Onondaga County
Government Operations
Greenhouse Gas Inventory
2018 - 2023

Prepared For

Onondaga County

421 Montgomery Street
Syracuse, New York

February 2026

Onondaga County
Government Operations Greenhouse Gas Inventory
2018 - 2023

February 2026

Prepared For:

Onondaga County
421 Montgomery Street
Syracuse, New York 13088

Prepared By:

Barton & Loguidice, D.P.C.
443 Electronics Parkway
Liverpool, New York 13088

TABLE OF CONTENTS

Section **Page**

TABLE OF CONTENTS

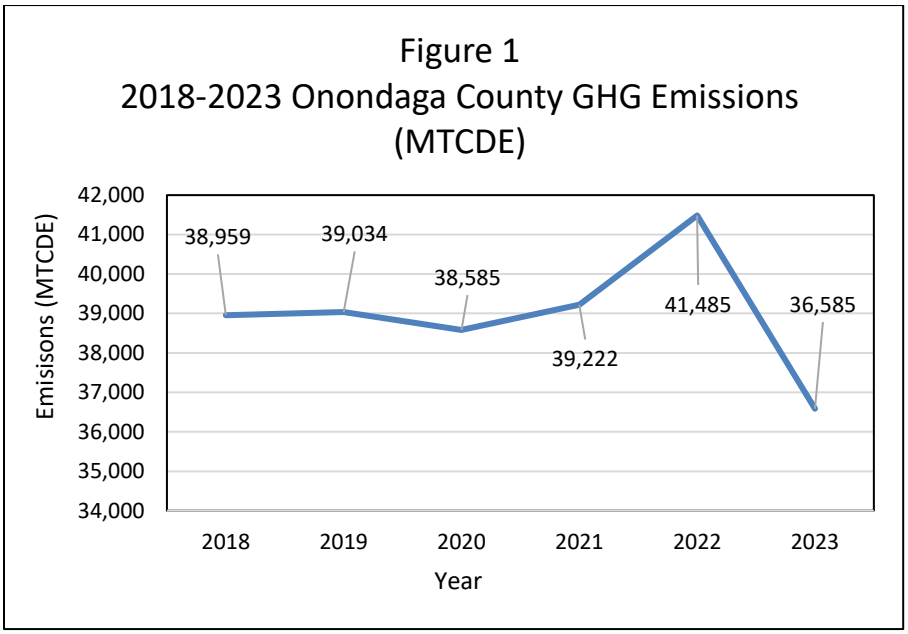
Section **Page**

Tables

Figures

EXECUTIVE SUMMARY

This report presents the greenhouse gas emissions inventory (GHGI) for Onondaga County government operations for calendar years 2018 through 2023. The analysis builds on previous inventories, including the initial baseline emissions inventory year 2008, as well as subsequent emission inventories through calendar year 2017. This GHGI aligns with New York State (NYS) climate policy, including the Climate Leadership and Community Protection Act (CLCPA), and supports the County's participation in the NYS Climate Smart Communities (CSC) program. The report satisfies the Pledge Element Action 2 of the CSC program, which Onondaga County has been a member of since 2013.



Between 2018 and 2023, Onondaga County's government operations produced annual greenhouse gas (GHG) emissions ranging from 36,585 to 41,485 metric tons of carbon dioxide equivalent (MTCDE). Emissions remained relatively stable from 2018 through 2021, fluctuating modestly between 38,585 and 39,222 MTCDE. In 2022, emissions peaked at 41,485 MTCDE, corresponding to the peak year of natural gas use. This peak natural gas use occurred primarily because Onondaga County Department of Water Environment Protection (WEP) was upgrading its anerobic digesters and was unable to use biogas for its boilers. That project has since been completed. By 2023, emissions declined to a six-year low of 36,585 MTCDE, reflecting the County's ongoing efforts to reduce energy consumption and benefit from a cleaner regional electricity grid. Overall, this period demonstrates a slight downward trend in emissions, with notable progress achieved by the end of the inventory period.

Key Factors Influencing Emissions Reductions

Several drivers contributed to the decline in reported emissions.

The County made the following changes since 2017:

- Decreased Operation Footprint: The GHG emission totals from 2018–2023 have been updated from the baseline to reflect a revision of the inventory boundary. Operations that are no longer under County responsibility, including the OnCenter and Convention Center ("OnCenter"), Van Duyn Home and Hospital ("Van Duyn"), and the Metropolitan Water Board (MWB), were removed.
- Improved Building Efficiency: Energy upgrades in County-owned facilities led to reductions in electricity and natural gas consumption.
- Fleet Management: The County's transition to more fuel-efficient vehicles contributed to lower transportation emissions.

The methodology and emission factors used to estimate emissions changed since the original effort in 2008 and the updated baseline in 2012-2017, specifically:

- Updated Emissions Methodology: Onondaga County began tracking GHG emissions before the current standardized inventory methodology. The current GHGI utilizes the most recent standardized inventory methodology.
- Utilizing Updated Emissions Factors: Emission factors are published by the U.S. Environmental Protection Agency (EPA) and International Panel on Climate Change (IPCC) to reflect the most up-to-date information on how emissions from certain gases affect the warming of the planet. Due to improvements in infrastructure and technology, these factors have been re-evaluated and show decreasing quantities of pollutants emitted by certain activities over time. The use of updated emission factors lowered emissions, improving accuracy.
- Grid Decarbonization: Continued decreases in the emissions intensity of electricity supplied to the upstate New York region (e.g., updates to U.S. EPA's Emissions & Generation Resource Integrated Database (eGRID) factors) accounted for some emissions reductions.

Departmental Emissions Snapshot (2023)

Emissions sources in 2023 were distributed across several County departments, with the Department of Water Environment Protection (WEP), Facilities Management, and Department of Transportation (DOT) among the highest emitters. The largest contributor of GHG emissions by department was the Department of Water Environment Protection, accounting for an average of 49% of overall emissions throughout the inventoried years (including process emissions from wastewater treatment).

Stationary energy use in County buildings (electricity and natural gas) remains the largest source of emissions from County operations, accounting for an average of 71% of overall annual emissions, followed by transportation fuel use (gasoline and diesel fuel), accounting for an average of 17% of overall annual emissions.

Updates to Prior GHGI and Baseline

The County Climate Action Plan (CAP), which includes a corresponding GHGI, is designed to be flexible to account for changing circumstances and new technology, and it is recommended that the County revisits the prior GHI and baseline annually. For example, the most recent 2017 GHGI included updates to the prior 2008 Baseline and 2012-2017 annual GHG emissions which accounted for CSC methodology updates, the sale of Van Duyn Home and Hospital ("Van Duyn"), and the consolidation of the Metropolitan Water Board (MWB) with the Onondaga County Water Authority. The Onondaga County Water Authority is outside of County operational control boundary.

Similarly for this inventory, the baseline and prior GHGI inventories were reviewed and updated. The following updates were made to the prior GHGI and the baseline year:

- The OnCenter and NBT Bank Stadium are no longer considered within the County operational boundary and were removed; and
- The electricity emission factors were revised to more accurately estimate prior year indirect emissions from electricity use using eGRID-published factors for the corresponding years.

Comparison to 2017 GHGI

When considering the same buildings and operations, total energy use across key sources decreased between 2017 and 2023. During this period, the County experienced the following changes in energy consumption:

- 16% decrease in gasoline usage
- 28% decrease in diesel fuel usage
- 5% decrease in electricity usage
- 6% increase in natural gas usage

These shifts in energy usage contributed to corresponding reductions in greenhouse gas emissions.

By 2023, total emissions had decreased to **36,585 MTCDE**. This is a reduction of approximately **11%** from the adjusted 2017 total, and a 39% reduction from the adjusted 2008 Baseline.

It is important to note that some changes, such as the removal of the OnCenter and updates to electricity emission factors, skew total County GHG emissions. For transparency, adjusted GHG emissions were evaluated. The County's 2017 Climate Action Plan Annual Update Report originally listed total emissions of 63,588 MTCDE. The 2017 and prior year inventories included emissions from the OnCenter, which has since been removed because it is no longer under County operational control. Adjusted 2017 emissions without the OnCenter total is 61,523 MTCDE, a 3% decrease. Electricity emission factors also declined by 12% between 2017 and 2023. When accounting for this change, the adjusted 2017 emissions total is 40,943 MTCDE.

ABBREVIATIONS

AR3	Third Assessment Report
AR5	Fifth Assessment Report
ATAD	Autothermal thermophilic aerobic digestion
CAP	Climate Action Plan
CFC	Chlorofluorocarbons
CH_4	Methane
CLCPA	Climate Leadership and Community Protection Act
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalents
CSC	Climate Smart Communities
DOC	Department of Corrections
DOT	Department of Transportation
EI	Emissions inventory
EV	Electric vehicle
GHG	Greenhouse gas
HFC	Hydrofluorocarbons
IPCC	Intergovernmental Panel on Climate Change
kWh	Kilowatt-hours
LEED	Leadership in Energy and Environmental Design
LGOP	Local Government Operations Protocol
mcf	thousand cubic feet
MMBtu	Million British thermal units
Mmt	Million metric tons
MTCDE	Metric tons of carbon dioxide equivalents
MWh	Megawatt-hours
N_2O	Nitrous oxide
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSERDA	New York State Research and Development Authority
ppm	Parts per million
RAS	Return activated sludge
SUV	Sports utility vehicles

ABBREVIATIONS (Continued)

U.S. EPA	United States Environmental Protection Agency
VFD	Variable frequency drive
VMT	Vehicle miles travelled
WEP	Water Environment Protection
WWTP	Wastewater treatment plant

1.0 INTRODUCTION

The Climate Smart Communities (CSC) program is a New York State (NYS) initiative that helps local governments take action to reduce GHG emissions and adapt to a changing climate as outlined in New York's Climate Leadership and Community Protection Act (CLCPA). Onondaga County took the Climate Smart Communities (CSC) pledge and drafted their original Climate Action Plan (CAP) in 2012, which enables the County to receive technical support and assistance from New York State to help the County progress through the 10 CSC pledge elements. As part of the County's Climate Action Plan, the County developed a baseline greenhouse gas emissions inventory (GHGI) for municipal operations associated with its owned and operated buildings and properties. Several updates to the GHGI were completed since, with the last GHG emissions inventory analyzing County-generated emissions from 2017.

Onondaga County, with support from Barton & Loguidice, D.P.C. (B&L), developed a GHGI for the years 2018-2023. This 2023 GHGI tracks the yearly GHG emissions from County facilities from these years and serves as an update to the 2017 CAP Update Report.[1] Together, they serve as the greenhouse gas emissions inventory for the County. The GHGI is updated periodically to measure progress using the plans started by this CSC Program, and the County can use them to assess existing programs as well as potential new emission reduction targets and strategies to achieve outlined climate action goals.

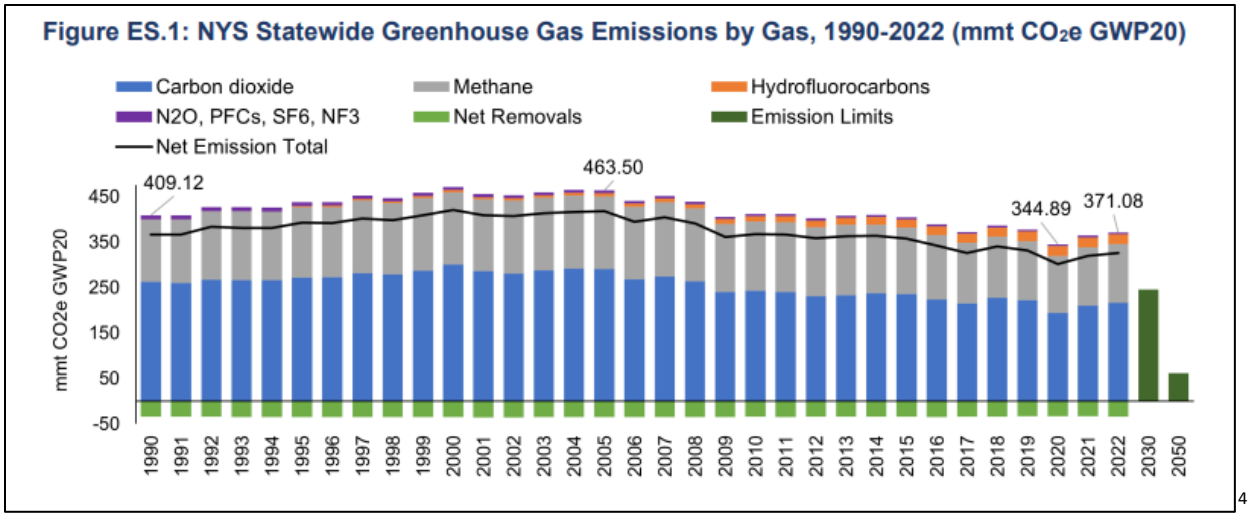
1.1 Climate Leadership and Community Protection Act (CLCPA)

The CLCPA, signed into law in July 2019, established the following statewide targets:

- By 2030: Reduce statewide GHG emissions by 40% below 1990 levels
- By 2040: Achieve a zero-emission electricity sector
- By 2050: Reduce statewide GHG emissions by 85% below 1990 levels

As inventoried by the New York State Department of Environmental Conservation (NYSDEC), statewide baseline emissions were 409.78 million metric tons of carbon dioxide equivalents (MTCDE) in 1990.[2] The CLCPA established emission goals for the years 2030 and 2050 based on these emissions to help the State combat climate change. Total statewide gross emissions in 2022 were 9.4% lower than the 1990 baseline.[3] While emissions have decreased, work remains to meet the CLCPA target objectives. Figure ES.1 from the 2024 Statewide GHG Emissions Report illustrates statewide emissions inventoried from 1990 – 2022 compared to the 2030 and 2050 target levels.

