

Building Systems: Electric Vehicle Recommendations Example

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About: This document outlines a comprehensive strategy for The Loft to acquire an electric school bus and associated charging infrastructure to transport 65-100 students. It details various funding and incentive programs available in Massachusetts that could support this initiative, focusing on reducing emissions and promoting sustainable transportation solutions. Key recommendations include leveraging funds from the Volkswagen Settlement Grant Programs, MassEVIP Fleets Incentives, and various charging infrastructure incentives for educational campuses. Additionally, it mentions the possibility of utilizing federal tax incentives to further reduce costs.

Usage Description: The recommendations are intended to guide decision-makers in planning and funding the acquisition and support infrastructure for an electric school bus. This document serves several purposes:

- **Funding Acquisition:** Assists in identifying and applying for relevant grants and incentives that can cover significant portions of the costs associated with purchasing electric buses and installing charging stations.
- **Project Planning:** Aids in strategic planning for integrating sustainable transportation solutions into operations, ensuring that all available resources are utilized efficiently.

Recommendations for Electric School Bus Acquisition and Charging Infrastructure for The Loft

To support The Loft's goal of transporting 65-100 students, here is a strategic plan to purchase and fund an electric school bus and associated infrastructure. This approach combines Massachusetts-specific incentives, strategic funding, and practical recommendations tailored to The Loft's educational mission.

1. Electric School Bus Purchase and Funding Options

- **Volkswagen Settlement Grant Programs:** Several programs funded by the Volkswagen Settlement and administered by the Massachusetts Department of Environmental Protection (MassDEP) aim to reduce emissions through electric vehicle adoption. Grants can support electric buses and charging infrastructure, which align with The Loft's sustainability goals.
 - [MassDEP Guide](#)
- **MassEVIP Fleets Incentives:** This ongoing program provides incentives for public entities to lease or purchase EVs, including school buses. For charging stations, the program covers up to 60% of hardware and installation costs, capped at \$50,000 per location.
 - [MassEVIP Fleets Program](#)

2. Electric Vehicle Charging Infrastructure Incentives

Based on the educational and public nature of The Loft, the following charging programs are recommended:

- **Direct Current Fast Charging:**
 - **Eligibility:** Available to non-residential public, private, or non-profit locations accessible to the public, including educational campuses with at least 15 students on site.
 - **Recommendation:** Utilize this program to install DC fast chargers, ideal for quick recharges between field trips.
 - **Incentive Details:** Funding covers up to 80% of the cost (100% for government-owned locations) with a maximum cap of \$50,000 per station.
 - [Application Information](#)
- **Multi-Unit Dwelling & Educational Campus Charging:**
 - **Eligibility:** Available for educational campuses with at least 15 students, this program provides support for Level 1 and Level 2 chargers, suitable for overnight charging or lower-demand periods.
 - **Recommendation:** Install Level 2 chargers to support regular bus charging cycles. This option also covers up to 60% of installation and hardware costs, with a \$50,000 cap per location.

- [Application Link](#)
- **Public Access Charging:**
 - **Eligibility:** For non-residential public, private, or non-profit sites open to the public.
 - **Recommendation:** If The Loft's EV charging stations are accessible to the public, this incentive can provide additional funding to make charging infrastructure available to broader users. The incentive structure mirrors that of the Multi-Unit Dwelling & Educational Campus Charging Program.
 - [More Information](#)
- **Workplace & Fleet Charging:**
 - **Eligibility:** For private, public, or non-profit workplaces with at least 15 employees, and locations where fleet vehicles are garaged.
 - **Recommendation:** This program could support charging infrastructure at The Loft or at any dedicated fleet storage location. Funding covers up to 60% of hardware and installation, capped at \$50,000.
 - [Application Page](#)

3. Additional Funding Options

- **Federal Tax Incentives (30C Alternative Fuel Vehicle Refueling Property Credit):** A federal tax credit for up to 30% of charging equipment costs, which can be applied toward installing charging infrastructure. This is beneficial if The Loft plans to purchase and install chargers directly.
 - [IRS Information on the 30C Credit](#)

Summary of Recommendations

1. **Explore and apply for the DOER Vehicle-to-Grid Electric School Bus Pilot and Volkswagen Settlement Grant Programs** to fund the electric bus acquisition and initial charging infrastructure.
2. **Utilize the MassEVIP charging incentives** to install both DC Fast Chargers (for quick recharges) and Level 2 chargers (for overnight or extended charging), depending on usage patterns.
3. **Take advantage of federal tax credits** to reduce out-of-pocket expenses for any additional required infrastructure.

This approach combines state and federal funding sources to support both immediate bus acquisition and long-term infrastructure sustainability, aligning with The Loft's commitment to providing environmentally friendly transportation solutions.