

# Guidance Document to Develop a Solicitation for a Turn-Key Electric School Bus Service

## Introduction

The Metropolitan Area Planning Council (MAPC) is the regional planning agency (RPA) for the greater Boston region. It is a governmental entity established by M.G.L. c. 40B, § 24, et al., to provide a regional perspective on growth, development, and governance for the welfare of the region. It is qualified to act as a lead jurisdiction under M.G.L. c. 7, § 22B.

MAPC has developed a suggested template Request for Proposal (RFP) for a turn-key electric school bus service for municipalities and school districts to use to procure an electric school bus service. This effort was funded by MassCEC through the ACTNow grant awarded to Highland Electric in cooperation with MAPC. This effort was further guided by a Municipal Advisory Committee and an Industry Stakeholder Group. The Municipal Advisory Committee consisted of municipal staff from Arlington, Ashland, Beverly, Concord MLP, Quincy, Wellesley, and Winchester. A secondary committee was comprised of stakeholders from various aspects of the private market (e.g., bus manufacturers, charging companies, utilities). The Industry Stakeholder Group included representatives from Anderson Automotive, ChargePoint, EnelX, Dept. of Energy Resources, Eversource, Highland Electric, Levo Mobility, Lion Electric Company, National Grid, Power Options, Proterra, and Thomas Built Buses. The template RFP was drafted so as to be vendor neutral and not advantage any one vendor.

This document is a companion to the template RFP. It is intended to provide a context for the RFP and it outlines key decisions and considerations to be made by municipalities and school districts as they consider developing and releasing their own RFP for a turn-key electric school bus service. **Please note that to release an RFP with a lease agreement or any contract in excess of three years, approval must need to be voted on by the governing body that has oversight over municipal or school district contracts prior to issuance of any contract.**

## What is Turn-Key Electric School Bus Service?

Turn-key electric school bus service is a subscription model that includes everything needed by a municipality or school district to integrate electric school buses into their existing fleet. A vendor will provide the school buses, install charging infrastructure, manage charging, provide training, and conduct vehicle maintenance. This model is best suited for municipalities and school districts looking to develop an overall electrification strategy. The RFP was developed to be an all-inclusive turnkey solution. Municipalities or school districts are encouraged to consider value-added savings such as municipal electric bus maintenance and service.

## Template RFP for a Turn-Key Electric School Bus Service

An RFP may only be conducted by a Municipality or School District that has a Chief Procurement Officer. Municipalities or School Districts that do not have a Chief Procurement Officer may conduct an Invitation for Bids (IFB) and not an RFP. The template RFP allows flexibility and customization when developing a solicitation, enabling a municipality or school district to procure the exact vehicles, as well as charging hardware and software they want using the contract terms they deem most appropriate. It can be used at any time, allowing a municipality or school district to undertake a procurement at their own pace with a timeline that matches renewal of their contract and/or the lifecycle of their buses. The template RFP is meant to serve as a starting point to develop a final RFP. Municipalities and school districts should customize elements of the template RFP to suit their specific needs.

The template RFP is based largely on an Invitation for Bids developed by the City of Beverly when they procured a turn-key electric school bus service for their public schools. It also drew from RFPs developed by the Montgomery County School District (Maryland) to convert their entire fleet of school buses to electric. The template RFP has not been designed for a lease purchase transaction.

It is imperative that the municipality and/or school district connect with the respective utility as early in the project scoping as possible.

### **Who should use the Template RFP?**

Some municipalities or school districts own their own buses while others contract school bus services to a third-party vendor. This resource is intended for municipalities or school districts who directly own or lease their school buses, not those who contract school bus services through a third-party vendor. This solicitation is also most appropriate for municipalities or school districts or municipalities who own the land where their buses are garaged or have a location on municipally owned property where electric buses could be garaged.

This template RFP is designed for municipalities and school districts taking a specific approach and with a pre-determined number and types of school buses (e.g., 3 Type C electric school buses over three years). However, it is possible that individual municipalities or school districts may want to take a more holistic approach and develop a plan for large-scale fleet electrification. If that is the case, MAPC recommends referring to the language in the RFPs issued by the Montgomery County School District (Maryland) and Salinas City Elementary School District (California).