[1] Onondaga County. (2017). *Onondaga County Climate Action Plan: Annual Update Report*, Onondaga County.
[2] Statewide greenhouse gas emission limits, 6 NYCRR §496.4(a). (2020).
[3] New York State Department of Environmental Conservation. (Dec. 2024). *2025 Statewide GHG Emissions Report: Summary Report*, New York State Department of Environmental Conservation. https://dec.ny.gov/sites/default/files/2024-12/summaryreportnysghgemissionsreport.pdf.



[4]

In December 2022, New York's Climate Action Council released its Final Scoping Plan. This plan outlines a variety of regulatory and legal changes, sector-specific strategies, market mechanisms, and technologies essential to achieving the CLCPA's goals and requirements.

The Final Scoping Plan identifies actions needed from a variety of different sectors, economy-wide, for New York to achieve the CLCPA target objectives to reduce greenhouse gas emissions from electricity production.

1.2 Climate Smart Communities

The Climate Smart Communities (CSC) program began in 2009 and helps to provide guidance, technical support, and recognition to communities as they take action to address climate change. Benefits to participating in this program include:

- Cost savings through decreased energy use
- Greater energy independence
- Improved air quality
- Reduction in flood risk
- Green space conservation for people and wildlife
- Investment in a green economy

The first step in becoming a Climate Smart Community is to adopt the Climate Smart Communities pledge and send it to the NYSDEC, which Onondaga County completed in 2009. This pledge is a public commitment to reduce GHG emissions and adapt to a changing climate.

The program is centered on the following 10 priority elements:

[4]New York State Department of Environmental Conservation. (Dec. 2024). Figure ES.1. *2025 Statewide GHG Emissions Report: Summary Report*, New York State Department of Environmental Conservation. https://dec.ny.gov/sites/default/files/2024-12/summaryreportnysghgemissionsreport.pdf.

1. Build a climate-smart community
2. Inventory emissions, set goals, and plan for climate action
3. Decrease energy use
4. Shift to clean, renewable energy
5. Use climate-smart materials management
6. Use climate-smart land use
7. Enhance community resilience to climate change
8. Support a green innovation economy
9. Inform and inspire the public
10. Engage in an evolving process of climate action

The program also includes more than 100 actions to assist in achieving program goals. The actions fall into two (2) categories: mandatory and priority. Mandatory actions are required for certification, and priority actions tend to be relatively low-cost assessments and policies that establish a baseline knowledge and plan for future action. An example of a mandatory action for this program would be the completion of this GHGI, whereas an example of a priority action would be informing and inspiring the public to reduce emissions. Local governments earn points for completing the various actions, and they can attain bronze, silver, and gold certifications as specific milestones are reached.

The 2008 Baseline Report, 2017 CAP report update for the years 2012-2017, and the current GHG Emissions Inventory covering years 2018-2023 were part of the pledge element to "inventory emissions, set goals, and plan for climate action." The CSC program provides an inventory guidance document that was referenced in the preparation of this GHGI update. The 2012 Climate Action Report was also referenced.[5]

1.3 Basis for Development

A GHG emissions inventory is one of the first and most important steps in the local climate action process. In general, an emissions inventory is used as an account of emissions emitted to or removed from the atmosphere during a specific period. This County government operations GHG inventory is an accounting, analysis, and report of the GHG emissions resulting from everyday operations of the County. GHG emissions from the consumption of energy and fuels in government buildings, municipal vehicles, wastewater treatment facilities, and other County government-run facilities and operations are summarized in this inventory.

GHG inventory reports serve as a tool to:

- Identify the largest energy users and sources of GHG emissions, by facility or department, and
- Track emissions over time to help plan for emission reduction efforts

[5] Onondaga County and C&S Companies, "Climate Action Plan," April 2012.

1.4 Government Operations Emissions Inventory Scope

Inventories categorize emissions by "scopes" to provide a consistent way of accounting for emissions based on an organization's level of control. By using scopes to help categorize emissions sources, the County can easily identify GHGs directly emitted by County operations, and those produced by its wider influence. The Climate Smart Communities New York Community and Regional GHG Inventory Guidance (version 1.0, September 2015) (CSC Guidance),[6] consistent with the international Local Government Operations Protocol,[7] further define three (3) emission scopes.

Table 1-1
Emissions Inventory Scope Categories

Scope	What They Cover	Examples
Scope 1	• All direct GHG emissions from municipal operations.	• The use of refrigerants • Combustion of fuel from vehicles and buildings
Scope 2	• Indirect emissions from the use or purchase of electricity.	• Electricity consumption
Scope 3	• Indirect emissions an entity may influence or not control.	• Community, commercial, recreational, and residential sources • Worker commutes

Barton & Loguidice (B&L) worked with the County to define the boundaries of the GHG inventory, including sources and facilities owned and/or operated by the County. The same boundary was maintained between prior GHGI and CAP reports, with the exceptions of reporting emissions separately from the County government emissions total for those facilities that are no longer under the County's operational control.

This Greenhouse Gas Emissions inventory includes Scope 1 and Scope 2 emission sources from County-owned and -operated buildings, equipment, vehicles, and other facilities. This inventory excludes Scope 3 emissions, such as employee commuting, purchased goods and services, and waste disposal, as they are not required under the Local Government Operations Protocol (LGOP) and were also excluded in previous inventories. The focus on Scope 1 and Scope 2 sources ensures consistency and comparability across reporting years.

[6] Climate Action Associates LLC, "Climate Smart Communities: New York Community and Regional GHG Inventory Guidance," version 1.0, Sept 2015.
[7] California Air Resources Board, California Climate Action Registry, ICLEI – Local Governments for Sustainability, and The Climate Registry. "Local Government Operations Protocol," version 1.1, 03 May 2010.

1.5 Greenhouse Gas Emissions

GHGs trap infrared radiation emitted from the Earth's surface and solar radiation emitted by the sun that enters the Earth's atmosphere. By preventing this radiation from escaping, the Earth gets warmer like a greenhouse. The climate changes with the changes in characteristics of the planet, such as temperature.

GHGs include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Certain refrigerants, including chlorofluorocarbons (CFCs) and hydrofluorocarbons (HFCs), also contribute to climate change. CO_2 is the primary GHG emitted through human activities, accounting for approximately 79% of all GHG emissions.[8] Although CO_2 is naturally present in the atmosphere, emissions from human activities have significantly increased the levels of CO_2 (and other GHGs) in the atmosphere since the industrial revolution through fossil fuel combustion, deforestation, and land-use changes, which is causing climate change.

These different GHGs can have different effects on the Earth's warming, and global warming potentials (GWPs) are used to allow for comparisons of the global warming impacts on different gases. GWPs were developed by the Intergovernmental Panel on Climate Change (IPCC) to address the fact that GHGs differ in their availability to absorb energy (referred to as the "radiative efficiency") and how long they stay in the atmosphere (referred to as the gas's "lifetime"). GWPs serve to measure how much energy the emissions of one (1) metric ton of a gas will absorb over a given period, relative to the emissions of one (1) metric ton of CO_2. CO_2 is used as the standard GHG as it is the most prevalent GHG. The larger the GWP, the more that a given gas warms the Earth compared to CO_2 over that time, typically a 100-year time period. In the IPCC Fifth Assessment Report (AR5), methane was assigned a GWP of 28, and nitrous oxide was assigned a GWP of 265. This means that methane can absorb 28 times more energy than CO_2, so 28 times more energy can be trapped in Earth's atmosphere by one metric ton of methane than one metric ton of CO_2.[9]

GHG emissions are typically reported as metric tons of CO_2 equivalents, or MTCDE. This report uses "MTCDE" emission units for consistency with CSC NY Community and Regional GHG Inventory Guidance (CSC Guidance).[10] These are calculated by multiplying the metric tons of each GHG emitted by that GHG's global warming potential and summing the results. Reporting the GHG emissions as MTCDE allows policymakers to compare emissions reduction opportunities across sectors and gases.

[8] United States Environmental Protection Agency, "Overview of Greenhouse Gases," Feb 2024.
[9] Intergovernmental Panel on Climate Change. "Fifth Assessment Report." IPCC, Nov 2014.
[10] Climate Action Associates LLC, "Climate Smart Communities: New York Community and Regional GHG Inventory Guidance," version 1.0, Sept 2015.

2.0 INVENTORY METHODOLOGY, DATA SOURCES, AND CALCULATIONS

This report follows the methodology laid out in the Climate Smart Communities New York (CSC NY) Community and Regional GHG Inventory Guidance ("CSC Guidance"). This was developed by the CSC program and outlines the methods and data sources needed to conduct regional GHG Emission Inventories. Once collected, emissions were calculated using the EPA's Local GHG Inventory Tool: Government Operations Module (version 2023.1) ("the Tool") for wastewater process emissions, and the emission factors identified in the Tool were utilized for additional calculations following the CSC Guidance.

Emission inventories that are updates to baseline emissions are kept consistent to allow for appropriate comparisons of County emissions from year to year. This is achieved by establishing the following during the baseline emissions inventory and keeping them the same during updates:

- The inventory boundary (for example, all County-owned and -operated facilities and other properties within the County)
- The "scopes" selected
- Source types within each scope (for example, stationary combustion sources)
- The method (for example, using the same emissions accounting tool)

In addition to ensuring these are the same, the same GWP would need to be used. Prior baseline emissions may be scaled to the GWPs from the IPCC's Assessment Report used in the current inventory.

2.1 Emissions Sources and Data

Emissions sources were identified through discussions with County staff, who then provided the corresponding 2018-2023 data for use in the emissions inventory calculations. These sources include stationary combustion of fossil fuels, electricity consumption, mobile combustion sources from transportation vehicles, and wastewater treatment. Including these within this inventory captures the emissions generated by County facilities.

The County's 2008 Baseline GHGI and the prior consecutive CAP Update Reports documented emissions for years 2008 and 2012-2017, respectively. These inventories included all data, calculations, tables, and figures. Sources of emissions included in this inventory were based on the outlined sources found in the CSC Guidance. To maintain uniformity between the 2008 Baseline GHGI, prior CAP Update Reports with their corresponding GHGI, and the current GHGI, the same emission sources were inventoried where possible. Once raw data was collected for each of the emission source categories, the data and corresponding emissions were assigned to a specific County department for analysis.

Data sources included:

- County-provided utility invoices
- County-provided energy use summaries
- County-provided fuel use summaries

- County-provided WEX account summaries for fleet vehicles
- Populations served by County-owned wastewater treatment plants (WWTPs)
- WWTP processing data

2.2 Emission Factors

GHG emissions are calculated by using emission factors to convert units of energy consumption (e.g., natural gas therms) into MTCDE. These emission factors are from sources referenced in and incorporated into the Tool and can impact calculated emissions results based on which set of factors are used.

