

Town of North Hempstead

Community Greenhouse Gas Inventory 2010 Summary

This Greenhouse Gas Emissions Inventory Report for the Town of North Hempstead¹ is an essential component in assessing the Town's baseline emissions. A community greenhouse gas (GHG) inventory is an accounting, analysis, and report of the GHG emissions resulting from transportation fuels, waste, energy usage in buildings, and other sources within a given geographic boundary. The inventory identifies activities that are responsible for GHG emissions, quantifies the level of each activity, and then calculates the associated emissions.

The community GHG inventory reveals which sectors have the highest emission levels to help local governments create and implement policies, projects, and programs that incentivize and encourage GHG reductions in those specific sectors throughout the community. Together these reports inform the Town's policies, programs, and projects that aim to reduce GHG emissions.

This report included emissions for each community on Long Island in various predefined sectors. This inventory includes community wide GHG emissions by sector, including residential, commercial, transportation, waste management, and energy supply, for a 2010 baseline year.

SECTOR	SOURCE DESCRIPTIONS
Residential	Stationary energy used in residential, commercial, industrial buildings and other non-mobile uses (e.g., electricity, natural gas, fuel oils, wood and propane).
Commercial	
Industrial	
Mobile Energy	Fuel consumption for on-road transportation, passenger & freight rail, aviation, marine transit & off-road vehicles.
Solid Waste	Non-energy process emissions from landfills.
Wastewater Treatment	Non-energy process emissions from wastewater treatment plants or septic systems (e.g., methane emissions from anaerobic decay).
Industrial Processes	Non-energy process emissions from industrial activity & fugitive emissions from fuel systems (e.g., CO ₂ from cement production, A/C coolants, & leakages).
Agriculture	Non-energy emissions from crops & livestock (e.g., methane & nitrous oxide emissions from fertilizers).
Energy Supply	Energy generation & fugitive emissions and energy losses due to the transmission and distribution of electricity and natural gas.

Table 1. Descriptions of energy generating sectors

In 2010, North Hempstead's total community GHG emissions were approximately 3,990,215 MTCO₂e. The largest source of GHG emissions was from transportation, mostly from gasoline vehicles, which is responsible for 35% of emissions, or 1,413,704 MTCO₂e. The second largest contributor is from residential energy consumption (such as home heating and lighting), which is responsible for 30% of emissions, or 1,194,725 MTCO₂e. Commercial energy consumption was a close third at 27%.

¹ The information in this report was obtained from the Long Island Carbon Footprint Project completed by the New York Institute of Technology.

See Appendix A for more details on specific emissions from each sector.

North Hempstead Community GHG Inventory 2010

GHG Emission Sectors	MTCO ₂ e*
Residential	1,194,725
Commercial	1,074,790
Transportation	1,413,704
Waste	221,205
Energy Supply	85,791
Total Emissions	3,990,215

*Metric tons of carbon dioxide equivalent

Table 2. North Hempstead – 2010 total GHG emissions by sector

2010 North Hempstead Community GHG Inventory by Sector

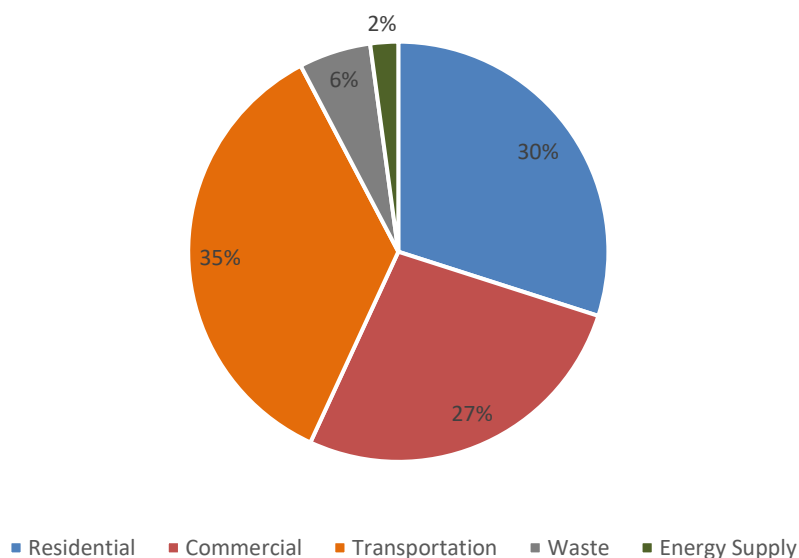


Figure 1. North Hempstead proportion of GHG emissions by sector.

Future Goals

The community greenhouse gas inventory provides important information to help guide the Town of North Hempstead’s climate action initiatives. The results from the 2010 community inventory show North Hempstead needs to reduce community emissions in transportation and residential and commercial sectors most. We intend to compare this with a more recent inventory to determine if this is still the case. The Town has already carried out or is currently working on the following actions to reduce community emissions:

- In 2022, the Town hosted three free public workshops titled the Transportation Innovation Series, which focused on alternative transportation, like using public transport, bicycles, and electric vehicles.
- The Town hosts a bike share program with PedalShare in Port Washington at 3 locations- Town Dock, Manorhaven Beach Park and Port Washington LI Railroad Station.

- The Town has partnered with Blink Charging to install EV charging stations for public use on Town properties.
- The Town plans to do more outreach regarding renewable energy options for homes and businesses such as solar and heat pump systems.

Since this inventory was completed over 10 years ago the Town hopes to complete an updated inventory to guide its actions in the community to reduce emissions. Recently the Town concluded a community wide survey to gauge beliefs, perceptions, and concerns about climate change. This will also be utilized when planning future actions to mitigate climate change. We are planning to create a community climate action plan, which will help guide us in this process.