Fleet Conversion

- Electrification Coalition 2024 Analysis for City of Toledo Fleet:
 - Data points: total cost of ownership (TCO), insurance, maintenance, fuel cost, depreciation.

	Original Cost	EV Cost per
	per Mile	Mile
Delivery Truck	\$4.96	\$8.52
Freight Truck	\$7.33	\$10.46
Minivan	\$1.29	\$1.00
Motorcycle	\$0.43	\$0.31
Pickup Truck	\$1.84	\$2.83
Refuse Truck	\$16.11	\$21.55
Sedan	\$0.74	\$0.54
SUV	\$4.25	\$3.87
Vans	\$3.28	\$4.99
Work Truck	\$6.28	\$11.88

- o Recommendations:
 - Begin fleet conversion for all minivans, motorcycles, sedans, and SUVs now.
 - Monitor truck and work van technology and determine feasibility as new fuel sources become commercially available. Possible fuel sources: CNG, hydrogen, biodiesel.
- See DRVE report attached for top 100 City vehicles to replace and recommended EV model for each VIN. All recommendations are US brands. Number one recommended make and model: 2022 Chevy Bolt
- Health and Safety
 - o EPA Air Quality Stakeholders Meeting on January 31, 2024:
 - Lucas County is non-compliant with new VOC and NOx standards, which cause Ozone pollution.
 - Noncompliance with Ozone negatively impacts economic development opportunities, as companies that produce VOCs and NOx via manufacturing will not be permitted to locate in Lucas County.
 - EPA confirmed it is non-point source, and the most likely contributor is **vehicles and vehicle idling**.
 - o At least one City vehicle has been stolen due to being left unattended and idling.

- Fuel Wasted January-June 2024:
 - o Data sourced from Samsara tracking system.
 - o Idling is defined as: vehicle is **on**, in **park**, has been on and in park for over **2 minutes**, and **PTO** is **not engaged**.

Department	Wasted Fuel in Gallons	
Code Compliance	487.36	
FAFO	903.28	
Leaf Pick-up & Removal	590.9	
Parks Recreation and Youth Services	848.75	
Road & Bridge Maintenance	13,666.43	
Road & Bridge Maintenance / UB	4,616.74	
Sewers and Drainage	19,772.37	
Snow & Ice Control	1,375.89	
Urban Beautification	16,923.98	
Water Distribution	15,367.19	
Water Treatment	1,462.13	
TOTAL	76,015.02	
Average fuel cost in 2024	\$3.37	
TOTAL COST	\$256,170.62	
ANNUAL COST of WASTED FUEL	\$512,341.23	
TOTAL EMISSIONS PRODUCED	676 Metric Tons of CO ₂	

- Number of 2022 Chevy Bolts (priced at \$20,029 per Edmunds) that could be purchased per year if vehicles were not permitted to idle: 25
- This does not account for the \$7,500 per vehicle IRA Tax Credit. With tax credit, number of vehicles that could be purchased per year: 34