GHG emission factors were obtained from a number of sources identified within the Tool. Stationary emissions factors were sourced from "The Climate Registry 2023 Default Emission Factors and Emission Factors for Greenhouse Gas Inventories" from the U.S. EPA.[11] Electricity factors were sourced from eGRID2018 (released March 9, 2020),[12] eGRID 2019 (released February 23, 2021),[13] eGRID2020 (released January 27, 2022),[14] eGRID2021 (released January 30, 2023),[15] eGRID2022 (released January 30, 2024),[16] and eGRID2023 (released January 17, 2025) for the New York Upstate Region for the corresponding emission reporting years.[17] GWPs were also sourced from the IPCC Fifth Assessment Report.[18] Wastewater treatment process emission factors were sourced from the "Local Government Operations Protocol" (version 1.1).[19] All source activity and emissions factor data were compiled into a database developed for project-specific data storage and management ("Onondaga County GHG Inventory_Government_Data and Calcs").

2.3 Emissions Categorization

An effective way to identify the emissions an entity emits from its own operations and those produced by its wider influence are by emissions categorization. The EPA's Local GHG Inventory Tool: Government Operations Module (version 2023.1) was utilized for data input and emission calculations for wastewater process emissions. Individual department emissions were calculated based on methods

[11] United States Environmental Protection Agency. "*The Climate Registry 2023 Default Emission Factors and Emission Factors for Greenhouse Gas Inventories*." U.S. EPA, September 2023.

[12] United States Environmental Protection Agency. "*eGRID 2018 NYSUP Sub region*." U.S. EPA, Revised March 2020.

[13] United States Environmental Protection Agency. "*eGRID 2019 NYSUP Sub region*." U.S. EPA, Revised February 2021.

[14] United States Environmental Protection Agency. "*eGRID 2020 NYSUP Sub region*." U.S. EPA, Revised January 2022.

[15] United States Environmental Protection Agency. "*eGRID 2021 NYSUP Sub region*." U.S. EPA, Revised January 2023.

[16] United States Environmental Protection Agency. "*eGRID 2022 NYSUP Sub region*." U.S. EPA, Revised January 2024.

[17] United States Environmental Protection Agency. "*eGRID 2023 NYSUP Sub region*." U.S. EPA, Revised January 2025.

[18] Intergovernmental Panel on Climate Change. "Fifth Assessment Report." IPCC, November 2014.

[19] California Air Resources Board, California Climate Action Registry, ICLEI – Local Governments for Sustainability, and The Climate Registry. "Local Government Operations Protocol," version 1.1, 03 May 2010.

and formulas identified in the Tool and included in a project-specific emissions calculator due to constraints in the Tool displaying this information. Data was organized through consultation with the County, similar to the previous CAP Update Reports. Emissions were analyzed by source and Department.

2.3.1 Department Categorization

Within Onondaga County, all facilities inventoried were categorized in one of 11 different "Departments." The term "Department" refers to the primary authority within the County who is responsible for the facility maintenance and decision-making related to energy-related upgrades. Consistent with the 2008 Baseline and 2012-2017 CAP Update Reports, 10 main Departments with facilities were found to play a primary role in this kind of decision-making in the County. Table 2-1 includes a listing of these Departments and a brief description of the types of facilities they oversee. The facilities of all other County departments are operated by Facilities Management and reflected in that Department's emission totals.

Table 2-1
Emissions Inventory Departments with Facilities

Department	Facility Types Covered
Water Environment Protection (WEP)	Includes six (6) County-owned and -operated wastewater treatment plants (WWTP), pump stations, a maintenance facility, a laboratory, administrative offices, and other associated facilities.
Facilities Management	Includes a number of County facilities including the Mulroy Civic Center, Courthouse, and administration buildings.
Department of Transportation (DOT)	Includes four County transportation and maintenance-related facilities and vehicles to maintain 800+ miles of County Roads, culverts, shoulders, Right-of-Ways, as well as 210 bridges.
Parks	Includes all County parks and associated facilities. All facilities included in the County's Park system, including Beaver Lake Nature Center, Rosamond Gifford Zoo, Carpenter's Brook Fish Hatchery, two cemeteries, and administration.
Department of Corrections (DOC)	Includes County correctional facilities and associated facilities (such as Jamesville Penitentiary). The DOC operates its own facilities but is a division of the Sheriff's Office.
Onondaga County Public Libraries (OCPL)	Includes all County-operated public libraries.
Sheriff's Office	Includes facilities within the County Sheriff's office, including the Justice Center, K-9 Kennel, impound lot, and Sheriff administrational buildings.

Table 2-1 Emissions Inventory Departments with Facilities	
Department	**Facility Types Covered**
E-911	Includes County 911 emergency facilities such as the Lt. Michael Hoosock Emergency Management Center, call centers, and towers.
Hillbrook	Includes the Hillbrook Detention Center.
Board of Elections	Includes the County Board of Elections facility.

2.3.2 Operational Control

It should be noted that, although the OnCenter Convention Center and Arena ("OnCenter"), NBT Bank Stadium ("Stadium"), and Empower Federal Credit Union Amphitheater at Lakeview ("Amphitheater") are included in this inventory, the County does not directly oversee and make emissions reduction decisions for these facilities. The OnCenter, Stadium, and Amphitheater totals were not included in the overall MTCDE number reported in the 2018-2023 inventories. Their totals are discussed in a separate section of this report (Section 3.3.1). The OnCenter Convention Center and Arena, which includes the OnCenter, the Upstate Medical University Arena, and associated parking facilities, are owned by the County . The County previously also operated these facilities, as shown in prior CAP reports, but the County no longer serves as the operator for its associated facilities as of 2018, leasing the facilities to third-party operators.

2.4 Changes Between 2017 and 2023 Emission Inventories

Since the 2017 Climate Action Plan (CAP) Update, several operational and methodological changes have influenced the County's greenhouse gas (GHG) inventory.

2.4.1 Operational Changes

Operational changes from prior GHGIs updated for this GHGI are as follows:

- Fuel Source Reporting: The current inventory (2018–2023) includes propane and No. 2 fuel oil consumption for stationary sources, which were not reported in prior inventories for existing facilities.
- Van Duyn Home and Hospital ("Van Duyn") and the Metropolitan Water Board (MWB) were removed between the 2011 and 2017 CAP Reports, as these facilities are no longer owned by Onondaga County.
- Organizational Scope Adjustments: The NBT Bank Stadium and the OnCenter Convention Center facilities have been removed from County operational control and are therefore excluded from the current inventory. This change reduces the total number of facilities tracked in the emissions analysis.

Despite the above adjustments, the majority of data sources remain consistent between the 2017 and 2018–2023 inventories, supporting year-over-year comparability.

2.4.2 Emission Factors and GWP Differences

Emission factors are sourced from the references within the EPA's most recent version of the Tool. The 2017 CAP Update and prior year report used a static emission factor to calculate indirect electricity emissions based on the 2007 eGRID published by U.S. EPA (an eGRID update was not published for 2008). U.S. EPA eGRID emission factors are published annually, as the sources of electricity generation change (e.g., increased renewable sources such as solar and wind compared to fossil fuel electric generation facilities), resulting in a decreased emission rate per kWhr of electricity. Electricity emission factors have decreased by 65% between 2007 and 2023 and by 12% between 2017 to 2023 as the power grid has comprises of more zero-carbon and renewable energy sources, such as wind and solar. Emissions from prior GHGI years have been updated to account for these changing electricity emission factors by using the eGRID emission factor for the corresponding inventory year, providing a more accurate and direct comparison of total emissions between inventory years. The following Table provides a comparison between the previously reported emission totals from the 2017 CAP and GHGI, and the corresponding updates.

Table 2-1
Emissions inventory Departments with Facilities

Year	Total 2017 CAP Reported Emissions (MTCDE)	Total Reported Emissions with eGRID Adjustments (MTCDE)
2008	63,450	59,648
2012	59,338	44,782
2013	62,672	47,631
2014	65,233	46,728
2015	63,208	45,581
2016	63,546	42,907
2017	61,523	40,943

Notes:
1. Includes all previous baseline revisions through the 2017 CAP report.
2. Excludes OnCenter emissions.
3. 2014 electricity values were not directly given within prior CAP reports. Emissions for 2014 were revised based on estimated usage quantities from the percentage difference in MTCDE values between 2014 and 2015 and the total fuel usage values for 2015.

In addition to emission factors, Global Warming Potentials (GWPs) that are used to convert CH_4 and N_2O GHG emissions into MTCDE, were revised. This report uses GWPs from the IPCC Fifth Assessment Report (AR5, 2015) to convert CH_4 and N_2O emissions into metric tons of CO_2 equivalents. Compared to older GWPs, this results in higher reported CH_4 emissions and lower reported N_2O emissions on a CO_2 equivalents basis (see Section 4.1 for details).

3.0 GHG INVENTORY RESULTS

3.1 County-wide Emissions

In total, Onondaga County government operations produced a total of 38,959 metric tons CO_2e (MTCDE) of GHG emissions 2018. Emissions remained relatively consistent in the following years and declined to 36,585 MTCDE in 2023. Table 3-1 presents all GHG emissions by department for the years 2018-2023 compared to the baseline inventory completed in 2008 and the latest CAP update in 2017.

Table 3-1
Total GHG Emissions by Department (MTCDE)

Department (Source)	2008 Baseline[1]	2017 (Prev. CAP) [1]	2018	2019	2020	2021	2022	2023	Change from 2008 (%)	Change from 2017 (%)
WEP (Stationary and Electricity)	23,334	12,685	11,760	12,536	13,546	14,085	14,906	11,782	-50	-7
Facilities Management (Stationary and Electricity)	14,559	9,547	9,887	9,904	9,133	9,221	9,991	9,048	-38	-5
Mobile Source Emissions (All Departments)	8,301	8,156	8,052	7,813	6,662	6,659	6,825	6,439	-22	-21
WEP Wastewater Process Emissions [3]	4,817	4,525	4,394	4,394	4,394	4,394	4,394	4,394	-9	-3
Dept. of Transportation (Stationary and Electricity)	1,860	1,613	1,675	1,504	1,391	1,335	1,467	1,448	-22	-10
Parks (Stationary and Electricity)	2,668	1,793	1,627	1,523	1,315	1,382	1,506	1,325	-50	-26
Dept. of Corrections (Stationary and Electricity)	1,382	882	866	881	779	787	777	693	-50	-21

Table 3-1
Total GHG Emissions by Department (MTCDE)

Department (Source)	2008 Baseline[1]	2017 (Prev. CAP) [1]	2018	2019	2020	2021	2022	2023	Change from 2008 (%)	Change from 2017 (%)
OCPL (Stationary and Electricity)	822	530	569	514	467	466	510	484	-41	-9
Sheriff's Office (Stationary and Electricity)	1,228	534	487	450	411	401	477	429	-65	-20
E-911 (Stationary and Electricity)	366	285	278	252	240	210	277	241	-34	-15
Hillbrook (Stationary and Electricity)	396	287	222	178	166	202	256	215	-46	-25
Board of Elections (Stationary and Electricity)	No Data[2]	73	92	89	81	81	98	87	No Data[2]	19
Total[4]	**59,648**	**40,943**	**38,959**	**39,034**	**38,585**	**39,222**	**41,485**	**36,585**	**-39**	**-11**

Notes:
1. Revised 2008 baseline and 2017 emissions total.
2. Department emissions data not identified separately in 2008 Baseline or 2017 CAP report.
3. Wastewater Process emissions calculated for each WWTP based on EPA default factors, plant-specific wastewater treatment processes, and population of service area. Since this population data is not collected on an annual basis, average service populations were used to determine yearly process emissions.
4. Totals may not sum due to rounding.

