant impact on ridership and OC Bus System service levels. As a result, staff has reviewed and adjusted the ridership projections and corresponding revenue vehicle hours, resulting in a reduced requirement for the number of replacement buses. To align with the reduced number of buses required at this time, the request for proposals (RFP) was amended to adjust the quantity needed from 299, 40-foot CNG-powered buses to up to 165, 40-foot CNG-powered buses, with an option to purchase up to 134 additional buses, to be exercised no later than December 31, 2022.

The new buses will be equipped with all OCTA-required equipment and branding requirements, which includes BRAVO! exterior paint branding (up to 20 buses), Express configured buses, (up to 30 buses) and OC Bus branding for regular fixed-route service. In addition, these buses will include an on-board video surveillance system equipped with reverse-motion and interior 360-degree cameras, fire and methane detection systems, driver barriers, three-position bicycle racks, 12-inch and 15-inch awareness monitors/displays, provisions to mount devices at the front and rear doors for electronic fare transactions, tire pressure monitoring system, upgraded radio communication system (voice over internet protocol) as well as all other systems and components, required for a full integration of these buses into the OCTA fleet.

### ***Procurement Approach***

This procurement was handled in accordance with OCTA Board of Directors (Board)-approved procedures for goods and services. Award is recommended to the firm offering the most comprehensive overall proposal, considering factors such as the approach to comply with bus technical specifications and requirements, qualifications, related experience of the firm, as well as cost and price.

On March 23, 2020, the Board authorized the release of RFP 9-1836 to select a firm to provide 40-foot CNG-powered buses. The RFP was issued electronically on CAMM NET. The project was advertised in a newspaper of general circulation on March 23 and 30, 2020. A pre-proposal conference was held on April 7, 2020, with 19 attendees representing eight firms. Five addenda were issued to post the pre-proposal conference registration sheets, respond to questions related to the RFP, and to provide clarification to firms.

On June 23, 2020, three proposals were received. An evaluation committee consisting of OCTA staff from Contracts Administration and Materials Management, Transit Technical Services, Health, Safety and Environmental Compliance, Bus Operations, and Maintenance departments met to review the submitted proposals.

The proposals were evaluated based on the following Board-approved evaluation criteria and weightings:

- Technical Specifications 50 percent
- Qualifications, Related Experience, and Project Management 20 percent
- Cost and Price 30 percent

Technical specifications was assigned the highest level of importance, 50 percent, to ensure proposals addressed each section of the technical specifications in sufficient detail to demonstrate a clear understanding of the scope of work, as the approach to comply with the bus specifications and requirements, capability to deliver a non-defective bus, and provide quality assurance and warranty are critical elements to the successful manufacturing of the buses. In addition, proposals must include evidence of sufficient planning to show that work will be accomplished as required with suggestions intended to improve the technical and operational aspects of the buses. Proposals must also demonstrate compliance with performance requirements. Firms must provide information regarding engineering, manufacturing, program and quality controls, plans for the coordination of major suppliers and subcontractors, as well as a schedule for the production of both the pilot and production buses.

Qualifications of the firm was assigned a 20 percent weighting and includes the history of the firm and information regarding the firm's manufacturing capabilities in producing the same or similar vehicles, with an emphasis on experience in producing CNG-powered vehicles. Under this criterion, proposals must provide federal and non-federal certifications, warranty and service center locations, maintenance information, financial documentation, past performance of vehicles, and references. The overall reputation of the firm was assessed through the review of any judgements, liens, fleet defect history, and/or warranty claims, and the steps each firm took to resolve these matters.

Cost and price was assigned 30 percent, as each firm must demonstrate competitiveness in pricing with supporting data to carry out the required services.