Municipalities that have used this method of procurement found it to be valuable because it delegates a range of decisions and responsibilities including:

- working with electric school bus manufacturers;
- designing, implementing and managing charging station infrastructure;
- coordinating with utilities;
- grant submittals and administration;
- maximizing vehicle-to-grid capabilities and revenue; and,
- operating and maintaining charging equipment and electric school buses.

## **Overview and Considerations**

### **Municipal Procurement**

M.G.L. c. 30B of the Massachusetts General Laws, known as the Uniform Procurement Act, establishes uniform procedures for local governments to use when contracting for supplies, services, and real property. The most typical procurement forms used are Invitations for Bids (IFB) and Requests for Proposals (RFP). An IFB is a lowest bid selected procurement method, but only if specific criteria are met. If specific criteria are not precise, a suboptimal selection could result. An RFP allows for including selection criteria in the procurement that takes price into consideration, but it also provides for quality requirements and comparative criteria that enable the selection of the responsible and responsive proposal that offers the most advantageous pricing.

While an IFB is often considered the simpler of the two options, for a turn-key electric school bus service procurement to be successful, it needs to be comprehensive enough to ensure that bid requirements will truly result in the most advantageous proposal being selected using comparative criteria. In the case of a complex service like a turn-key electric bus service, it is recommended that a municipality or school district use an RFP as its procurement method.

### **Electric School Buses and Related Charging Infrastructure**

The template RFP was drafted to comply with M.G.L. c. 30B. M.G.L. c. 30B does not include the ability to procure charging infrastructure as that. Installation of necessary charging infrastructure may have to be procured separately as a construction procurement under M.G.L. c. 30-39M.

### **How to Determine Considerations for a Deployment Schedule**

Municipalities and school districts may or may not have made a clear determination on their planned deployment schedule (number of buses and timing of bus delivery). The template RFP allows for both scenarios. If a municipality or school district knows their desired deployment schedule, it is recommended that that be clearly conveyed. If a deployment schedule is not yet determined, it is recommended that a municipality or school district provide milestones. Milestones include minimum and maximum number of vehicles over a specific period and/or a timeline to attain electrification (e.g., full fleet electrification by 2030 or school bus replacement rate within five years). Municipalities and school districts should consider requiring vendors to submit fleet conversion plans to ensure a smooth transition.

### **Availability of Electric School Bus Models**

There are various electric school bus models available on the market that municipalities and school districts could procure (e.g., Types A, C, and D). The bus specifications in the Montgomery County School District RFP serve as an example.

MAPC suggests that municipalities and school districts refer to the [Zero-Emission Technology Inventory \(ZETI\) Tool](#) and the [Electric School Bus U.S. Market Study and Buyer's Guide: A Resource for School Bus Operators Pursuing Fleet Electrification](#) to explore and compare electric school bus models and vehicle types. Developed by CALSTART, the ZETI Tool is an on-line resource of commercially available offerings of zero-emission medium and heavy-duty vehicles. This resource provides comprehensive information about vehicle availability and timeline when additional models are expected to become available. Issued by the World Resources Institute, Chapter 3 of the Electric School Bus U.S. Market Study and Buyer's Guide contains a summary of available electric bus models for Types A, C, and D. MAPC recommends that municipalities and school districts consider using similar tools and resources as they may become available.

### **Determining Equipment and Charging Infrastructure**

School bus fleet electrification is best accomplished with a comprehensive set of equipment and infrastructure. To ensure all components are included in a turn-key electric school bus service, it is important to provide a broad definition of what that entails while also including as much specificity as possible. The definition of equipment should include the electric school buses, associated electric vehicle supply equipment (EVSE), related infrastructure, and related electric and communications equipment installed by the provider to support the operations of the electric school buses.

Municipalities and school districts are encouraged to consult a qualified tax professional or consultant to determine whether there are any available tax credits that would apply to their particular situation.

Wherever possible, categorized specifications should also be provided in the solicitation. In addition, the municipality or school district needs to determine whether a site visit is mandatory or optional as part of the bidding process.