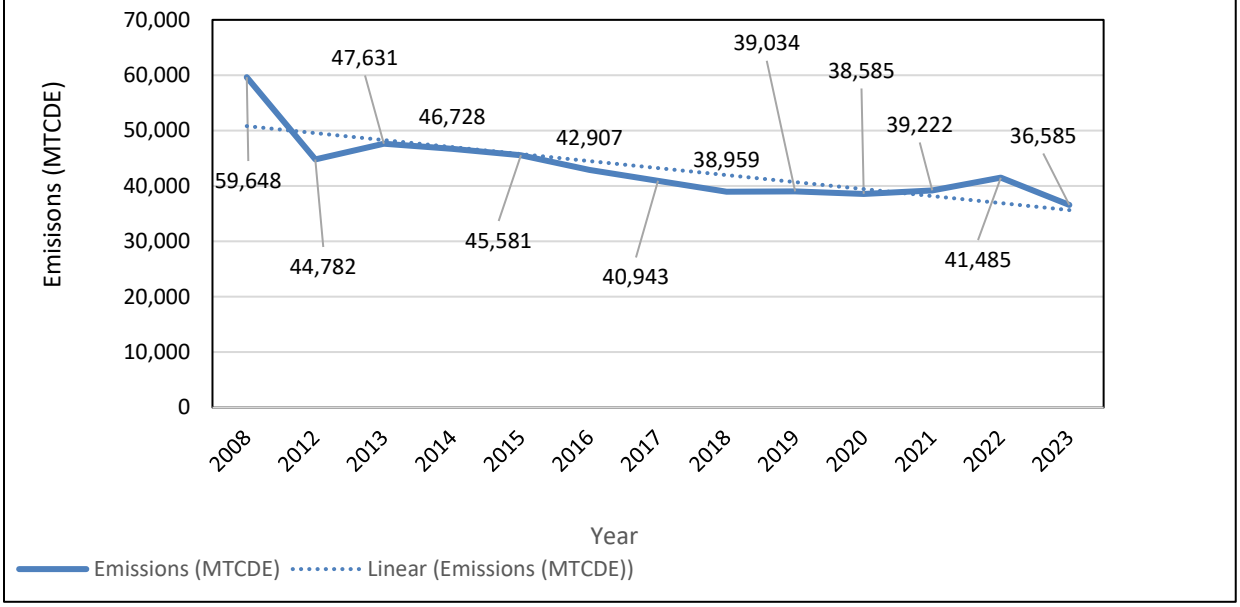
Note, emission levels did not decrease significantly in 2020, the start year of the COVID-19 pandemic. Since the County provides several essential services to the public, most operations remained unchanged during this time.

In Onondaga County, GHG emissions are from four (4) primary sources:

- Stationary source fuel combustion (Scope 1 emissions)
- Electricity consumption (Scope 2 emissions)
- Mobile combustion from transportation vehicles (Scope 1 emissions)
- Wastewater treatment processes (Scope 1 emissions)

Among these sources, natural gas and electricity use consistently accounted for the largest share of emissions. Figure 2 illustrates the overall trend of GHG emissions since 2008.

Figure 2
Onondaga County GHG Emission Trend (MTCDE)



Note:
1. 2008-2017 emission totals were adjusted from previously-reported values to account for changes in operational boundaries and electricity emission factors.

Figure 3 depicts the average total GHG emissions by Department between 2018 and 2023.

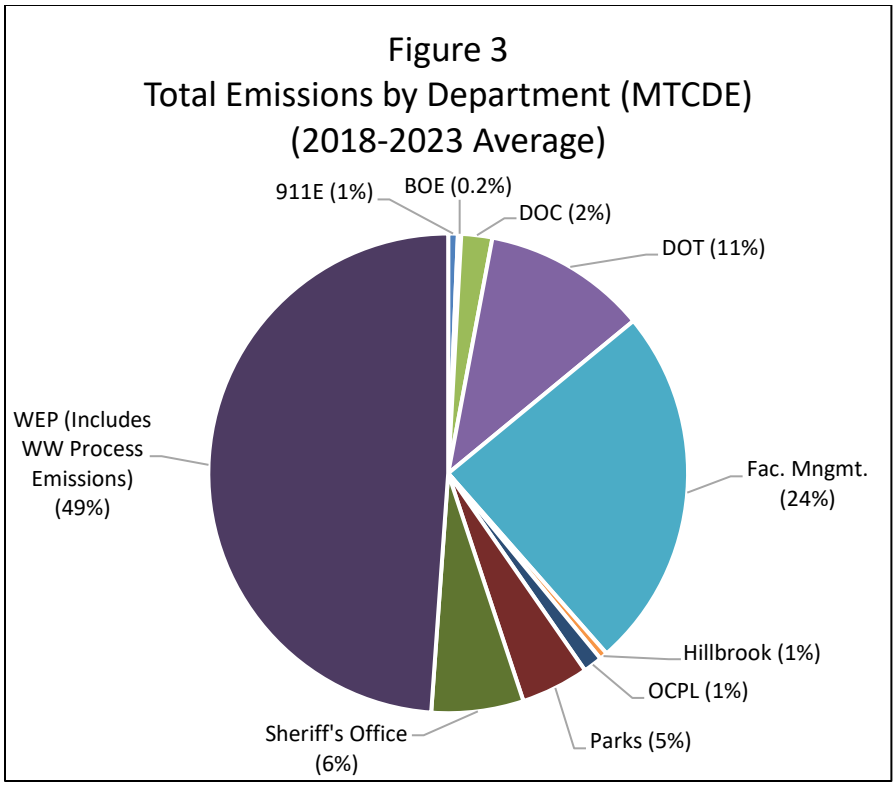
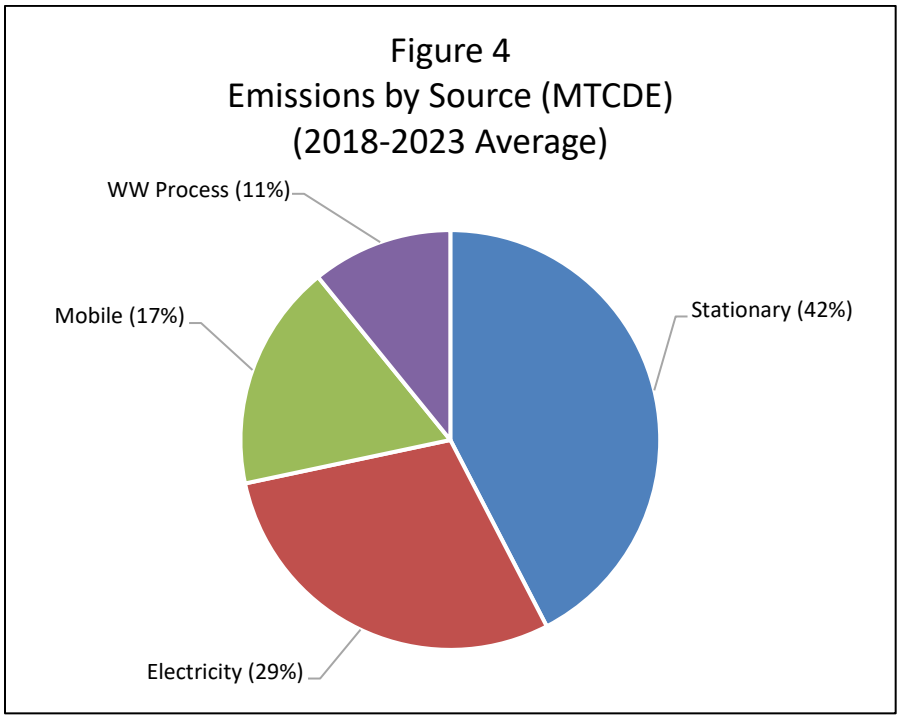


Figure 4 depicts the average total GHG emissions by source between 2018 and 2023.

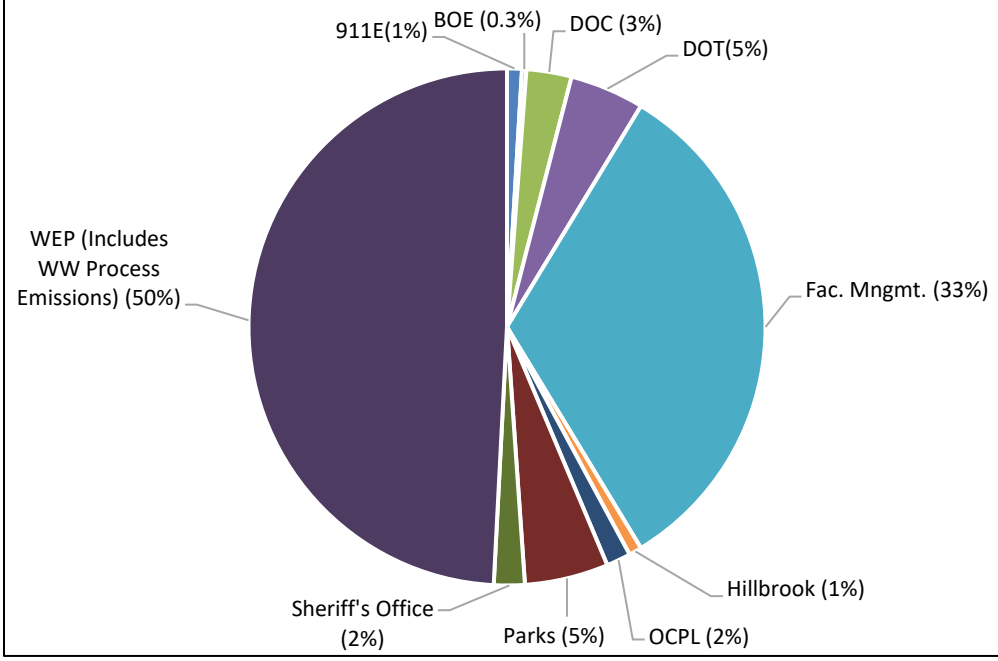


3.2 Stationary Source Emissions

The majority of the greenhouse gas emissions came from natural gas and electricity usage. Between 2018 and 2023, the County used an average of 3,380,299 therms and 106,499,706 kWh annually.

The largest generators of GHG emissions associated with electricity and natural gas usage are the Departments of Water Environment Protection and Facilities Management. Together, these two (2) Departments account for 83% of the County's stationary source emissions on average. Figure 5 illustrates the average total stationary source emissions by department.

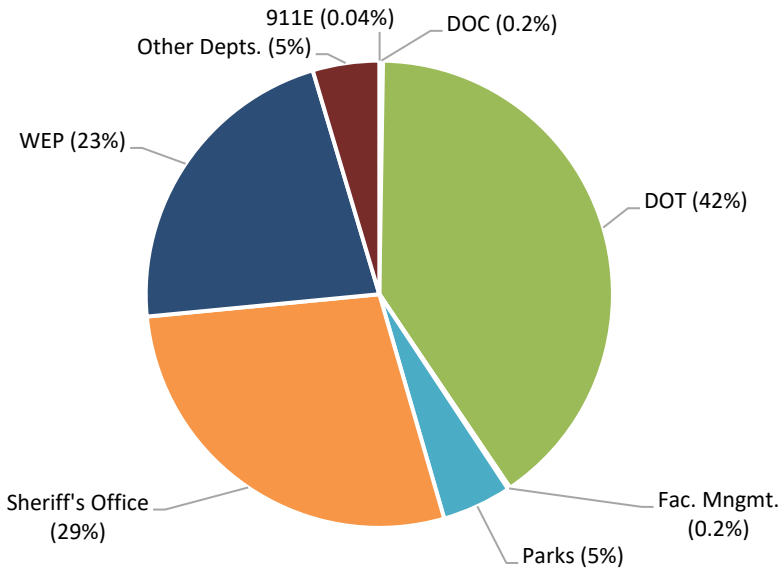
Figure 5
2018-2023 Average Stationary/Electric Emissions by Department (MTCDE)



3.3 Mobile Emissions

Over the 2018-2023 inventory period, the County's vehicle fleet consumed an average of 410,034 gallons of gasoline and 335,252 gallons of diesel fuel annually. These mobile fuel sources generated an average of 7,075 MTCDE per year. Three (3) Departments, the Department of Transportation, the Sheriff's Office, and the Department of Water Environment Protection, were responsible for approximately 94% of all vehicle emissions on average. The category labeled "Other Departments" includes vehicles from other County-operated departments that fuel at DOT fueling stations. The breakdown of emissions from mobile fuel use by Department are shown in Figure 6.

Figure 6
2018-2023 Average Mobile Source Emissions by Department (MTCDE)



Notes:
1. Wastewater process emissions are considered stationary source and therefore were not included.

