



Program #10096 - Sustainability - Electric School Buses FY 2024 Proposed

Department: Nondepartmental **Program Contact:** John Wasitynski
Program Offer Type: Existing **Program Offer Stage:** Proposed
Related Programs:
Program Characteristics: One-Time-Only Request

Executive Summary

Traffic related fossil fuel combustion emissions are the single largest source of air pollution in Multnomah County and the leading source of cancer causing air toxics in Multnomah County. Diesel and gas powered engines, particularly in medium and heavy duty vehicles like school buses are among the leading contributors of traffic related air toxics. Exposure of children to these emissions, especially diesel emissions, is particularly concerning. This investment purchases electric school buses in Multnomah County school districts that are already engaged in fleet electrification projects and will reduce student exposure to toxic pollutants and reduce greenhouse gas emissions.

Program Description

Although no area of Multnomah County has safe levels of traffic-related pollution, the pollution “hot-spots” are in neighborhoods with higher proportions of residents who are people of color. The disproportionate exposure to traffic-related emissions mirrors health disparities in the community, particularly asthma, cardiovascular disease, low birth-weights and more recently morbidity and mortality related to COVID-19. Children are especially vulnerable to air pollution because their lungs are still in the developmental phase and they breathe, on average, 50% more air per pound of body weight than adults. School children who ride on older diesel school buses that lack pollution controls have a 4% increased likelihood of developing cancer due to diesel particulate matter in their lifetime. In addition, exposure to diesel exhaust enhances allergic response, can induce new allergies to airborne allergens, and exacerbate asthma. A recent study in Washington State found that children riding on cleaner school buses reduced a marker for inflammation in the lungs by 16 percent over the whole group, and 20-31 percent among children with asthma, depending on the severity of their disease. Moreover, children riding on cleaner buses had a 6-8% reduction in the risk of absenteeism. Cleaner buses means healthier kids who are more ready to learn.

The County will identify a school districts that have access to other sources of funding for school bus electrification. This will be accomplished through collaboration with Portland General Electric, which offers a variety of incentives for fleet electrification, the Department of Environmental Quality that administers clean fleet incentives, and the school districts. By leveraging existing school bus electrification projects, the County can maximize the funds to purchase new buses instead of allocating resources to charging infrastructure. To further maximize funds, the County will pay for the incremental cost of an electric bus over the cost of a conventional diesel powered bus, the remainder of the cost will be reimbursed from the state. In addition, the County will focus on school district owned and operated equipment to make sure these investments stay in Multnomah County. Finally, the County will ask the school district(s) to replace their oldest buses with these funds to help ensure that health benefits are maximized.

Performance Measures

Measure Type	Primary Measure	FY22 Actual	FY23 Budgeted	FY23 Estimate	FY24 Offer
Output	Number of school buses replaced*	N/A	2	0	2
Outcome	Lifetime Cost Effectiveness (\$/short ton reduced) for diesel particulate matter**	N/A	\$62.9 Million	\$0.00	\$62.9 Million

Performance Measures Descriptions

*The estimated incremental cost of replacing a diesel bus with an all electric bus is \$250,000, so a total of two buses will be replaced. **Calculated using EPA Diesel Emissions Quantifier and assumes replacement of a model year 2010 diesel powered bus. Currently the County is in the process of finalizing intergovernmental agreements with Portland Public School District and Centennial School District for the transfer of funding to support the purchase of electric school buses.

Revenue/Expense Detail

	Adopted General Fund	Adopted Other Funds	Proposed General Fund	Proposed Other Funds
Program Expenses	2023	2023	2024	2024
Contractual Services	\$0	\$500,000	\$0	\$500,000
Total GF/non-GF	\$0	\$500,000	\$0	\$500,000
Program Total:	\$500,000		\$500,000	
Program FTE	0.00	0.00	0.00	0.00

Program Revenues				
Intergovernmental	\$0	\$500,000	\$0	\$500,000
Total Revenue	\$0	\$500,000	\$0	\$500,000

Explanation of Revenues

Federal American Rescue Plan (ARP) through State of Oregon Funding (year two of two years) - \$500,000

Significant Program Changes

Last Year this program was: FY 2023: 10096 Sustainability - Electric School Buses

This program offer falls under the County's Public Health Emergency Response ARP Priority Area.