



## **REQUEST FOR INFORMATION**

**BATTERY ELECTRIC COMMUTER COACHES**

August 15, 2018

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## **1. BACKGROUND INFORMATION**

The State Road & Tollway Authority (SRTA) is a state-level, independent Authority created by the Georgia General Assembly to focus on connecting people, jobs, and communities through preferred mobility solutions and innovative financing. In July 2017, SRTA consolidated with the Georgia Regional Transit Authority (GRTA) and now operates the Xpress commuter bus and regional vanpool services. Currently, Xpress operates 27 bus routes out of 27 park-and-ride facilities within the metropolitan Atlanta region. Xpress connects commuters from over 44 counties with major employment centers in Atlanta's business districts. In 2017, Xpress carried approximately 2 million passengers over 50 million miles, removing approximately 1.5 million vehicles from the road. This reduction helps lower harmful emissions, while saving Georgia residents approximately \$125 million in annual congestion costs. Although the Xpress service only operates in 12 counties, it draws ridership from over 44 of Georgia's 159 counties, allowing for enhanced regional mobility. Overall, the Xpress service connects over 3.4 million residents to 375,000 jobs across the region. The current Xpress fleet comprises about 165 over-the-road coaches, 90 of which operate out of the South Operational Facility (South Ops). All of the existing coaches are 45 ft. long and are diesel fueled.

## **2. RFI OBJECTIVES**

SRTA has initiated a program to replace 20 existing coaches that have reached the end of their useful life with 20 battery electric coaches. All 20 electric coaches will operate out of South Ops. Furthermore, all charging will occur outdoors at South Ops. SRTA will be conducting a competitive procurement process to source the new battery electric coaches and associated charging systems. This RFI is intended for battery electric commuter coach manufacturers and vendors.

The objective of this RFI is to educate SRTA staff on the current state of battery electric coaches and related charging infrastructure for commuter service application. This RFI solicits information from respondents with the expectation that SRTA will gather sufficient market information to help inform the development of specifications for a Request for Proposals.

## **3. RESPONDENT INSTRUCTIONS**

### **3.1. Definitions**

The following definitions shall apply when used throughout this Request for Information (RFI):

- (a) Charging System – see EVSE
- (b) Commuter Coach – a bus used for transporting passengers over long distances with infrequent stops. Commuter coaches are typically

characterized by forward-facing seats, high-floors, and a separate luggage hold mounted below the passenger compartment.

- (c) EVSE (Electric Vehicle Supply Equipment) – the power converters, conditioning equipment, and conductors used to connect an electric vehicle to the local utility grid and deliver energy to the vehicle.
- (d) Response – a written document prepared by a charging system manufacturer that addresses the requests and inquiries of the RFI.
- (e) Respondent – the submitter of a response to the RFI.
- (f) State of Charge (SOC) – quantity of electric energy remaining in the battery relative to the maximum capacity of the battery, expressed as a percentage (0% = empty; 100% full).
- (g) Total battery energy capacity – the total amount of energy stored in the vehicle battery pack, typically expressed in kilowatt hours (kWh).
- (h) Usable battery energy capacity – the battery energy that is available for the end-user to regularly utilize during operations, typically expressed in kilowatt hours (kWh). Usable capacity is typically less than the total capacity because some battery packs can be damaged and/or create safety risks if completely discharged or fully charged. Furthermore, vehicle performance may be derated at low SOC, and the energy capacity in this low-SOC region should not be considered available for regular use.

### **3.2. Deadline for Response**

Responses must be delivered to SRTA before 2:00 PM EST on Friday, September 21, 2018.

### **3.3. Response Format and Delivery Location**

One (1) electronic copy in Portable Document Format (PDF) on USB and one (1) original paper hardcopy must be delivered to Gary Thomason at the following address:

State Road and Tollway Authority  
c/o Gary Thomason, Procurement Specialist  
245 Peachtree Center Avenue NE  
Suite 2200  
Atlanta, GA 30303

Respondents shall include “RFI No. 19-031: Battery Electric Coaches –To be opened by addressee only” on the exterior of the sealed envelope containing the Respondent’s submission.