3.4 Wastewater Process Emissions

Over the 2018-2023 inventory period, the County's six (6) wastewater treatment plants (WWTPs) emitted a total of 4,394 MTCDE annually in wastewater process emissions. These emissions, which encompass all GHGs emitted through the treatment of wastewater, are calculated using the EPA's Local GHG Inventory Tool: Government Operations Module (version 2023.1) ("the Tool") as described in Section 2.0. The Tool uses a variety of factors to calculate wastewater process emissions for WWTPs, such as nationwide default factors, plant-specific wastewater treatment process information, and each treatment plant's service area population. Since the population data is only collected periodically, average service populations were used to determine annual process emissions. These default values and population estimates did not drastically change from year to year, so a total of 4,394 MTCDE was calculated as the total annual emissions for each of the inventoried years.

3.5 Department Emissions Not Under Direct County Operation

Three (3) facilities, the OnCenter Convention Center and Arena ("OnCenter"), NBT Bank Stadium, and Empower Federal Credit Union Amphitheater at Lakeview ("Amphitheater") are not currently under the operational control of Onondaga County. Although these facilities fall outside the County's defined operational boundary for emissions reporting, they have been summarized in Table 3-2 for informational purposes but are excluded from the County Government emission totals by year. Tracking these facilities emissions supports future planning and may help identify future mitigation opportunities. Emissions from these facilities are presented in Table 3-2 below:

Table 3-2
Emissions from Non-County Operated Facilities (MTCDE)

Department	2008 Baseline	2017 (Prev. CAP)	2018	2019	2020	2021	2022	2023	Change from 2008 (%)	Change from 2017 (%)
OnCenter	1,694	878	1,041	701	538	581	779	708	-58	-19
NBT Bank Stadium	No Data[1]	No Data[1]	530	474	344	418	517	496	N/A	N/A
Amphitheater[2]	No Data	No Data[1]	No Data	No Data	66	87	123	100	N/A	N/A
Total	**-**	**-**	**1,571**	**1,175**	**948**	**1,086**	**1,419**	**1,304**	**N/A**	**N/A**

Notes:
1. Department emissions data not identified separately in 2008 Baseline or 2017 CAP report.
2. 2008 Baseline and 2017 emissions totals were revised.
3. The Amphitheater opened in 2015. Electricity Data for the Amphitheater was provided from 2020-2024. No data was provided for 2018-2019.
4. Although not included within the reporting years (2018-2023), the Amphitheatre emitted a total of 98.68 MTCDE from electricity usage in 2024.

It should be noted that emissions from the OnCenter were included in previous inventories but were not included in the current inventory since it is no longer directly controlled by the County. NBT Bank Stadium- and the Amphitheater-associated emissions were included in prior inventories through 2016 but not included in the 2017 CAP Report. The breakout in the table above is for the purpose of tracking emissions over the years 2018-2023 for each individual facility.

3.6 On-Site Renewable Energy Generation

Onondaga County is also contributing to decarbonization through on-site solar arrays at the Oak Orchard Wastewater Treatment Plant and Jamesville Penitentiary facilities. These systems produce clean electricity which offsets demand and is sold back to the electrical grid, increasing the supply of renewable energy regionally.

From 2018 to 2023, electricity production from these solar arrays remained relatively steady, reducing potential emissions by approximately 1,285 MTCDE over six (6) years. While these offsets are not reflected in the County's GHGI totals because the electricity is not directly consumed onsite, they still represent a meaningful investment in regional GHG mitigation.

Table 4-2 summarizes the year-by-year emission reductions from the County's solar installations.

Table 4-2
Renewable Electricity Generation per Year

Emission Source	Electricity Produced (kWh)	Emission Offsets (MTCDE)
2018	1,665,258	87
2019	4,674,992	244
2020	4,607,388	241
2021	4,604,586	241
2022	4,475,141	234
2023	4,551,856	238

Note:
1. Emission offsets from renewable electricity generation are not reflected in the GHGI as the electricity is exported to the electrical grid and not consumed directly by County operations.

4.0 ANALYSIS AND RECOMMENDATIONS

4.1 Comparison to 2017 Emissions Inventory & 2008 Baseline

This 2018-2023 GHGI serves as an update to and builds upon the Onondaga County's GHGI in the 2017 CAP Update. By comparing the data trends throughout these inventoried years, the County can track progress towards emission reduction goals.

4.1.1 Comparison to 2017 Emissions

Total energy use across key sources decreased between 2017 and 2023. During this period, the County experienced the following changes in energy consumption:

- 16% decrease in gasoline usage
- 28% decrease in diesel fuel usage
- 5% decrease in electricity usage
- 6% increase in natural gas usage

These shifts in energy usage contributed to an overall reduction in greenhouse gas emissions associated with mobile sources, stationary sources (building heating), and electricity emissions since the 2017 inventory. Additionally, emission reductions are attributed to:

- Changes in the emission factors used by Local Government Operations Protocol (LGOP) inventories to reflect a greener electricity grid through the eGRID electricity emission factor and fuel combustion factors from sources referenced within the Tool. Emission factor changes can make a significant difference in calculated values when comparing similar fuel usage data.
- Milder winter and reduced snow removal needs
- Increased fuel efficiency standards imposed by the federal government

The regional electricity grid coefficient, which is used to calculate indirect emissions from electricity consumption, decreased from 273.89 lbs. CO2/MWh (2017) to 241.00 lbs. CO_2/MWh (2023) as the regional network of electricity providers drew power from a greater percentage of renewable energy sources, such as solar, wind, nuclear, and hydro.[20]

This reduction underscores how improvements in the emissions intensity of electricity generation can significantly lower GHG emissions, even without substantial changes in energy demand.

[20] National Grid, "Energy Supplier List," 2023. https://www.nationalgridus.com/Upstate-NY-Home/Energy-Choice/Energy-Supplier-List.

4.1.2 Comparison to 2008 Baseline

This updated baseline analysis indicates a 39% reduction in emissions between 2008 and 2023. This comparison includes revised emission factors and boundary adjustments, and it represents the best available dataset for tracking long-term progress across the full 15-year period.

The County's 2008 Baseline Climate Action Plan established a goal of reducing emissions by 1% per year over 25 years, equivalent to a 25% reduction from 2008 levels by the year 2033. Evaluating progress relative to this trajectory:

- After 15 years, the County's emissions have decreased by 39%, which surpasses the proportional reduction expected under the 1% per year goal
- If this reduction trajectory continues, the County is on track to continue to exceed the 2033 target of a 25% reduction relative to 2008

This sustained pace of improvement reflects the County's long-term commitment to emissions reduction, even as operational boundaries and facility portfolios have shifted. Continued investment in energy efficiency, electrification, and wastewater process optimization will be necessary to maintain momentum and align with both the County's Climate Action Plan and New York State's CLCPA goals.

4.2 Weather Averages and Associated Emission Levels

Since a large portion of County emissions are from stationary sources used in heating and cooling, the impact of yearly weather conditions on emissions has been considered. Weather conditions impacting heating and cooling are represented as the number of heating degree days (HDD) and cooling degree days (CDD). Higher HDD and CDD values correspond to a larger number of hot or cold days per year, which can be used to gauge whether GHG emission reductions are due to proper mitigation techniques and increased efficiency, or due to a mild weather year.

In addition to temperature metrics, total annual precipitation (inches of snow and rainfall) have also been included as more energy is needed to run snow plows and water pumps during years with greater snow and rainfall, respectively.

Table 4-3 presents historic HDD, CDD, and precipitation in inches, and compares these values to the 2008 Baseline and most recent CAP updates.

Table 4-3
Historic Weather Data Comparison

Weather	2008 Baseline	2017 (Prev. CAP)	2018	2019	2020	2021	2022	2023	Change from 2008 (%)	Change from 2017 (%)
HDD[1]	6,587	6,333	6,789	6,601	5,964	5,639	6,240	5,549	-15.7	-12.4
CDD[1]	541	550	798	612	974	958	790	744	31.6	30.0
HDD+CDD	7,128	6,883	7,587	7,213	6,938	6,597	7,030	6,293	-12.4	-9.0
WTR (in)[2]	41.77	42.18	42.10	46.37	37.02	47.84	37.08	44.55	6.4	5.5
SNW (in)[2]	126.50	80.80	153.6	115.0	87.6	73.3	76.0	65.6	-63.33	-20.7

Notes:
1. HDD and CDD values from NYSERDA Monthly Heating and Cooling days for Syracuse, NY. https://www.nyserda.ny.gov/About/Publications/Energy-Analysis-Reports-and-Studies/Weather-Data/Monthly-Cooling-and-Heating-Degree-Day-Data#Syracuse
2. Water and Snowfall (in.) from NOAA Online Weather Data for the Syracuse Area. https://www.weather.gov/wrh/climate

2023 saw about 9.0% fewer combined HDD and CDD days, 5.5% more rainfall, and 20.7% less snowfall compared to 2017. These conditions suggest that part of the reduction in energy use and emissions observed in 2023 may be attributable to a milder winter and reduced snow removal needs, rather than operational changes alone.

Table 4-4 below includes a breakdown of historic emissions, normalized using the total number of HDDs and CDDs within each given year. This calculation normalizes emissions for changes in weather and seeks to show if the County is truly achieving emission reductions due to policy and mitigation actions, or if it is contributed to weather fluctuations.

Table 4-4
Historic Emissions per HDD+CDD

Weather	2008 Baseline	2017 (Prev. CAP)	2018	2019	2020	2021	2022	2023
Total HDD+CDD	7,128	6,883	7,587	7,213	6,938	6,597	7,030	6,293
Total Emissions (MTCDE)	59,648	40,943	38,959	39,034	38,585	39,222	41,485	36,585
MTCDE/(HDD+CDD)	8.37	5.95	5.13	5.41	5.56	5.95	5.90	5.81

These normalized values show that emissions have remained steady or have slightly decreased most years. **This suggests that the County's emissions reductions are not solely the result of favorable weather patterns but also reflect genuine improvements in energy efficiency and operational practices.**

4.3 GHGI Recommendations Moving Forward

In order to continue to accurately track changes in GHG emissions due to climate policy, the following actions are recommended for the County moving forward.

- Establish a single point of contact for all Departments to send emissions data: In order to continue active participation in the CSC program, the County will have to continue to track their emissions and complete GHGIs in future years. Establishing this single contact would allow for all County GHG emissions data sets to be stored in a single place.
- Collaborate with the Fiscal Operations Liaison assigned to energy bill payments as well as appropriate individuals who oversee purchasing of fleet vehicles and fuel facilities: This way the County would be able to easily track GHG emissions and have all necessary information easily accessible for future emissions inventories in one place. The County can also use this information in-between inventories to track progress on the goals set forth in their Climate Action Plan and Climate Resiliency Plan. Gathering and maintaining data will allow the County to measure if the plans they set forward are being achieved.
- Consistently track emissions from the same sources every year.

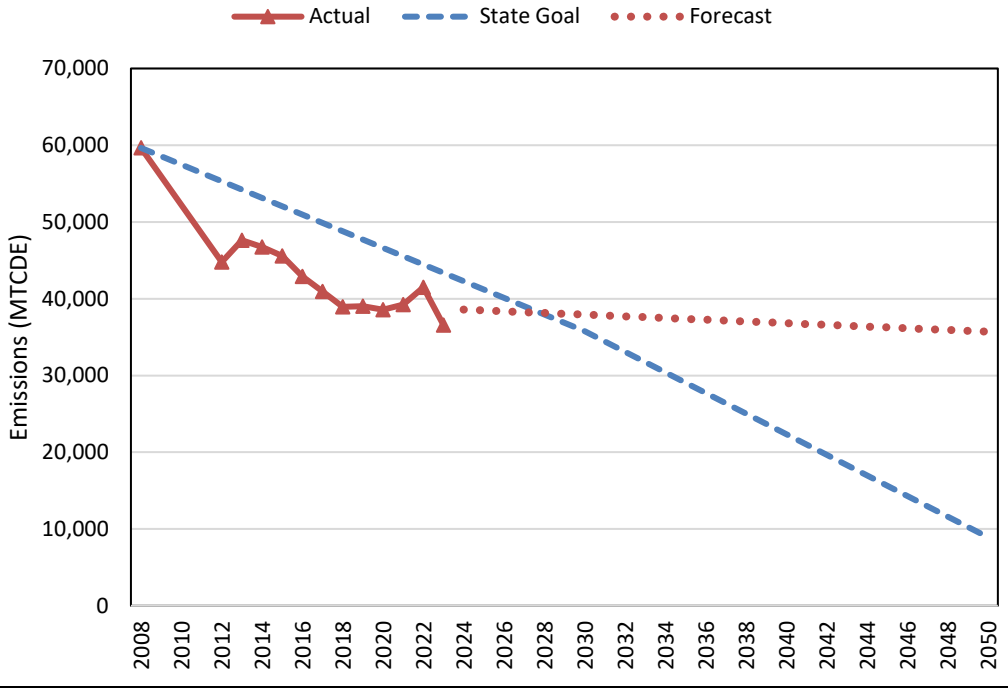
While County emissions are lower in 2023 than they were in 2017, it is still important to make County operations more energy efficient to align with County, State, and regional goals. Energy efficiency, while reducing emissions, also has the potential to result in cost savings. Furthermore, it is extremely important for the County to promote more energy-conscious practices and sustainable projects within the government. A full list of recommendations to continue successfully reducing GHG emissions within the County are included in detail within the Updated Onondaga County CAP Report.

