



STATE OF MAINE
GOVERNOR'S OFFICE OF POLICY INNOVATION AND THE FUTURE
181 STATE HOUSE STATION
AUGUSTA, MAINE
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**Governor's Office of Policy Innovation and the Future
Report on Zero Emission School Buses**

Pursuant to

An Act To Transition State and Local Motor Vehicle Fleets to Plug-in Hybrid Vehicles and Zero-emission Vehicles

January 12, 2023

Summary

Public Law 2022, Chapter 693, An Act To Transition State and Local Motor Vehicle Fleets to Plug-in Hybrid Vehicles and Zero-emission Vehicles (Act), required the Governor's Office of Policy Innovation and the Future (GOPIF) to convene a working group to consider implementation of Title 20-A, section 5401, subsection 15-A for zero-emission school buses, which requires that, by 2035, at least 75% of annual school bus acquisitions be zero-emission vehicles.

Over the course of the past year, GOPIF worked with numerous partners to consider the questions presented by the Act, including:

- Types of zero-emissions school buses, focusing on electric school buses (ESB), the only currently-available zero-emissions school bus technology.
- Options for financing the acquisition of ESBs.
- Engagement with electric utilities and other private entities supporting the acquisition of ESBs.
- Consideration of charging infrastructure.
- Training and education needs.

There is significant national attention, support, and funding for ESBs and their deployment in Maine's rural and urban school districts. GOPIF worked together with the Maine Department of Education (DOE) and the Maine Department of Environmental Protection (DEP), to secure funding and establish the new Maine Clean School Bus Program to leverage this national support on behalf of Maine schools, while working to achieve the mandate contained in the Act. In addition to supporting this new program, GOPIF has worked with the DOE to propose rules to implement the above subsection, with Maine schools to apply for substantial federal funding for ESBs, with utilities to publicize a school bus fleet assessment tool, with the associations representing school business officers, transportation directors, superintendents, school boards, and principals to offer educational opportunities, and with other stakeholders interested in supporting Maine's clean vehicle transition. These actions and their outcomes are summarized below.

GOPIF was directed to submit this report, with recommendations, to the joint standing committee of the Legislature having jurisdiction over transportation matters.

Maine Clean School Bus Working Group

As directed by the Act, GOPIF convened a targeted group of relevant state agencies and quasi-state agency partners— including the Governor’s Energy Office, DOT, DEP, Maine Department of Transportation, and Efficiency Maine Trust – to coordinate support for bus electrification. Quickly, and in response to dedicated and significant federal funding (below), this group crystalized to develop the Maine Clean School Bus program (below). The Maine Clean School Bus Program collaborated with Central Maine Power to inform utility considerations related to ESBs, and brought on a consultant to support this work, and met with individual schools and with leadership from the Maine Association of Pupil Transportation, Maine Association of School Businesses Officials, Maine School Superintendents Association, and Maine School Boards Association. The program team also presented at the annual Commissioner’ conference held by the DOE as well as the annual Maine School Management Association conference.

Maine Clean School Bus Program: Technical Assistance and Federal Funding

The State of Maine has created a new statewide Maine Clean School Bus Program (<https://www.maine.gov/doe/transportation/cleanbus>) to help Maine school units purchase electric school buses.

With up to \$5 billion available over the next 5 years through the US Environmental Protection Agency’s (US EPA) new Clean School Bus Program (<https://www.epa.gov/cleanschoolbus>), there is an unprecedented opportunity to accelerate electric school bus adoption in Maine and deliver cleaner school transportation to every region of the state.

The Maine Clean School Bus Program is a joint project of the DOE, the DEP, and GOPIF, to support Maine school units in competing for federal EPA clean school bus funds. Technical assistance is provided by VEIC, a northeast-based consultant with national expertise in school bus electrification. Funding for VEIC in 2022 was provided by the US Climate Alliance, of which Maine is a member state, and by local nonprofit A Climate To Thrive, with continuing support through July 2023 provided by The Nature Conservancy.

The Maine Clean School Bus Program works with school units and school bus contractors to:

- Provide free technical assistance to plan for, procure, and deploy electric school buses.
- Provide information on the EPA Clean School Bus Grant Program and assist schools in preparing funding applications.
- Provide information and resources to increase awareness of electric school bus technology and performance.

On October 26, 2022 the EPA announced that Maine led the country in the first round of US EPA clean school bus funding with the 4th most EV bus awards, per-capita, of all 50 states; and the most per capita in New England. This first round of funding for busses is going to school units in Castine, Dayton, East Range, Mount Desert, Pleasant Point, RSU 12 (Windsor), RSU 20 (Searsport), RSU 57 (Massabesic), RSU 83 (Bingham), Waite, Wells-Ogunquit, and Winthrop – with over \$13 million in awards for 34 EV buses. School units designated “priority” by the EPA were awarded the full cost of buses and associated charging (\$395k/bus) and awards granted units the full number of their requested buses.