### **3.4. Question and Answer Period**

Please contact [Gary Thomason, Procurement Specialist](mailto:gthomason@srta.ga.gov) at [gthomason@srta.ga.gov](mailto:gthomason@srta.ga.gov) with any questions regarding this RFI.

All questions must be submitted in writing via email no later than 5:00PM EST on Wednesday, August 29, 2018. Answers will be posted no later than Friday, September 7, 2018 at <http://www.srta.ga.gov/doing-business-with-us/>.

### **3.5. Restrictions on Communications with SRTA during RFI Period**

From the date of issuance of this solicitation through the date of contract award by SRTA, all official communications to and from SRTA regarding this solicitation will be transmitted in writing (defined as being sent or received via letter or email on official firm/agency letterhead or by electronic mail).

All Respondent communications concerning this RFI should be directed to the SRTA Procurement Specialist. Any oral communications will be considered unofficial and non-binding on SRTA. Respondents should only rely on written statements issued by the SRTA Procurement Specialist.

All Respondents and representatives or partners of any Respondent are strictly prohibited from contacting any other SRTA staff or Board member or third-party representatives of SRTA on any matter related to the RFI.

### **3.6. Confidentiality**

SRTA recognizes that a Respondent may wish to include information in its response to this RFI that the Respondent may consider proprietary, confidential, or a trade secret. Any and all materials submitted in response to this RFI are subject to public inspection, pursuant to the provisions of Georgia's Open Records Act upon completion of the RFI process. SRTA's receipt, review, evaluation or any other act or omission concerning any such information shall not be considered to create an acceptance of any obligation or duty for SRTA to prevent the disclosure of any such information except as required by the Open Records Act. Respondents that decide to submit information they believe should be exempt from disclosure under the Open Records Act shall: (i) clearly mark each page containing such information as confidential, proprietary or exempt, (ii) shall include such information in a different color from the rest of the proposal text, (iii) shall state the legal basis for the exemption with supporting citations to the Georgia Code, and (iv) for records containing trade secrets, Proposers who wish to keep such record confidential shall also submit and attach to the records an affidavit affirmatively declaring that specific information in the records constitute trade secrets pursuant to Article 27 of Chapter 1 of Title 10 of the Georgia Code.

Pursuant to Georgia Law, if the information is requested under the Open Records Act, SRTA shall make a final determination if any exemption actually exists for SRTA to deny the request and prevent disclosure. SRTA will withhold such information from public disclosure under the Open Records Act only if SRTA determines, in its sole discretions, that there is a legal basis.

### **3.7. Reserved Rights**

Issuance of this RFI does not commit SRTA to issue an RFP or award a contract. SRTA reserves the right to cancel this RFI.

## **4. REQUESTED INFORMATION**

The following information is requested from interested battery electric commuter coach manufacturers and vendors. Additional relevant information, such as product brochures, test results, real-world deployment data, and end-user references can be attached to your response.

### **4.1. Contact Information**

**4.1.1.** Provide the following business information:

- Company name
- Company street address
- Company web address

**4.1.2.** Provide the following contact information:

- Point of contact name
- Point of contact title
- Point of contact email address
- Point of contact phone number

### **4.2. Business Structure**

**4.2.1.** When was your company founded?

**4.2.2.** Is your company publicly- or privately-held? List major shareholders.

**4.2.3.** Describe your business structure. List any parent companies or subsidiaries.

**4.2.4.** What is the total number of persons employed by your company? How many of those persons are employed in the United States?

### **4.3. Facility Information**

**4.3.1.** Provide the following information for each of your facilities:

- Physical address
- Activities performed (e.g. headquarters, administration, sales, design, manufacturing, parts warehouse, field support)
- Number of employees

### **4.4. Commuter Coach Information**

**4.4.1.** Provide the following information for each battery electric commuter coach offered by your company. If a coach can be configured with several different sized battery packs, please treat each configuration as a separate coach model.

