

Submitted By: ACCGov: Sustainability in partnership with Transportation and Public Works and Central Services
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Project Type: Streets/Roads/Bridges related projects - Transportation & Public Works Department

Previously submitted but not selected: No

Continuation Project: Yes - TSPLOST 2023; 20-Electrify the Fleet

Executive Summary: ACCGov is committed to 100% clean energy by 2035. The most challenging fleet transitions are associated with medium/heavy vehicles and "metered" equipment. This pilot project includes the purchase of electric lawn mowers and roadway equipment and an electric dump truck. Starting with the purchase of an electric dump truck, electric lawn mowers, and electric roadside management equipment will help guide future purchases and, ultimately help ACCGov transition to clean energy more effectively.

Project Total Cost: \$ 841,000

Total Annual Operating Savings: \$ (2,500)

Does this Project require the acquisition of any land? No

Project/Program Description: ACCGov has committed to transitioning to 100% clean energy by 2035 for its operations. One of the challenging aspects of transforming the fleet is the electrification of medium and heavy vehicles and heavy-duty equipment (i.e. "metered") needed for roadway corridor maintenance. This pilot project includes the purchase of electric lawn mowers and roadway equipment and an electric dump truck. By starting at a small scale, ACCGov will gain a greater understanding of the challenges and most effective ways to deploy "heavy" equipment and vehicles, making future deployment more effective and less costly. A pilot project will also help ACCGov gain greater insights into long-term life-cycle cost and how to best deploy this rapidly evolving technology.

How is this Project recommended/included in any approved ACCGOV Land Use Plan, Master Plan, Corridor Study, or Service Delivery Plan? This type of project was included in the ACCGov Clean and Renewable Energy Plan as well as the ACCGov Strategic Plan (Goal Area 6).

PROJECT JUSTIFICATION

How will the Project meet the stated Program Goals in the Mayor & Commission Strategic Plan to provide long-term, ongoing contributions to the Sustainable Transportation needs of the Athens-Clarke County?

Goal Area 1; Section D: Drive community transformation with a focus on creating spaces that are respectful and welcoming: This project reduces pollutants, especially noise, creating a more welcoming and inviting space. Electric equipment is significantly quieter than comparable fossil fuel equipment. With the reduction of noise and fumes, residents will experience cleaner air and hear more natural sounds, creating a more peaceful and welcoming environment.

Goal Area 1; Section E: Support & promote healthy lifestyle: moving, eating, forming healthy relationships, physical and psychological care: The use of electric vehicles in construction, maintenance and landscape areas will: decrease the local air and noise pollution; promote a more pleasant experience for ACC residents in various outdoor areas; and encourage fitness and outdoor experiences. Exposure to high noise levels and air pollutants have a negative effect on an individual's physical and mental health. This project will directly improve the health of vehicle operators while also reducing the public's exposure to these risks.

Goal Area 5; Section A: Improve, expand, and maintain sidewalks, shared-use paths, and bike facilities to provide greater opportunities for residents to use active transportation safely: This type of equipment is integral to the maintenance of transportation corridors. Transforming to cleaner, quieter, more efficient equipment provides safety benefits to both workers and the public.

Goal Area 5; Section D: Create more usable and aesthetically pleasing corridor connections between residential and commercial areas: This project will help ACCGov work toward creating a more enjoyable experience for the public when these vehicles are in use by reducing both noise and air pollution. Using electric equipment also enables corridor maintenance to continue while nearby residents and transportation corridor users experience less interruption or disturbance from noise and fumes.

Goal Area 6; Section C: Provide adequate funding for maintenance of existing and newly constructed infrastructure: By investing in this pilot program, ACCGov Transportation & Public Works and Landscape Management will be provided with non-polluting, electric vehicles and equipment critical to maintaining current infrastructure. Furthermore, this pilot will enable ACCGov to assess future deployment of medium to heavy duty electric vehicles. Electric vehicles cost less to maintain and, effectively deployed, can result in long term savings for ACCGov taxpayers.

Goal Area 6; Section D: Follow through on commitment to 100% Clean and Renewable Energy resolution: This project directly aligns with the 100% Clean and Renewable Energy Plan by working toward the transition of ACC fleet to zero-emissions vehicles and equipment.

Goal Area 6; Section E: Address ecosystem health, infrastructure sustainability, and resilience: These pilot projects help advance ACCGov goals to reduce air, water, noise, and land pollution associated with fossil

fuels. Additionally, electric vehicles can be incorporated into resilience planning, acting as mobile power sources in the case of grid failure.

Project Costs

Detailed project capital budget costs (to be funded from TSPLOST 2026 only):

Project Costs (round to thousand)		Amount
1. Land Acquisition / ROW / Easement:	\$	
2. Design Fees: (Min.12% of New Const.; 14% of reno,; 16% for LEED proj.)	\$	
3. Miscellaneous Fees: (Min. Minimum of 3% of Construction Costs – used for permitting, etc. Utilize minimum of 10% if land acquisition if necessary.	\$	
4. Construction:	\$	
5. Construction Contingency: (10% of the Construction line item)	\$	
6. Acquisition of Capital Equipment:	\$	720,000
7. Testing:	\$	
8. Project Management: (4% of the total budget line items above)	\$	29,000
9. Project Contingency: (10% of the total budget line items above)	\$	75,000
10. Public Art: Calculated at 1% of the Construction line item.	\$	
11. Other 1:	\$	
12. Other 2:	\$	
Project Subtotal:	\$	824,000
14. Program Management (2% of Project Subtotal):	\$	17,000
TSPLOST 2026 Project Total:	\$	841,000

Project Financing

Is the proposed Project to receive funding from source(s) other than TSPLOST 2026? No

Operating Cost

Total Annual Net Operating Costs when Project is complete:

Only identify additional or net operating costs to be paid by ACCGov as a result of this Project. Identify the additional or net costs needed, above ACCGov's current operating budget, to operate the requested project; as well as any additional Project related revenues that would be generated. Provide budget costs for each identified category below.

Operating Costs (round to thousand)	Estimated Impact for Annual Operating Expenditures
TOTAL PROJECTED REVENUES FROM PROJECT	
PROJECTED EXPENDITURES	
1. Personnel Costs: from Appendix A	
2. Annual Utilities:	
• Natural Gas:	
• Electrical:	15,000
• Water:	
• Sewer:	
• Phone:	
• Solid Waste Collection:	
• Other:	(20,000)
3. Operating Supplies:	
4. Equipment Maintenance:	2,500
5. Facility Maintenance:	
6. Other:	
7. Other:	
8. Other:	
TOTAL EXPENDITURES (ANNUAL SAVINGS)	
NET OPERATING COSTS OF PROJECT:	\$ (2,500)

The Complex Transition to Electric Tools/Vehicles Pilot – TSPLOST 2026

Projected Cost – Summary

1. Electric Truck with Dump Style Bed - \$600,000

- Purchase of truck (includes attachments, lights, etc.) and “dump” bed - \$550,000
 - Estimated cost of chassis based on Zeus Z-19: \$225,000.00
 - Estimated Cost of dump bed with necessary features based on Knapheide Heavy Duty Side Contractor Dump: 350,000
- Purchase and installation of Level 2 charger: \$5,000
- Vehicle Acquisition Associated Fees: 15,000

2. Purchase of 2 mowers and charging infrastructure - \$80,000

- Zero turn mowers (2) and robotic mowers

3. Purchase of electric maintenance equipment and electrical upgrade - \$40,000

- Chainsaws, weed-eaters, etc.