



Cape Cod Regional Transit Authority  
**Regional Partnerships &  
Collaboration Action Plan**

To accomplish a successful fleet transition, Cape Cod Regional Transportation Authority (CCRTA) recognizes the importance of partnerships and collaboration with other regional and local zero-emission (ZE) technology stakeholders. CCRTA's transition strategy involves detailed planning for the following: vehicle procurement, charging infrastructure strategy and procurement, operations, power and resiliency, and safety. To supplement the transition strategy, CCRTA identified other areas where shared services or regional partnerships could support the Authority's electrification efforts. The following pages provide high-level recommendations and actionable steps that CCRTA may consider taking during the transition period.

## 1. Joint Procurements

Transitioning from fossil fueled technologies to battery electric technologies is expected to increase capital spending. Although the electric vehicle (EV) market is growing, this technology is comparatively new. This means that the market has limited vendors and higher prices for both vehicles and supporting infrastructure. Regional or state procurement contracts provide agencies with an opportunity to leverage the benefits of economies of scale, negotiated procurement language, and pooled funding when available. CCRTA is encouraged to consider ordering vehicles as part of larger orders or through joint procurements. However, there are challenges with joint procurements, such as the need for standardization of vehicle design and aesthetics, which make the process of ordering a customized product more complex. The following items are procurement practice recommendations, considering recognized challenges:

- + Explore partnerships with other local and regional transit authorities (RTAs) and fleet operators (such as the Steamship Authority) to form joint multi-agency procurements for both battery electric buses (BEBs) and electric vans and cutaways.
- + Explore options for sharing vehicle procurements with other states, specifically those within the northeast (Maine or Vermont).
- + Consider all available joint purchasing options like public-private partnerships (P3s), cooperative purchasing agreements, and state purchasing contracts (MassDOT).
- + Where feasible, consider flexibility in vehicle types to increase competition on future vehicle procurements and to allow for greater maintenance commonality with other vehicles and authorities.
- + To maximize the chances of EV acquisition, consider developing grant applications for specific joint orders, like an electric van and cutaway vehicle and supporting infrastructure procurement.

## 2. Training and Workforce Development

The public transportation industry is experiencing workforce shortages in positions like operators and technicians. In addition, the current workforce is trained to operate gasoline and diesel-powered fleets. Considering the industry's push towards zero-emission technology, the industry is faced with the challenge of finding the workforce with the correct skillsets. CCRTA is also in a similar boat where its staff currently operate a revenue fleet composed entirely of gasoline and diesel vehicles. As a result, the staff have skill gaps related to EV and charging infrastructure technologies. To address the worker shortages and to ensure that both existing and future staff members can operate CCRTA's future system, CCRTA should consider the following training strategies incorporating local schools and colleges:

- + Seek training beyond the general, vendor-provider operator and technician training to a) improve operator performance thus increasing BEV efficiency and b) improve technician confidence thus reducing technician shortages.
- + Continue coordination with Cape Cod technical schools and community colleges to learn about education programs applicable to battery electric vehicle technologies.

- + Consider partnering with the schools to develop relevant ZE curriculum; add the required courses for BEV technicians and associated qualified technician certification.
- + Coordinate with other peer transit authorities and municipalities to transfer 'lessons learned.' Send staff to transit authority properties that have already deployed battery electric vehicles (BEVs) to learn about the technology (Martha's Vineyard RTA, Greater Attleboro-Taunton RTA, Steamship Authority (SSA), etc.).
- + Consider resource pooling with SSA or other local RTAs. Where feasible, coordinate inter-agency training events to accommodate larger training classes.

### 3. Charging Infrastructure

Planning for on-route fleet charging infrastructure is necessary for CCRTA's successful electrification as is community-level planning for infrastructure solutions that could serve the Cape Cod region. On-route charging, if located in public places, provides an opportunity to bolster market acceptance of light-duty electric vehicles (EVs) on the Cape by increasing charging opportunities. The following are recommended steps CCRTA could take to begin infrastructure planning:

- + Initiate conversations with SSA regarding shared charging infrastructure. Negotiations should include topics such as contract language, financial model, operations and maintenance, site access, power availability, and utility coordination to name a few.
- + Begin conversations with local officials and landowners in Provincetown and Mashpee to identify potential charging sites.
- + Coordinate with Cape Cod Commission, local Chambers of Commerce, and planning entities in the region to discuss charging infrastructure ownership and maintenance model options.
- + Continue coordination with the local utility provider, Eversource, to understand current and future grid requirements, power availability, and pricing on Cape Cod.

### 4. Utility Coordination

To reference published lessons learned from transportation agencies across the country, utility coordination may be one of the most important pieces of any fleet transition. The following is an inexhaustive list of items CCRTA should consider through the entirety of the transition:

- + Identify and maintain an Eversource point of contact (POC) who is familiar with the Authority's electrification strategy and status.
- + Remain abreast of Eversource's state and local incentive programs, like the Make Ready Incentive Program, and any modifications to the Program's terms and conditions or available funding.
- + Involve Eversource in planning efforts for CCRTA's future electrification and charging infrastructure needs so that they can plan their capital infrastructure and expansion.
- + Request Eversource conduct power capacity evaluations at locations identified for on-route charging and any future bus depot.
- + Communicate with Eversource POC frequently regarding CCRTA's vehicle procurement and charging infrastructure schedule to align with the utility's construction schedule.
- + Stay informed of Eversource's EV rates and pricing, and negotiate CCRTA's rates, where feasible.

### 5. Safety/Emergency Response/First Responders

Finally, from a safety and emergency response perspective, CCRTA must take actionable steps to prepare for an electric fleet and the risk of battery fire. An EV's battery can start rapidly expelling heat and flammable gas, causing a "thermal runaway" fire. Battery fires are difficult to put out and can even reignite after they are extinguished. Furthermore, without prompt fire mitigation the dispersed heat and gas will likely spread to whatever is located near the vehicle. If this is another EV then a chain reaction can occur, with the heat emanating from one vehicle overheating (and likely igniting) the batteries of another. This

can endanger all the vehicles in the depot. The following recommendations are meant to guide the CCRTA in adequate safety planning:

- + Include emergency responders across Cape Cod in early communications regarding CCRTA's planned EV and supporting infrastructure procurement to increase awareness and level of preparation and training.
- + Determine whether emergency response would be handled by town, or by network/region.
- + Determine the level of CCRTA asset information that the fire departments need to have on file, if any.
- + Work with emergency responders in Dennis to commission a fire safety study at the Depot, initially, and then at Hyannis Transportation Center (HTC).
- + Coordinate first responder training with Cape Cod fire departments and consider joint training events with local municipalities or businesses operating EVs.
- + Update CCRTA's Safety Plan and Emergency Response Plan to include processes and procedures in the case of battery fire.
- + Share the updated plans with local emergency responders as well as all applicable CCRTA staff.