- Model name and/or number
- Coach length (bumper to bumper)
- Coach width (excluding mirrors)
- Curb weight, total
- Curb weight, front axle
- Curb weight, rear axle
- Gross Vehicle Weight Rating (GVWR)
- Gross Axle Weight Rating (GAWR), front axle
- Gross Axle Weight Rating (GAWR), rear axle
- Seated passenger capacity
- Standing passenger capacity
- Expected average fuel economy in commuter service
- Expected average range in commuter service
- Total battery energy capacity (kWh)
- Usable battery energy capacity (kWh)
- Minimum, nominal, and maximum battery pack voltage
- Maximum battery pack charge current
- Battery chemistry
- Battery cell manufacturer

- Battery pack manufacturer
- Battery pack thermal management strategy (liquid cooling, forced air cooling, passive air cooling, etc.)
- Traction motor manufacturer and model number
- Traction motor peak torque and peak power
- Traction motor continuous torque and continuous power
- Traction motor maximum speed (rpm)
- Transmission manufacturer and model number, if applicable
- Tire size (e.g. 315/80 R 22.5)
- Maximum vehicle speed
- HVAC system make and model
- Charging protocol and type of charge port (e.g. CHAdeMO, CCS Type 1, CCS Type 2, etc.)
- Number of charge ports
- If equipped with multiple charge ports, does the coach receive charge from each port simultaneously? If so, what is the maximum current drawn by the coach from each port?
- Location of charge ports (e.g. curb side front, curb side rear, street side rear, center rear, center front, etc.) If options exist, please list all options.
- When is the coach available to order?
- Approximate lead time (time between order and delivery)
- List price of base coach (order size: 1)
- List price of base coach (order size: 20)
- Is the coach compliant with the Federal Transit Administration's (FTA) "Buy America" requirement for rolling stock? If it is not currently compliant but is expected to be in the future, please provide the year you expect to deliver compliant units.
- Has the coach completed FTA Model Bus Testing at the Altoona Bus Research and Testing Center? If it has not, when is testing expected to be complete?

**4.4.2.** Describe how battery energy storage capacity will change with time and use. Provide test results and/or real-world deployment data, if available. How will the usable battery energy capacity change over the 12-year life of the coach? How do you minimize the impact that battery degradation

will have on the coach's range? Describe any applicable battery capacity warranties that you offer.

**4.4.3.** Do you offer a lease option for the coach batteries? If so, please describe.

**4.4.4.** Provide standard warranty information as well as options for extended warranties.

**4.4.5.** Describe your support procedure and support network in the event of coach/component failure.

**4.4.6.** Describe any features/products you offer that may allow SRTA to:

- Reduce the charging load on the local utility grid
- Automatically limit charging to off-peak hours
- Ensure coaches are charged to a specified SOC by a specified time

Explain if the features can be controlled and monitored at a central terminal, such as a computer at a dispatch center. List any hardware, software, or network requirements for each feature.

**4.4.7.** Describe any access you provide to historical or real-time status and performance data. This may include a status dashboard, database, reports, and/or automatic notification capabilities. Please include:

- a list of logged variables (e.g. battery SOC, time of day that charge event begins and ends, charge rate throughout charging, HVAC load, etc.)
- types of reports (e.g. real-time status, real-time alerts, nightly exception reports, recurring reports etc.)
- methods of accessing data, alerts and reports (e.g. proprietary application, internet browser, SMS, email, etc.)

**4.4.8.** Are there any on-going costs or fees related to the purchase of your coaches, i.e., data collection, on-line data portal, reporting, etc.? If so, what are the costs for these services?

**4.4.9.** List all EVSE (make and model) that have tested and certified for use with your coaches. Please specify any recommended EVSE.

**4.4.10.** If your company sells EVSE, please respond to SRTA's Charging Systems for Battery Electric Commuter Coaches RFI. Please contact Gary Thomason, Procurement Specialist at [gthomason@srta.ga.gov](mailto:gthomason@srta.ga.gov) for a copy of the charging system RFI.

**4.4.11.** List any features or capabilities of your coaches that make them stand out among their competition. Please prioritize the list.

#### **4.5. Sales and Deployment Experience**

**4.5.1.** Provide the following information for each of your past and present customers that have purchased a battery electric commuter coach:

- Customer Name (e.g. transit agency name, company name, etc.)  
Can list 'prefer not to disclose' if appropriate, however, named references are preferred.
- Model number/name of coach purchased
- Number of coaches purchased
- Year of sale
- Status (e.g. on order, in production, delivered, in use)