Green Fleet Policy

In 2009 the Tompkins County Legislature adopted a green fleet policy for the County which requires each department to reduce its fleet emissions by 2 percent annually in order to help the County reach its emissions reduction goals. By 2014, nine hybrid vehicles and one electric vehicle had been added to the County fleet, and car sharing between the Planning and Assessment Departments had increased.[14]

As departments replaced vehicles between 2008 and 2014, newer vehicles typically provided greater fuel efficiency, further reducing the County government's emissions. U.S. gas prices experienced a high spike in the second half of 2008, and in 2009 major changes began in the Corporate Average Fuel Economy (CAFE) standards for new vehicles sold in the U.S. to encourage greater fuel efficiency. These changes have resulted in manufacturers producing vehicles with lower CO2 emissions and record fuel economy.[15]

While the 2008 inventory found that increasing fuel consumption by the County's fleet was contributing to increased County emissions between 1998 and 2008, the 2014 inventory finds a successful reversal of this trend. In addition to the green fleet policy, improved fuel economy of newer vehicles, and car sharing to slightly lessen the need for additional vehicles, technology may also be playing a role. Webinars and web-based meetings have become more common, and County facilities and technology have been improved to encourage participation in online meetings. Although vehicle miles traveled (VMT) was not tracked in 2008, there is anecdotal evidence that travel for in-person meetings both within the County and to more distant destinations, such as Albany, has been declining and resulting in less fuel consumption and associated vehicle emissions.

Changing Vehicle Fuels

In 2014, 3,566 gallons of fuel purchased for vehicles using gasoline were blended with ethanol (5.7% or 10%), resulting in lower emissions than unblended gasoline. Although ethanol blended gasoline was not tracked separately in 2008 and all gasoline was considered to be unblended, increasing oil prices and changing energy regulations in 2008 helped to increase the proportion of ethanol blended gasoline used in vehicles by 2014, including the County's fleet.

In 2009 the Tompkins County Highway Department began transitioning its diesel vehicles, which account for more than three-quarters of its fleet, to B10 and B20 biodiesel. Biodiesel emits less CO_2e than conventional diesel, and this change accounts for 59.4 percent of the reduced vehicle fleet emissions between 2008 and 2014.

Although it does not reduce emissions in the context of the software used in this inventory, County vehicles used 4,641 gallons of ultra-low-sulfur diesel (ULSD) in 2014, whereas in 2008 all diesel vehicles were using traditional diesel fuel. Diesel fuel use is the primary source of black carbon emissions in the U.S., and the combination of ULSD and newer diesel vehicles designed for ULSD use has greatly reduced this component of particulate matter (soot).[16] The U.S. Environmental Protection Agency expects reduced black carbon emissions to provide climate benefits within the next several decades due to its short atmospheric lifetime and strong warming potential.

[14] Although the electric vehicle was in use in 2014, it has since been removed from the County fleet, so the County currently does not have any electric vehicles.

[15] Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends:1975-2015, https://www3.epa.gov/otaq/fetrends.htm

[16] https://www.eia.gov/environment/emissions/ghg_report/ghg_overview.cfm, https://www3.epa.gov/blackcarbon/mitigation.html