4.4 Emissions Reduction Goal

As detailed throughout this emissions inventory, County generated GHG emissions primarily originate from three (3) sources: fossil fuel combustion in stationary sources for heating buildings and facilities, mobile sources from vehicles, and process emissions from the County's Water Environment Protection's wastewater treatment plants.

In order to continue reducing emissions with the intent of aligning with the State's CLCPA goals, it will be important to support the electric grid's transition to renewable energy and move to electrify the County's heating, cooling, and fleet. Figure 7 illustrates the County's current GHG emissions trajectory in comparison to the statewide emission reduction targets.

Figure 7
County-Wide Actual Emissions vs. State Emission Goals

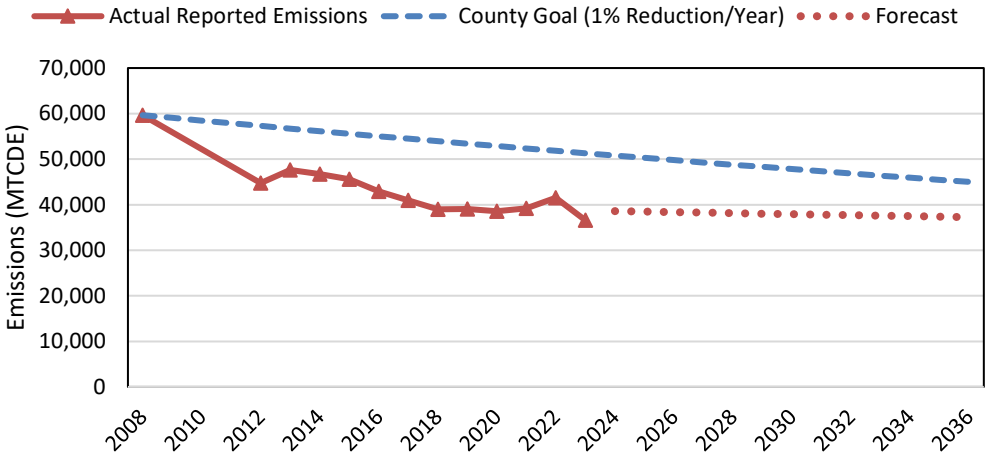


Notes:

1. State emission goals are based on the State's CLCPA baseline year of 1990. For County emissions, a baseline year of 2008 was used, since the first GHGI taken was in the year 2008.
2. Statewide emission reduction goals based on a 40% emission reduction by 2030 and 85% emission reduction by 2050 using this 2008 Baseline.
3. No adjustments to reported values were made based on changes to GWP or emission factors for the years 2008-2017.
4. Forecasted emissions are projected from actual emissions reported from 2018-2023 to reflect the most recent trends in County emissions.

Additionally, the County set forth a goal in their 2008 Baseline GHGI to reduce emissions by 1% per year starting in 2012 over the next 25 years. Figure 8 shows the comparison between these goals and the progress the County continues to make with emission reductions. As shown in this figure, the County's 2023 emissions reduction totals meet their 1% per year reduction goals.

Figure 8
County-Wide Actual Emissions vs. County Emission Goals



1. No adjustments to reported values were made based on changes to GWP or emission factors for the years 2008-2017.
2. Forecasted emissions are projected from actual emissions reported from 2018-2023 to reflect the most recent trends in County Emissions.

Overall, the 2018–2023 inventory demonstrates:

- Short-term reductions since 2017
- Steady long-term progress toward achieving the County's emissions-reduction goal
- A trajectory consistent with achieving a 25% reduction

The County can continue a positive reduction trend through proper policymaking and by continuing their commitment to reducing greenhouse gas emissions over time.

5.0 REFERENCES

Onondaga County and C&S Companies, "Climate Action Plan," April 2012.

Onondaga County, "Climate Action Plan, Annual Update for 2013," June 2014.

Onondaga County, "Climate Action Plan, Annual Update for 2014-15," June 2016.

Onondaga County, "2016 CAP Summary Report Update," 2016.

Onondaga County, "Climate Action Plan Annual Update Report," 2017.

Climate Action Associates LLC, "Climate Smart Communities: New York Community and Regional GHG Inventory Guidance," version 1.0, Sept 2015.

Intergovernmental Panel on Climate Change. "Fifth Assessment Report." IPCC, November 2014.

Intergovernmental Panel on Climate Change. "Fifth Assessment Report." IPCC, 2007.

Intergovernmental Panel on Climate Change. "Third Assessment Report." IPCC, 2001.

National Grid, "Energy Supplier List," 2023. https://www.nationalgridus.com/Upstate-NY-Home/Energy-Choice/Energy-Supplier-List.

New York State Department of Environmental Conservation, "2023 Statewide GHG Emissions Report," https://dec.ny.gov/sites/default/files/2023-12/summaryreportnysghgemissionsreport2023.pdf.

United States Environmental Protection Agency. "*The Climate Registry 2023 Default Emission Factors and Emission Factors for Greenhouse Gas Inventories*." U.S. EPA, September 2023.

United States Environmental Protection Agency. "*eGRID 2018 NYSUP Sub region*." U.S. EPA, Revised March 2020.

United States Environmental Protection Agency. "*eGRID 2019 NYSUP Sub region*." U.S. EPA, Revised February 2021.

United States Environmental Protection Agency. "*eGRID 2020 NYSUP Sub region*." U.S. EPA, Revised January 2022.

United States Environmental Protection Agency. "*eGRID 2021 NYSUP Sub region*." U.S. EPA, Revised January 2023.

United States Environmental Protection Agency. "*eGRID 2022 NYSUP Sub region*." U.S. EPA, Revised January 2024.

United States Environmental Protection Agency. "*eGRID 2023 NYSUP Sub region*." U.S. EPA, Revised January 2025.

United States Environmental Protection Agency, ”Overview of Greenhouse Gases,” February 2024 https://www.epa.gov/ghgemissions/overview-greenhouse-gases.

Appendices

Appendix A
Emissions Inputs and Data Summary

Sum of Value	Column Labels		
	Electricity		Electricity Total
Row Labels	Electricity Use (kWh) Electricity	Electricity Use (kWh) Total	
County Executive	167,614,724.92	167,614,724.92	167,614,724.92
Board of Elections	13,704.00	13,704.00	13,704.00
Department of Transportation	7,570,807.00	7,570,807.00	7,570,807.00
Facilities Management	120,927,988.00	120,927,988.00	120,927,988.00
Hillbrook	3,941,840.00	3,941,840.00	3,941,840.00
Onondaga County Public Libraries	11,945,440.00	11,945,440.00	11,945,440.00
Parks and Recreation	23,214,945.92	23,214,945.92	23,214,945.92
Other	45,103,919.00	45,103,919.00	45,103,919.00
NBT Stadium	8,222,928.00	8,222,928.00	8,222,928.00
OnCenter	36,880,991.00	36,880,991.00	36,880,991.00
Sheriff's Office	36,268,186.53	36,268,186.53	36,268,186.53
911E	8,863,646.53	8,863,646.53	8,863,646.53
Board of Elections	875,040.00	875,040.00	875,040.00
Department of Corrections	9,046,317.00	9,046,317.00	9,046,317.00
Sheriff's Office	17,483,183.00	17,483,183.00	17,483,183.00
Water Environment Protection	389,669,726.82	389,669,726.82	389,669,726.82
Water Environment Protection	389,669,726.82	389,669,726.82	389,669,726.82
Grand Total	638,656,557.27	638,656,557.27	638,656,557.27

Sum of Value	Mobile Sources		
	Fuel Use		Fuel Use Total
Row Labels	Diesel Fuel (Gallons)	Gasoline (Gallons)	
County Executive	1,456,095.01	471,153.35	1,927,248.36
Board of Elections			
Department of Transportation	1,390,887.91	307,340.05	1,698,227.96
Facilities Management	0.00	7,955.20	7,955.20
Hillbrook	191.10	0.00	191.10
Onondaga County Public Libraries			
Parks and Recreation	65,016.00	155,858.10	220,874.10
Other			
NBT Stadium			
OnCenter			
Sheriff's Office	5,983.68	1,355,135.20	1,361,118.88
911E	0.00	1,845.77	1,845.77
Board of Elections			
Department of Corrections	615.29	9,621.88	10,237.17
Sheriff's Office	5,368.39	1,343,667.55	1,349,035.94
Water Environment Protection	360,697.83	633,914.58	994,612.41
Water Environment Protection	360,697.83	633,914.58	994,612.41
Grand Total	1,822,776.52	2,460,203.13	4,282,979.65

Sum of Value Row Labels	Mobile Sources Total	Stationary Sources Fuel Use Distillate Fuel Oils, No. 2 - Fuel	Natural Gas (therms)
County Executive	1,927,248.36	24,866.70	11,096,742.90
Board of Elections			
Department of Transportation	1,698,227.96		1,342,939.90
Facilities Management	7,955.20		8,325,044.00
Hillbrook	191.10		152,234.00
Onondaga County Public Libraries			319,644.00
Parks and Recreation	220,874.10	24,866.70	956,881.00
Other			395,333.00
NBT Stadium			353,588.00
OnCenter			41,745.00
Sheriff's Office	1,361,118.88		1,032,826.00
911E	1,845.77		96,743.00
Board of Elections			81,689.00
Department of Corrections	10,237.17		719,454.00
Sheriff's Office	1,349,035.94		134,940.00
Water Environment Protection	994,612.41		6,699,947.00
Water Environment Protection	994,612.41		6,699,947.00
Grand Total	4,282,979.65	24,866.70	19,224,848.90

Sum of Value			
Row Labels	Propane (Gallons)	Fuel Use Total	Stationary Sources Total
County Executive	141,422.38	11,263,031.98	11,263,031.98
Board of Elections			
Department of Transportation		1,342,939.90	1,342,939.90
Facilities Management		8,325,044.00	8,325,044.00
Hillbrook		152,234.00	152,234.00
Onondaga County Public Libraries		319,644.00	319,644.00
Parks and Recreation	141,422.38	1,123,170.08	1,123,170.08
Other		395,333.00	395,333.00
NBT Stadium		353,588.00	353,588.00
OnCenter		41,745.00	41,745.00
Sheriff's Office	538.10	1,033,364.10	1,033,364.10
911E	538.10	97,281.10	97,281.10
Board of Elections		81,689.00	81,689.00
Department of Corrections		719,454.00	719,454.00
Sheriff's Office		134,940.00	134,940.00
Water Environment Protection	14,241.70	6,714,188.70	6,714,188.70
Water Environment Protection	14,241.70	6,714,188.70	6,714,188.70
Grand Total	156,202.18	19,405,917.78	19,405,917.78