### **Designating a Location for Charging Infrastructure**

Charging infrastructure is intrinsically tied to fleet operations and management. It is important that a municipality or school district find a suitable location for charging infrastructure. The ideal scenario is if a municipality or school district already has a permanent municipally-owned bus depot suitable for the installation of charging infrastructure. If not, significant planning and negotiations may be needed to determine a location. Even with a turn-key solution, the vendor will depend on the municipality to provide a location to site charging infrastructure.

### **Including Electricity and Maintenance Costs**

While optional, including electricity and maintenance costs as a proposal requirement ensures that each vendor is offering a true turn-key service and enables direct proposal comparisons. These costs add the most risk to a vendor as they can be the most variable and least predictable. By ensuring that electricity and maintenance costs are included in all proposals, a municipality or school district can mitigate their own cost risks and guarantee long-term cost certainty with a school bus electrification project.

### **Bonds**

Municipalities and school districts should consider the efficacy of using a Bid Bond and/or a Performance Bond issued by a qualified surety. Bonds should only be accepted from surety companies licensed by the Division of Insurance to transact business in the Commonwealth of Massachusetts.

### **Developing a Price Sheet**

The Price Sheet in excel must clearly specify bus type(s)/model(s), charging equipment, maintenance services, and repair services (hourly rate) to comport with Massachusetts municipal procurement law. Municipalities and school districts are strongly encouraged to have an expert on electric school buses and EV charging equipment on staff or work with a knowledgeable consultant. The Price Sheet must be kept separately from the Proposer's Technical Proposal. No reference to price may be included in the technical proposal. Inclusion of pricing information in a technical proposal will result in bid disqualification.

### **Determining the Length of a Lease Agreement**

Turn-key electric school bus service providers are expected to offer accessible pricing with a lease agreement ranging between ten to fifteen years. Shorter term lease lengths can be accommodated but may result in higher pricing. Contracts with durations of more than three years, including the term of any renewal, extension, or option are permissible only if a longer contract has been authorized by a majority vote of the governing body of the local jurisdiction, subject to local ordinances, bylaws, or rules. Municipalities and school districts should consult their legal counsel and procurement officials for guidance. Such authorization must occur prior to the issuance of a contract.

### **Lead Time Between Contract Execution to Work Completion**

It is important to distinguish between the actual lease term (e.g., ten-year term) and the period when the contract becomes effective. As these types of projects involve underground work and equipment may be subject to supply chain risk (e.g., medium voltage equipment, buses), the actual start date for operational purposes may range considerably. For example, a contract executed in October could not reasonably have a lease term that starts any earlier than July/August of the following year. As a result, there will be a period of about one year when the contract is effective, but buses are not operational and leasing has not yet commenced.

### **Determining Warranties**

While the template RFP requires the vendor to provide a manufacturer's warranty or equivalent parts and services maintenance contract covering all major vehicle and charging equipment components for the duration of the agreement, the municipality or school district should determine whether specific additional warranties may be necessary. These warranties could include, but are not limited to vehicle body, chassis, battery, rust, paint, and EVSE. A municipality/school district may want to consider requiring that the awarded proposer be obligated to have a back-up bus available in the event an electric school bus is disabled.

### Using Federal Grant Funds

When Federal grant funds will be used to acquire school buses or EVSE, the municipality or school district must ensure that its procurement methodology comports with 2 CFR Part 200. MAPC advises that advance consultation with legal counsel and procurement officials to assess what are the required forms or clauses that must be included in the RFP and/or resulting contract.

### Anticipated Approval Process

While the process for approving the procurement of school buses may differ across municipalities, the following describes a what can be a typical process. The School District Superintendent works with the school district’s transportation or fleet manager to develop a proposed plan for the purchase or lease of a school bus or buses. The proposal would then require approval by the School Committee, and a vote of the City Select Board or by the Town Council. The most common sources of funding are either the School Budget or the Municipality’s Capital Improvement budget.

Below is a list of identified stakeholders that would need to be engaged as part of the municipal approval process for releasing a solicitation and an award for turn-key electric school bus service. The stakeholders would be the same whether the vehicle(s) would be purchased or leased.

