

Emission Reduction Analysis Options
Lake County Fleet
May 2, 2018

Background

On March 28, 2018 the Finance Committee directed staff to investigate how we could analyze Lake County's (County) vehicle fleet in an effort to determine how to reduce emissions. The following options are being presented for further consideration by the committee.

Baseline Emission Data

Objective:

- Investigate options to develop baseline fleet carbon footprint and future updates

Benefits:

- Aligns with County's sustainability goal to develop an overall baseline carbon footprint
- Enables future data-driven decisions (e.g. would greater emission reductions be realized from a \$200,000 investment in electric vehicles or a more efficient building HVAC system)

Potential Solutions:

- Use available fleet data to establish a baseline (*item to be completed under current sustainability contract*)
- Install technology to automate accurate tracking of mileage and fuel usage for every fleet vehicle

Establish an Aspirational Goal

Objective:

- Analyze cost and benefit of setting a goal to convert X% (say 5 or 10) of the fleet to an alternate fuel source within the next X number of years (say 5 to 10)

Benefits:

- Provide economic and environmental data to frame a go/no-go decision
- Establishes a timeline for achieving a specific goal

Potential Solutions:

- Convert 5% of the fleet to electric/hybrid over the next 7 years at a cost of X with a carbon footprint reduction of Y

Specific Methods to Reduce Emissions

Objectives:

- Perform a detailed analysis on a set of specific emission reducing options

Benefits:

- Provides cost and benefit data around a specific method
- Outcomes can be used to develop new vehicle standards selection criteria

Potential Methods:

- Investigate installing idle reduction technology on certain vehicle classes
- Investigate cycling fleet at shorter intervals (e.g. 4 years vs 8)
- Investigate alternate fuel sources (e.g. E85, CNG, Hydrogen, Hybrid, Electric, Propane)
- Investigate developing vehicle selection policies around specific carbon footprint criteria

Next Steps

Planned

- Develop baseline emission data with current fleet information (part of current sustainability contract to be completed in 2019)
- Investigate fleet emission tracking technology (Q1, 2019)

As directed by Committee

- Complete analysis on establishing an aspirational goal (Q1, 2019)
- Complete analysis of vehicle selection policies (Q1-2, 2019)
- Complete analysis of idle reduction technology (Q1-2, 2019)
- Complete analysis of cycling fleet at shorter intervals (Q1-2, 2019)
- Complete analysis of alternate fuel sources (Q2-3, 2019)

Staff Effort and Consultant Fee

- The estimated staff effort is 20-40 hours per each option
- The County's sustainability consultant has proposed to provide support services for these further investigations for an additional fee of \$5,000-\$10,000 (total for all options)