Appendix B
GHG Emission Results

Total MTCDE

By Department	2018	2019	2020	2021	2022	2023
Onondaga County Owned and Operated Departments						
911E	282.53	256.68	241.92	212.27	278.47	242.61
Board of Elections	91.56	89.44	81.34	81.50	98.05	86.51
Department of Corrections	871.29	894.04	793.95	804.92	797.73	711.80
Department of Transportation	4,557.72	4,078.34	3,966.04	3,911.75	4,531.22	3,951.91
Facilities Management	9,921.86	9,939.05	9,132.76	9,221.08	9,991.44	9,047.88
Hillbrook	222.42	180.29	166.29	201.56	255.82	215.12
Onondaga County Public Libraries	568.57	514.11	466.84	465.83	509.80	484.08
Parks and Recreation	1,951.06	1,870.84	1,621.11	1,795.43	1,819.98	1,661.20
Sheriff's Office	2,473.20	2,419.84	2,450.35	2,310.42	2,413.49	2,452.44
Water Environment Protection	13,372.25	14,164.93	15,039.26	15,613.27	16,394.64	13,337.47
Water Environment Protection: Wastewater Process Emissions	3,223.27	3,223.27	3,223.27	3,223.27	3,223.27	3,223.27
Subtotal	*37,535.74*	*37,630.83*	*37,183.13*	*37,841.30*	*40,313.91*	*35,414.29*
Externally Owned and Operated Facilities						
Credit Union Amphitheater	No Data	No Data	65.92	86.79	122.37	99.76
NBT Stadium	529.71	473.71	344.00	417.17	516.20	495.66
OnCenter	1,040.50	700.11	537.15	580.80	778.45	707.19
Subtotal	*1,570.20*	*1,173.82*	*881.15*	*997.96*	*1,294.70*	*1,202.92*
Total	**39,105.95**	**38,804.65**	**39,531.95**	**40,307.18**	**42,901.84**	**37,887.81**