On July 13, 2020, the evaluation committee reviewed all proposals based on the evaluation criteria and short-listed the two most qualified firms listed in alphabetical order as follows:

Firm and Location

GILLIG LLC (Gillig)  
Livermore, California

New Flyer of America, Inc. (New Flyer)  
St. Cloud, Minnesota

On July 21, 2020, the evaluation committee interviewed both firms to assess their project understanding and approach to the scope of work. Each firm had an opportunity to present its qualifications, the proposed bus platform, and respond to evaluation committee questions. The evaluation committee asked specific clarification questions related to each firm's proposal relative to OCTA's 40-foot CNG-powered bus technical requirements.

The individual criteria scores for both short-listed firms were reviewed after the interviews; however, the overall ranking of the firms did not change.

On July 30, 2020, both firms were requested to review recently-approved bus configuration component changes, as well as to confirm compliance with OCTA's requirements that were not clearly defined in each firm's proposal, and submit revised pricing on associated items, if needed.

Based on the evaluation of written proposals, the information obtained from interviews and clarifications, the evaluation committee is recommending Gillig for consideration of award. Following is a brief summary of the proposal evaluation results.

**Technical Specifications**

Both short-listed firms are established companies with demonstrated ability to manufacture and deliver a 40-foot CNG-powered bus that meets OCTA's specifications.

Both proposed buses are "Altoona tested" and have an FTA-defined useful life of 12 years or 500,000 miles. Altoona testing evaluates new transit bus models for safety, reliability, performance, maintainability, noise, fuel economy and emissions.

OCTA specified minimum manufacturer warranties on the complete bus, including body and chassis structure, propulsion system, and major subcomponents such as the fire suppression system, brake system, fuel storage system and the heating, ventilation, and air conditioning system.

Both firms proposed to provide basic manufacturer warranties; however, Gillig proposed extended coverage for the manufacturer's base warranty to either meet or exceed OCTA's requested warranties, where New Flyer proposed to meet some of the requested warranties by adding an additional cost per warranty to each bus. Further, the bus body structural and integrity corrosion warranties offered by Gillig are for 14 years or 600,000 miles, whichever comes first, exceeding the commonly offered warranties for transit buses by two years and 100,000 miles. The longer warranties will provide support to OCTA's current Board policy that requires transit buses to be operated for 18 years, regardless of mileage.

Gillig proposed a stainless-steel structural layout and chassis designed to increase longevity and minimize corrosion. The chassis contains no welding on the low floor structure and is sprayed with aluminum-filled epoxy corrosion protection throughout the vertical sidewall body structure from the lower edges to above the midrail extrusion to aid in minimizing corrosion. Bus weight is always an area of concern due to the State of California's weight regulations. The proposed rear axle weight is lighter than other proposed buses, thus decreasing the curb weight by approximately 600 pounds. Gillig's bus utilizes five CNG tanks and has a recorded range of approximately 442 miles. In addition, Gillig uses industry standard parts with minimal proprietary components to ensure aftermarket part competition.

New Flyer proposed a hybrid structure composed of carbon steel/ferritic stainless steel, coated in a polyurethane primer, said to be an improvement over earlier bus builds in terms of corrosion protection; critical areas are coated with the primer including the chassis, curbside, and street side structural walls. The curb weight of the proposed bus falls within regulation limits. New Flyer's bus utilizes six CNG tanks and is designed for a 350 to 400-mile range; OCTA's requirement is a minimum 400-mile range.

#### **Qualifications, Related Experience, and Project Management**

In recent years, OCTA has done business with both New Flyer and Gillig and currently has buses on order with Gillig. Both firms presented experienced key staff, demonstrated strong relationships with suppliers and proposed a manufacturing schedule that fits within OCTA's delivery timeline.

Gillig, founded in 1890, is a 100 percent United States owned-and-operated manufacturing company, with one location in Livermore, California. Gillig has been manufacturing heavy-duty buses since 1978 and began manufacturing CNG-powered buses in 2010. Gillig has 14 quality control inspectors that verify and document compliance with bus specifications during the manufacturing of

each bus and guarantees on-time delivery of each bus. Gillig plans to have two field service representatives living in Orange County to handle all warranty-related activities and coordinate with component suppliers, once the buses start arriving in Orange County and are delivered to OCTA. In addition, Gillig will secure off-site properties for the correction of any Gillig bus discrepancies that may be noted by OCTA, if necessary.