As a next step, the Maine Clean School Bus Program will support awarded units as they order, install infrastructure for, and begin to operate their buses. Several more rounds of EPA awards are expected in the coming years; support will continue to be provided by VEIC for the next round of funding. VEIC will also support continued collaboration with the Maine school leadership organizations listed above, as well as offer continued education through newsletters, webinars, and office hours directly to Maine schools. EV buses, fully paid for by the US EPA, will save money for local school units on maintenance and fuel, and will reduce harmful transportation emissions.

The First Electric School Bus in Maine

In the summer of 2021, the Mount Desert Island Regional School System purchased and deployed the first ESB in Maine. This bus served as a test of this emerging technology in a rural Maine setting. The funding for the project was secured through a federal program and through partnership with a local resiliency non-profit, A Climate to Thrive, for support on equipment specifications and implementation. Through a separate contract, VEIC studied operational performance and savings across the first year of the bus.

The study showed that ESBs can provide quality service, in addition to cost savings and emissions reductions, in a rural Maine setting. Over the course of the study, the ESB's significant savings in both maintenance and energy costs combined with superior driving and riding experience made the advantages of ESBs over diesel buses very clear. Mount Desert Island is pleased with the performance and benefits of their ESB and is actively pursuing funding for additional buses, including the one awarded through the US EPA's first round of funding.

More information and a case study are available here: https://www.maine.gov/doe/sites/maine.gov/doe/files/2022-11/MDI%20High%20School_Rural%20Bus%20Electrification_Case%20Study%202022.pdf.

Department of Education: Rulemaking, School Bus Purchase Program, and Green Schools Proposal

The DOE was directed to pursue rulemaking to help achieve increasing percentages of new ESB purchases; such rulemaking is on their 2023 regulatory agenda and will be proposed upon successful hire of a new transportation coordinator with expertise in bus electrification (underway).

In addition to rulemaking, and establishing the Maine Clean School Bus Program, the DOE requested an increased budget for the school bus purchase program to support bus electrification outside of those units awarded through the EPA's competitive Clean School Bus Program. The budget for this program has been \$9 million annually since FY 2018; requests from school units have historically been between \$14-23 million annually in that same time period. The DOE has requested a \$12 million budget for the bus purchase program, which will enable them to support bus electrification.

Finally, the DOE is advancing the establishment of a new Green Schools program. Energy and transportation are significant costs for Maine schools; by being more energy efficient and adopting cleaner technologies, schools can save money, help prevent greenhouse gas emissions, and improve students' learning environment. In addition, the new Green Schools program will enable DOE to leverage federal funding opportunities through the Infrastructure Investment and Jobs Act (also known as the Bipartisan Infrastructure Law) and Inflation Reduction Act for energy efficiency and clean transportation projects. To facilitate this work, the DOE has requested funding to establish a Green Schools Director, and is committed to hiring technical contractors to provide technical assistance directly to schools, as well as curricular development associated with these types of projects.

Other Activities

GOPIF has worked with a number of other partners to advance ESBs in Maine.

- Central Maine Power (CMP) has developed a free school bus fleet assessment tool, to help schools assess the costs associated with charging an ESB and any utility upgrades necessary to support charging infrastructure. Through partnership with GOPIF and DOE, CMP is working to support Maine schools as they implement bus electrification projects.
- The Nature Conservancy, Maine Clean Communities, the Maine Environmental Education Association, A Climate To Thrive, and other organizations are actively working together to support school districts at all

stages of their bus electrification journeys, from conception and education to funding and implementation. GOPIF and the Maine Clean School Bus Program coordinate regular calls between interested parties to best support schools.

- National organizations, led by the World Resources Institute Electric School Bus Initiative (<https://electricschoolbusinitiative.org/>), have published several resources to help schools select and acquire appropriate technology. Chief amongst those is an ESB buyers guide (<https://electricschoolbusinitiative.org/all-about-types-electric-school-buses>) , detailing all available makes and models of ESBs; as well as additional information, decision making tools, and engagement materials for schools to use in their electrification projects.

Conclusion

GOPIF is grateful for the opportunity to help advance this nation-leading work in providing healthier, less expensive, and safe electric transportation options to schools around the state. In addition to this report, we would be glad to brief the legislature on our work to date, and to engage further on this topic at the committee's convenience.

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