

Annual Merit Review 2021 -

Mid-Atlantic Electric School Bus Experience Project (MEEP)



- Invoicing & Billing Initiated

Project ID: DE-EE0008892 ti120

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Project Overview & Summary



Mid-Atlantic Electric School Bus Experience Project (MEEP)



Timeline: October, 2019 – December, 2023
Reflects No-Cost Extension

Budget: \$1,668,349 Total
\$998,349 nonfederal
\$670,000 Federal

Barriers: School Operations Status, Varying State Bus Requirements

Partners: Regional Clean Cities Coalitions in MD, DC, PA, and NJ. VEIC. Thomas Built and Blue Bird bus. Air and Utility and School partners.

Project Objectives



- Plan for electric school bus (ESB) deployments
- Engage in multi-state effort to get buses and educational tools out to users in regional demonstrations and deployments
- Document and analyze electric bus deployment lessons learned
- Distribute lessons learned to benefit future regional and national deployments



Approach/Milestones



Use U.S. Department of Energy Recognized Clean Cities Coalitions and technology expert to: *Engage school districts throughout the project region, Provide firsthand operational experience, and, Partner with bus manufacturers, dealers, utilities, governments and other local-level stakeholders to advance electric school bus deployment and technology development.*

- Project Negotiations, DOE Kickoff, Project Team Kick Off, Sub-Contract Documentation
- Remote Work Transition and Reevaluation
- Project Flyer, RFQ
- Extended BP1

Key Project Accomplishments



➤ Kickoff Achieved

- *Objectives Finalized*
- *Partners Engaged*

➤ Documents Developed

- *School District Selection*
- *EV Bus Incentives*
- *Challenges Doc*

➤ Partners Engaged

- *Meetings Monthly*
- *Billing & Invoicing*

➤ Stakeholders Engaged

- *Manufacturers*
- *Financing / Funding*
- *School Districts*



Metrics of Progress



- *36 Virtual Team Meetings*
- *5 Real-World Ride-and-Drive Demonstration Events*
- *4 ESB Manufacturer Open House Web Events (VA)*
- *2 Additional ESB Webinars*
- *1 ESB "Boot Camp" (participated)*
- *> 5 Critical Project Documents Developed*
- *> 20 Signups and Stakeholder Engagements*



Collaboration & Coordination



Clean Cities Coalitions
VA, DC, NJ, PA, MD

National Association for Pupil Transportation

VEIC

Generation 180

Regional Electric Utilities
Dominion Energy / BGE / PEPCO / PECO +

State Air Quality Agencies
VA DEQ / MDE / NJ DEP +

Energy Foundation

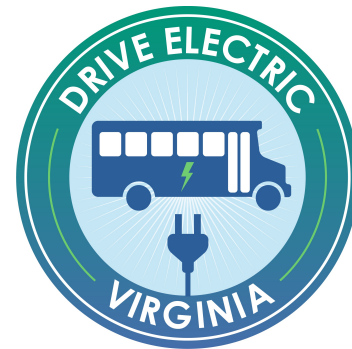
Electric School Bus Manufacturers



Market Impacts



- **Numerous Regional School Systems EV bus transition planning**
- **Virginia**
 - Project facilitated ESB workshop series (virtual / in person)
 - Project Partner Dominion deployed 50 electric school buses
 - VA DEQ released funding 5/5/21 for clean school bus incentive program
- **New Jersey**
 - Pilot program launched, schools identified
- **District of Columbia**
 - Electrification roadmap plans 100% ESBs
- **Pennsylvania**
 - Drive Electric PA offering clean school bus incentives, schools identified
- **Maryland**
 - Clean transportation program includes EV buses
 - 6 schools getting EV bus funding and chargers + 300 Vehicle Announcement



Summary



- **COVID-19 & Safety Patience**
 - **Virtualization important**
- **Varying State Requirements**
 - **Licensing, Seat Size**
- **Time/ Budgets Under Pressure**
 - **Particularly Districts Operated By Contractors**
- **High Profile**
 - **Early Stage Technology**
 - **Potential Shifting Specs**



Health / Climate Attention



School Buses:

- Transporting > 25 million schoolchildren daily in the U.S.
- Safest statistical transportation to and from school

Diesel Pollution -> Zero Emission Electric:

- Traditional diesel-powered school buses emit NOx, PM
- Pollution inside the bus can be > 5x greater than outside
- VW and DERA funding allowed govt vehicles like bus

Children:

- Smaller bodies mean higher pollutant concentrations
- Typically have higher activity levels and respiration rates

Childhood Asthma affects nearly 6.3 million children in the U.S.



WHAT'S NEXT?

- **Timeline Revised**
- **Projected Deliverables Underway**
- **Deployment**
- **Length of Demonstrations**
- **More Dealers As State Specific Strategic Partners**

Any proposed future work is subject to change based on funding levels.

Questions?



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Technical Back Up Slides