

Dover Greenhouse Gas and Nitrogen Inventory Report for Municipal and School Operations (2019)

Summary:

This report established a first of its kind baseline inventory for greenhouse gas and nitrogen impacts for local government operations in Dover.

Keywords:

- Greenhouse gas
- Nitrogen
- Climate change
- Energy
- Carbon
- Footprints

Emissions sectors analyzed in the report include: stationary fuels, purchased electricity, the municipal fleet, employee commuting and travel, fertilizer and animals, school cafeteria food, solid waste, paper use, transmission and distribution losses, and wastewater treatment.

Key Points:

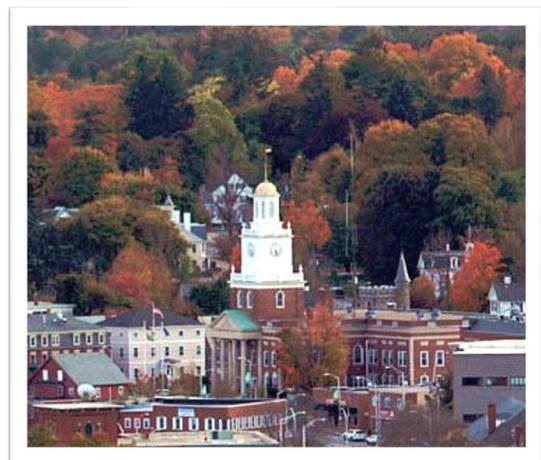
- Emissions are reported from scope 1, 2 and 3 categories (See reverse page).
- Municipal operations generated 9,896 metric tons (MT) of carbon dioxide equivalent (CO₂e) in 2016 and 9,560 MT of CO₂e in 2017.
- Recommendations to lower the carbon footprint include: reducing purchased electricity through the installation of more solar arrays, providing incentives for employees to carpool and increasing the number of electric vehicles in the municipal fleet.
- Reactive nitrogen released to the environment was 40 MT in 2016 and 42.3 in 2017.
- Recommendations to lower the nitrogen footprint include: improving stormwater infrastructure to aid with point source removal and non-point source management, providing more alternative sources of protein on the school lunch menus and replacing diesel vehicles in the municipal fleet with non-diesel alternatives.

Suggested Uses:

As this is a baseline report it allows for progress to be tracked by comparing current energy, greenhouse gas and nitrogen metrics to those contained within the document. This report should be consulted when identifying opportunities to reduce impacts of emissions ranging from operational procedures to capital improvements projects.

Other Relevant Resources:

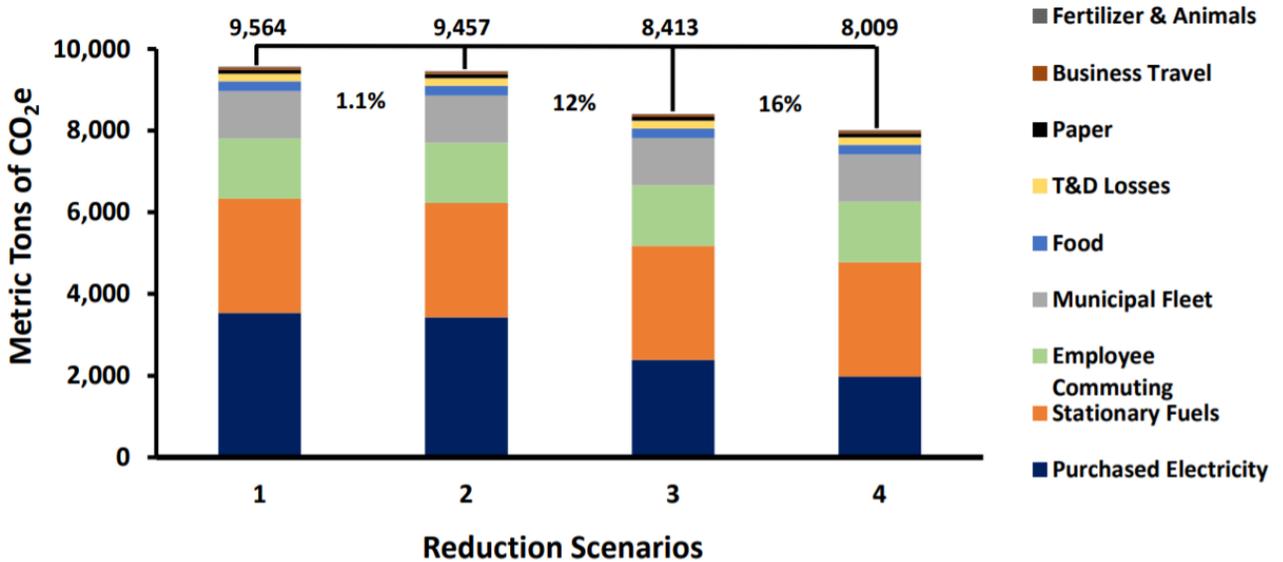
City of Dover 2021 Energy Commission Report



[Find this and other resources on Dover's Climate Resources Webpage](#)

Example Figures and Tables

Reduction scenarios provide insight into the projected positive impacts that a list of actions will have on the overall carbon footprint. In this case reduction scenarios were based off an increase in solar arrays.



The below table is an example of tables in the document that list energy usage per source in raw and normalized units as well as the cost in U.S. dollars. Each row of data attributes these metrics to the respective properties. Cumulative values are displayed for the years 2016 and 2017.

Property	2016 No. 2 Oil			2017 No. 2 Oil		
	Usage (Gallons)	Usage (MMBtu)	Cost (USD)	Usage (Gallons)	Usage (MMBtu)	Cost (USD)
City Hall	11,562	1,630	23,128	9,545	1,346	17,430
Cemetery Chapel	1,417	200	2,846	1,178	166	2,132
Cemetery Barn	1,183	167	2,393	793	112	1,457
Bellamy Park Admin.	474	67	967	179	25.3	332
Middle Rd. WWTP	9,298	1,311	20,050	5,135	724	9,024

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New Hampshire
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