New Flyer, founded in 1930, is a subsidiary of NFI Group, Inc., operating more than 50 facilities across ten countries, with three manufacturing facilities in the United States. New Flyer began manufacturing heavy-duty buses in 1988 and CNG-powered buses in 1994. OCTA currently has both CNG-powered and hydrogen fuel-cell buses built by New Flyer in the fleet. New Flyer buses are manufactured on four linear continuous flow production lines, three in the United States and one in Canada. The proposed bus will be manufactured in St. Cloud, Minnesota. Before manufacturing, New Flyer creates a virtual bus, allowing for a cross-functional internal design review that carries through to post-production of the bus. The assembly structure of components contained within the virtual bus is intended to match the released production bill of materials, enhancing pre-production, production and aftermarket processes. In addition, a five-member team is used to perform validation testing throughout the manufacturing process. New Flyer has a service center in Ontario, California to provide support to OCTA.

#### Cost and Price

The proposed price was based on a firm-fixed-price per bus, including training, manuals, diagnostic equipment, and training simulators. Pricing scores were based on a formula, which assigned the highest score to the lowest proposed price and scored the remaining firms' prices based on their relation to the lowest price. Gillig received the highest score based on the initial and option pricing. Contract award is for the initial order only. The optional purchase will be exercised with Board approval at a future date.

Following is a breakdown of the per bus cost for each bus configuration:

Bus Configuration	GILLIG LLC	New Flyer of America, Inc.
Regular	\$607,974	\$621,760
BRAVO!	\$609,026	\$622,460
Express	\$618,092	\$622,410

The FTA requires completion of a pre-award Buy America audit for purchases using FTA funds for rolling stock. The audit is to verify the requirement that 70 percent of the parts content of the vehicle to be purchased are made in the United States. A recipient purchasing revenue-service rolling stock with FTA funds must ensure that a pre-award audit is complete before the recipient enters into a formal contract for purchase. This purchase is contingent upon completion of the pre-award Buy America audit that will be performed by OCTA's Internal Audit Department.

#### **Fiscal Impact**

Funds for the procurement of 40-foot CNG-powered buses are included in OCTA's Fiscal Year 2020-21 Budget, Transit Technical Services, accounts 2114-9024-D2108-00Q and 2114-7752-D2116-00G intended for training, specialized tools, and diagnostic equipment, funded with FTA Section 5307 Congestion Mitigation and Air Quality Improvement Program funds.

#### **Summary**

Based on the information provided, staff recommends the Board of Directors authorize the Chief Executive Officer to negotiate and execute Agreement No. C-9-1836 between the Orange County Transportation Authority and GILLIG LLC, in the amount of \$100,371,600, for the purchase of up to 165, 40-foot compressed natural gas-powered buses, with an option to purchase up to 134 additional buses.

***Attachments***

- A. Review of Proposals, RFP 9-1836 40-Foot Compressed Natural Gas-Powered Buses
- B. Proposal Evaluation Criteria Matrix ("Short-Listed Firms"), RFP 9-1836 40-Foot Compressed Natural Gas-Powered Buses
- C. Contract History for the Past Two Years, RFP 9-1836 40-Foot Compressed Natural Gas-Powered Buses

**Prepared by:**



Dayle Withers  
Department Manager, Maintenance  
(714) 560-5538

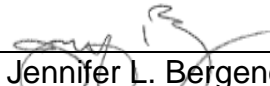
**Approved by:**



Cliff Thorne  
Director, Maintenance and Motorist  
Services  
(714) 560-5975



Pia Veasapen  
Interim Director, Contracts  
Administration and Materials  
Management  
(714) 560-5619



Jennifer L. Bergener  
Chief Operating Officer, Operations/  
Deputy Chief Executive Officer  
(714) 560-5462