Potential Stakeholders to Engage as Part of a Solicitation
Mayor's Office or City/Town Manager
Municipal Finance Office or School District Finance Office
School Committee
School District Fleet Manager
School District Superintendent
Sustainability Office (or Energy Office)
City Solicitor or Town Counsel
Municipal Procurement Manager or Purchasing Agent

### Posting a Bid Solicitation

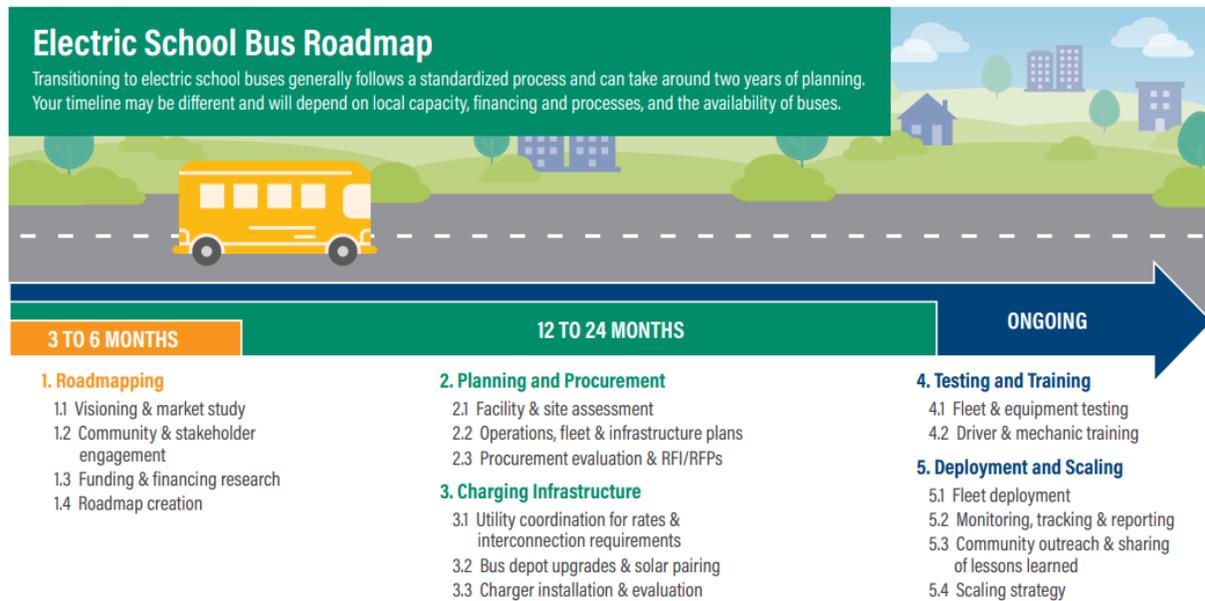
In addition to posting notice of the RFP on its website and/or bulletin boards, the municipality or school district will need to register and post the bid solicitation on CommBUYS, the State’s online procurement platform. Appendix F of the template RFP includes step by step instructions for doing to securely submit a proposal. The bid description must be published in a newspaper of general circulation. If the contract value is in excess of \$100,000.00, the RFP must also be posted in the *Goods and Services Bulletin* published by the Secretary of the Commonwealth.

### Vehicle-to-Grid (V2G)

Electric buses and/or the electric vehicle supply equipment they are coupled with can be outfitted with bi-directional charging capabilities (vehicle-to-grid or V2G), allowing power to flow from the bus to a building or electrical grid. This additional power may be directed to a municipality to offset their costs (directly or through their turn-key provider) or directed to the turn-key provider to offset their fueling and maintenance costs, reducing the ultimate cost to the customer. While still a new and emerging technology, a municipality or school district should consider asking vendors how they might be able to take advantage of energy shifting to defray costs.

## Timeline

The transition to electric school buses may take approximately two years of planning, and vehicle availability may be delayed due to supply chain interruptions. While timelines vary, the electric school bus roadmap below illustrates the key steps that are central when transitioning to electric school buses.



Source: World Resources Institute, [Technical Assistance Menu](#)

## Funding Electric School Bus Procurement

Electric school buses have a higher upfront cost than diesel buses. However, there are several grants and programs available to defray the cost of deploying electric school buses, which the third-party vendors could utilize. It is important to note that several of these grants and programs include components that target and provide additional incentives for disadvantaged communities and environmental justice communities. While grant funding may defray the cost of school bus electrification it should not be the basis of the entire budget. For more information on these funding sources, please refer to the Additional Resources document.