Facility Info		Emissions Categories		Year	Scaled Values				Misc		Emission Factor				Emissions									
Upper Department	**Direct Department**	**Emissions Category**	**Fuel Type**	**Year**	**Value in Original Unit**	**Original Unit**	**Emission Factor Unit**	**Conversion Factor (Original Unit to Emission Factor Unit)**	**Converted Value for Emission Factor Unit**	**Emission Factor Year**	**CO2**	**CH4**	**N2O**	**Unit**	**CO2 (lbs)**	**CH4 (lbs)**	**N2O (lbs)**	**CO2 (kg)**	**CH4 (kg)**	**N2O (kg)**	**CO2 (metric tons)**	**CH4 (metric tons)**	**N2O (metric tons)**	**GWP Basis**	**Total GHG (MTCDE)**
Sheriff's Office	Department of Corrections	Electricity	Electricity	2018	1,420,933	kWh	MWh	0.001	1,421	2018	114.8097	0.008165	0.0009072	kg/MWh	359,655.19	25.58	2.84	163,136.85	11.60	1.29	163.14	0.01	0.00	100-Year	163.80
Sheriff's Office	Sheriff's Office	Electricity	Electricity	2018	3,135,435	kWh	MWh	0.001	3,135	2018	114.8097	0.008165	0.0009072	kg/MWh	793,616.22	56.44	6.27	359,978.26	25.60	2.84	359.98	0.03	0.00	100-Year	361.45
County Executive	Board of Elections	Electricity	Electricity	2018	135,480	kWh	MWh	0.001	135	2018	114.8097	0.008165	0.0009072	kg/MWh	34,291.61	2.44	0.27	15,554.41	1.11	0.12	15.55	0.00	0.00	100-Year	15.62
County Executive	911E	Electricity	Electricity	2018	1,530,951	kWh	MWh	0.001	1,531	2018	114.8097	0.008165	0.0009072	kg/MWh	387,502.07	27.56	3.06	175,767.98	12.50	1.39	175.77	0.01	0.00	100-Year	176.49
County Executive	Department of Transportation	Electricity	Electricity	2018	1,319,010	kWh	MWh	0.001	1,319	2018	114.8097	0.008165	0.0009072	kg/MWh	333,857.26	23.74	2.64	151,435.11	10.77	1.20	151.44	0.01	0.00	100-Year	152.05
County Executive	Facilities Management	Electricity	Electricity	2018	20,663,980	kWh	MWh	0.001	20,664	2018	114.8097	0.008165	0.0009072	kg/MWh	5,230,301.31	371.95	41.33	2,372,424.77	168.71	18.75	2,372.42	0.17	0.02	100-Year	2,382.12
County Executive	Hillbrook	Electricity	Electricity	2018	716,960	kWh	MWh	0.001	717	2018	114.8097	0.008165	0.0009072	kg/MWh	181,471.18	12.91	1.43	82,313.94	5.85	0.65	82.31	0.01	0.00	100-Year	82.65
County Executive	Onondaga County Public Libraries	Electricity	Electricity	2018	2,144,661	kWh	MWh	0.001	2,145	2018	114.8097	0.008165	0.0009072	kg/MWh	542,839.44	38.60	4.29	246,227.83	17.51	1.95	246.23	0.02	0.00	100-Year	247.23
County Executive	Parks and Recreation	Electricity	Electricity	2018	4,103,118	kWh	MWh	0.001	4,103	2018	114.8097	0.008165	0.0009072	kg/MWh	1,038,548.40	73.86	8.21	471,077.63	33.50	3.72	471.08	0.03	0.00	100-Year	473.00
Water Environment Protection	Water Environment Protection	Electricity	Electricity	2018	67,240,940	kWh	MWh	0.001	67,241	2018	114.8097	0.008165	0.0009072	kg/MWh	17,019,488.80	1,210.34	134.48	7,719,910.26	549.00	61.00	7,719.91	0.55	0.06	100-Year	7,751.45
Other	Credit Union Amphitheater	Electricity	Electricity	2018	0	kWh	MWh	0.001	0	2018	114.8097	0.008165	0.0009072	kg/MWh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
Other	NBT Stadium	Electricity	Electricity	2018	1,428,017	kWh	MWh	0.001	1,428	2018	114.8097	0.008165	0.0009072	kg/MWh	361,448.24	25.70	2.86	163,950.16	11.66	1.30	163.95	0.01	0.00	100-Year	164.62
Other	OnCenter	Electricity	Electricity	2018	8,670,460	kWh	MWh	0.001	8,670	2018	114.8097	0.008165	0.0009072	kg/MWh	2,194,597.47	156.07	17.34	995,452.67	70.79	7.87	995.45	0.07	0.01	100-Year	999.52
Sheriff's Office	Department of Corrections	Electricity	Electricity	2019	1,644,017	kWh	MWh	0.001	1,644	2019	105.3718	0.007711	0.0009072	kg/MWh	381,913.37	27.95	3.29	173,232.99	12.68	1.49	173.23	0.01	0.00	100-Year	173.98
Sheriff's Office	Sheriff's Office	Electricity	Electricity	2019	3,147,278	kWh	MWh	0.001	3,147	2019	105.3718	0.007711	0.0009072	kg/MWh	731,128.42	53.50	6.29	331,634.27	24.27	2.86	331.63	0.02	0.00	100-Year	333.07
County Executive	Board of Elections	Electricity	Electricity	2019	125,800	kWh	MWh	0.001	126	2019	105.3718	0.007711	0.0009072	kg/MWh	29,223.97	2.14	0.25	13,255.77	0.97	0.11	13.26	0.00	0.00	100-Year	13.31
County Executive	911E	Electricity	Electricity	2019	1,505,863	kWh	MWh	0.001	1,506	2019	105.3718	0.007711	0.0009072	kg/MWh	349,819.50	25.60	3.01	158,675.46	11.61	1.37	158.68	0.01	0.00	100-Year	159.36
County Executive	Department of Transportation	Electricity	Electricity	2019	1,207,705	kWh	MWh	0.001	1,208	2019	105.3718	0.007711	0.0009072	kg/MWh	280,555.91	20.53	2.42	127,258.02	9.31	1.10	127.26	0.01	0.00	100-Year	127.81
County Executive	Facilities Management	Electricity	Electricity	2019	20,132,913	kWh	MWh	0.001	20,133	2019	105.3718	0.007711	0.0009072	kg/MWh	4,676,976.35	342.26	40.27	2,121,440.79	155.25	18.26	2,121.44	0.16	0.02	100-Year	2,130.63
County Executive	Hillbrook	Electricity	Electricity	2019	706,400	kWh	MWh	0.001	706	2019	105.3718	0.007711	0.0009072	kg/MWh	164,100.25	12.01	1.41	74,434.62	5.45	0.64	74.43	0.01	0.00	100-Year	74.76
County Executive	Onondaga County Public Libraries	Electricity	Electricity	2019	2,013,710	kWh	MWh	0.001	2,014	2019	105.3718	0.007711	0.0009072	kg/MWh	467,794.90	34.23	4.03	212,188.20	15.53	1.83	212.19	0.02	0.00	100-Year	213.11
County Executive	Parks and Recreation	Electricity	Electricity	2019	3,982,231	kWh	MWh	0.001	3,982	2019	105.3718	0.007711	0.0009072	kg/MWh	925,092.17	67.70	7.96	419,614.75	30.71	3.61	419.61	0.03	0.00	100-Year	421.43
Water Environment Protection	Water Environment Protection	Electricity	Electricity	2019	64,890,994	kWh	MWh	0.001	64,891	2019	105.3718	0.007711	0.0009072	kg/MWh	15,074,502.36	1,103.15	129.78	6,837,679.25	500.38	58.87	6,837.68	0.50	0.06	100-Year	6,867.29
Other	Credit Union Amphitheater	Electricity	Electricity	2019	0	kWh	MWh	0.001	0	2019	105.3718	0.007711	0.0009072	kg/MWh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
Other	NBT Stadium	Electricity	Electricity	2019	1,380,980	kWh	MWh	0.001	1,381	2019	105.3718	0.007711	0.0009072	kg/MWh	320,808.56	23.48	2.76	145,516.31	10.65	1.25	145.52	0.01	0.00	100-Year	146.15
Other	OnCenter	Electricity	Electricity	2019	6,333,027	kWh	MWh	0.001	6,333	2019	105.3718	0.007711	0.0009072	kg/MWh	1,471,193.84	107.66	12.67	667,322.30	48.83	5.75	667.32	0.05	0.01	100-Year	670.21
Sheriff's Office	Department of Corrections	Electricity	Electricity	2020	1,585,035	kWh	MWh	0.001	1,585	2020	105.9193	0.007257	0.0009072	kg/MWh	370,124.69	25.36	3.17	167,885.74	11.50	1.44	167.89	0.01	0.00	100-Year	168.59
Sheriff's Office	Sheriff's Office	Electricity	Electricity	2020	2,884,412	kWh	MWh	0.001	2,884	2020	105.9193	0.007257	0.0009072	kg/MWh	673,544.81	46.15	5.77	305,514.79	20.93	2.62	305.51	0.02	0.00	100-Year	306.79
County Executive	Board of Elections	Electricity	Electricity	2020	148,800	kWh	MWh	0.001	149	2020	105.9193	0.007257	0.0009072	kg/MWh	34,746.59	2.38	0.30	15,760.79	1.08	0.13	15.76	0.00	0.00	100-Year	15.83
County Executive	911E	Electricity	Electricity	2020	1,511,320	kWh	MWh	0.001	1,511	2020	105.9193	0.007257	0.0009072	kg/MWh	352,911.36	24.18	3.02	160,077.90	10.97	1.37	160.08	0.01	0.00	100-Year	160.75
County Executive	Department of Transportation	Electricity	Electricity	2020	1,210,280	kWh	MWh	0.001	1,210	2020	105.9193	0.007257	0.0009072	kg/MWh	282,614.90	19.36	2.42	128,191.96	8.78	1.10	128.19	0.01	0.00	100-Year	128.73
County Executive	Facilities Management	Electricity	Electricity	2020	19,662,998	kWh	MWh	0.001	19,663	2020	105.9193	0.007257	0.0009072	kg/MWh	4,591,545.99	314.61	39.33	2,082,690.23	142.70	17.84	2,082.69	0.14	0.02	100-Year	2,091.41
County Executive	Hillbrook	Electricity	Electricity	2020	575,680	kWh	MWh	0.001	576	2020	105.9193	0.007257	0.0009072	kg/MWh	134,428.19	9.21	1.15	60,975.60	4.18	0.52	60.98	0.00	0.00	100-Year	61.23
County Executive	Onondaga County Public Libraries	Electricity	Electricity	2020	1,911,616	kWh	MWh	0.001	1,912	2020	105.9193	0.007257	0.0009072	kg/MWh	446,385.28	30.59	3.82	202,476.95	13.87	1.73	202.48	0.01	0.00	100-Year	203.32
County Executive	Parks and Recreation	Electricity	Electricity	2020	3,722,815	kWh	MWh	0.001	3,723	2020	105.9193	0.007257	0.0009072	kg/MWh	869,321.98	59.57	7.45	394,317.82	27.02	3.38	394.32	0.03	0.00	100-Year	395.97
Water Environment Protection	Water Environment Protection	Electricity	Electricity	2020	65,993,513	kWh	MWh	0.001	65,994	2020	105.9193	0.007257	0.0009072	kg/MWh	15,410,277.21	1,055.90	131.99	6,989,984.16	478.95	59.87	6,989.98	0.48	0.06	100-Year	7,019.26
Other	Credit Union Amphitheater	Electricity	Electricity	2020	619,789	kWh	MWh	0.001	620	2020	105.9193	0.007257	0.0009072	kg/MWh	144,728.17	9.92	1.24	65,647.59	4.50	0.56	65.65	0.00	0.00	100-Year	65.92
Other	NBT Stadium	Electricity	Electricity	2020	880,987	kWh	MWh	0.001	881	2020	105.9193	0.007257	0.0009072	kg/MWh	205,721.04	14.10	1.76	93,313.49	6.39	0.80	93.31	0.01	0.00	100-Year	93.70
Other	OnCenter	Electricity	Electricity	2020	4,864,284	kWh	MWh	0.001	4,864	2020	105.9193	0.007257	0.0009072	kg/MWh	1,135,868.69	77.83	9.73	515,221.37	35.30	4.41	515.22	0.04	0.00	100-Year	517.38
Sheriff's Office	Department of Corrections	Electricity	Electricity	2021	1,585,035	kWh	MWh	0.001	1,585	2021	105.7238	0.006804	0.0009072	kg/MWh	369,441.54	23.78	3.17	167,575.86	10.78	1.44	167.58	0.01	0.00	100-Year	168.26
Sheriff's Office	Sheriff's Office	Electricity	Electricity	2021	2,771,156	kWh	MWh	0.001	2,771	2021	105.7238	0.006804	0.0009072	kg/MWh	645,903.81	41.57	5.54	292,977.04	18.85	2.51	292.98	0.02	0.00	100-Year	294.17
County Executive	Board of Elections	Electricity	Electricity	2021	153,720	kWh	MWh	0.001	154	2021	105.7238	0.006804	0.0009072	kg/MWh	35,829.21	2.31	0.31	16,251.86	1.05	0.14	16.25	0.00	0.00	100-Year	16.32
County Executive	911E	Electricity	Electricity	2021	1,391,174	kWh	MWh	0.001	1,391	2021	105.7238	0.006804	0.0009072	kg/MWh	324,256.23	20.87	2.78	147,080.15	9.47	1.26	147.08	0.01	0.00	100-Year	147.68
County Executive	Department of Transportation	Electricity	Electricity	2021	1,210,280	kWh	MWh	0.001	1,210	2021	105.7238	0.006804	0.0009072	kg/MWh	282,093.27	18.15	2.42	127,955.36	8.23	1.10	127.96	0.01	0.00	100-Year	128.48
County Executive	Facilities Management	Electricity	Electricity	2021	20,205,289	kWh	MWh	0.001	20,205	2021	105.7238	0.006804	0.0009072	kg/MWh	4,709,468.97	303.08	40.41	2,136,179.19	137.47	18.33	2,136.18	0.14	0.02	100-Year	2,144.89
County Executive	Hillbrook	Electricity	Electricity	2021	611,200	kWh	MWh	0.001	611	2021	105.7238	0.006804	0.0009072	kg/MWh	142,459.11	9.17	1.22	64,618.36	4.16	0.55	64.62	0.00	0.00	100-Year	64.88
County Executive	Onondaga County Public Libraries	Electricity	Electricity	2021	1,945,796	kWh	MWh	0.001	1,946	2021	105.7238	0.006804	0.0009072	kg/MWh	453,528.08	29.19	3.89	205,716.88	13.24	1.77	205.72	0.01	0.00	100-Year	206.56
County Executive	Parks and Recreation	Electricity	Electricity	2021	3,864,540	kWh	MWh	0.001	3,865	2021	105.7238	0.006804	0.0009072	kg/MWh	900,750.85	57.97	7.73	408,573.71	26.29	3.51	408.57	0.03	0.00	100-Year	410.24
Water Environment Protection	Water Environment Protection	Electricity	Electricity	2021	66,204,126	kWh	MWh	0.001	66,204	2021	105.7238	0.006804	0.0009072	kg/MWh	15,430,923.89	993.06	132.41	6,999,349.34	450.45	60.06	6,999.35	0.45	0.06	100-Year	7,027.88
Other	Credit Union Amphitheater	Electricity	Electricity	2021	817,547	kWh	MWh	0.001	818	2021	105.7238	0.006804	0.0009072	kg/MWh	190,554.67	12.26	1.64	86,454.15	5.56	0.74	86.43	0.01	0.00	100-Year	86.79
Other	NBT Stadium	Electricity	Electricity	2021	1,404,009	kWh	MWh	0.001	1,404	2021	105.7238	0.006804	0.0009072	kg/MWh	327,247.82	21.06	2.81	148,437.12	9.55	1.27	148.44	0.01	0.00	100-Year	149.04
Other	OnCenter	Electricity	Electricity	2021	5,044,022	kWh	MWh	0.001	5,044	2021	105.7238	0.006804	0.0009072	kg/MWh	1,175,665.69	75.66	10.09	533,272.99	34.32	4.58	533.27	0.03	0.00	100-Year	535.45
Sheriff's Office	Department of Corrections	Electricity	Electricity	2022	1,488,801	kWh	MWh	0.001	1,489	2022	124.5565	0.006804	0.0009072	kg/MWh	408,824.75	22.33	2.98	185,439.79	10.13	1.35	185.44	0.01	0.00	100-Year	186.08
Sheriff's Office	Sheriff's Office	Electricity	Electricity	2022	2,750,546	kWh	MWh	0.001	2,751	2022	124.5565	0.006804	0.0009072	kg/MWh	755,299.93	41.26	5.50	342,598.29	18.71	2.50	342.60	0.02	0.00	100-Year	343.78
County Executive	Board of Elections	Electricity	Electricity	2022	184,823	kWh	MWh	0.001	185	2022	124.5565	0.006804	0.0009072	kg/MWh	50,752.40	2.77	0.37	23,020.90	1.26	0.17	23.02	0.00	0.00	100-Year	23.10
County Executive	911E	Electricity	Electricity	2022	1,462,634	kWh	MWh	0.001	1,463	2022	124.5565	0.006804	0.0009072	kg/MWh	401,639.30	21.94	2.93	182,180.52	9.95	1.33	182.18	0.01	0.00	100-Year	182.81
County Executive	Department of Transportation	Electricity	Electricity	2022	1,318,731	kWh	MWh	0.001	1,319	2022	124.5565	0.006804	0.0009072	kg/MWh	362,123.53	19.78	2.64	164,256.47	8.97	1.20	164.26	0.01	0.00	100-Year	164.82
County Executive	Facilities Management	Electricity	Electricity	2022	20,538,206	kWh	MWh	0.001	20,538	2022	124.5565	0.006804	0.0009072	kg/MWh	5,639,791.37	308.07	41.08	2,558,166.33	139.74	18.63	2,558.17	0.14	0.02	100-Year	2,567.02
County Executive	Hillbrook	Electricity	Electricity	2022	704,720	kWh	MWh	0.001	705	2022	124.5565	0.006804	0.0009072	kg/MWh	193,516.11	10.57	1.41	87,777.43	4.79	0.64	87.78	0.00	0.00	100-Year	88.08
County Executive	Onondaga County Public Libraries	Electricity	Electricity	2022	1,964,393	kWh	MWh	0.001	1,964	2022	124.5565	0.006804	0.0009072	kg/MWh	539,422.32	29.47	3.93	244,677.85	13.37	1.78	244.68	0.01	0.00	100-Year	245.52
County Executive	Parks and Recreation	Electricity	Electricity	2022	3,845,137	kWh	MWh	0.001	3,845	2022	124.5565	0.006804	0.0009072	kg/MWh	1,055,874.60	57.68	7.69	478,936.66	26.16	3.49	478.94	0.03	0.00	100-Year	480.59
Water Environment Protection	Water Environment Protection	Electricity	Electricity	2022	62,211,536	kWh	MWh	0.001	62,212	2022	124.5565	0.006804	0.0009072	kg/MWh	17,083,287.71	933.17	124.42	7,748,848.96	423.28	56.44	7,748.85	0.42	0.06	100-Year	7,775.66
Other	Credit Union Amphitheater	Electricity	Electricity	2022	979,088	kWh	MWh	0.001	979	2022	124.5565	0.006804	0.0009072	kg/MWh	268,857.56	14.69	1.96	121,951.74	6.66	0.89	121.95	0.01	0.00	100-Year	122.37
Other	NBT Stadium	Electricity	Electricity	2022	1,539,933	kWh	MWh	0.001	1,540	2022	124.5565	0.006804	0.0009072	kg/MWh	422,865.60	23.10	3.08	191,808.61	10.48	1.40	191.81	0.01	0.00	100-Year	192.47
Other	OnCenter	Electricity	Electricity	2022	5,900,422	kWh	MWh	0.001	5,900	2022	124.5565	0.006804	0.0009072	kg/MWh	1,620,255.88	88.51	11.80	734,935.71	40.15	5.35	734.94	0.04	0.01	100-Year	737.48
Sheriff's Office	Department of Corrections	Electricity	Electricity	2023	1,322,496	kWh	MWh	0.001	1,322	2023	109.3158	0.00499	0.0004536	kg/MWh	318,721.54	14.55	1.32	144,569.66	6.60	0.60	144.57	0.01	0.00	100-Year	144.91
Sheriff's Office	Sheriff's Office	Electricity	Electricity	2023	2,794,356	kWh	MWh	0.001	2,794	2023	109.3158	0.00499	0.0004536	kg/MWh	673,439.80	30.74	2.79	305,467.15	13.94	1.27	305.47	0.01	0.00	100-Year	306.19
County Executive	Board of Elections	Electricity	Electricity	2023	140,121	kWh	MWh	0.001	140	2023	109.3158	0.00499	0.0004536	kg/MWh	33,769.16	1.54	0.14	15,317.43	0.70	0.06	15.32	0.00	0.00	100-Year	15.35
County Executive	911E	Electricity	Electricity	2023	1,461,705	kWh	MWh	0.001	1,462	2023	109.3158	0.00499	0.0004536	kg/MWh	352,270.79	16.08	1.46	159,787.34	7.29	0.66	159.79	0.01	0.00	100-Year	160.17
County Executive	Department of Transportation	Electricity	Electricity	2023	1,304,801	kWh	MWh	0.001	1,305	2023	109.3158	0.00499	0.0004536	kg/MWh	314,457.04	14.35	1.30	142,635.31	6.51	0.59	142.64	0.01	0.00	100-Year	142.97
County Executive	Facilities Management	Electricity	Electricity	2023	19,724,602	kWh	MWh	0.001	19,725	2023	109.3158	0.00499	0.0004536	kg/MWh	4,753,629.08	216.97	19.72	2,156,209.88	98.42	8.95	2,156.21	0.10	0.01	100-Year	2,161.34
County Executive	Hillbrook	Electricity	Electricity	2023	626,880	kWh	MWh	0.001	627	2023	109.3158	0.00499	0.0004536	kg/MWh	151,078.08	6.90	0.63	68,527.86	3.13	0.28	68.53	0.00	0.00	100-Year	68.69
County Executive	Onondaga County Public Libraries	Electricity	Electricity	2023	1,965,264	kWh	MWh	0.001	1,965	2023	109.3158	0.00499	0.0004536	kg/MWh	473,628.62	21.62	1.97	214,834.33	9.81	0.89	214.83	0.01	0.00	100-Year	215.35
County Executive	Parks and Recreation	Electricity	Electricity	2023	3,697,105	kWh	MWh	0.001	3,697	2023	109.3158	0.00499	0.0004536	kg/MWh	891,002.31	40.67	3.70	404,151.85	18.45	1.68	404.15	0.02	0.00	100-Year	405.11
Water Environment Protection	Water Environment Protection	Electricity	Electricity	2023	63,128,618	kWh	MWh	0.001	63,129	2023	109.3158	0.00499	0.0004536	kg/MWh	15,213,996.97	694.41	63.13	6,900,952.94	314.98	28.63	6,900.95	0.31	0.03	100-Year	6,917.36
Other	Credit Union Amphitheater	Electricity	Electricity	2023	910,460	kWh	MWh	0.001	910	2023	109.3158	0.00499	0.0004536	kg/MWh	219,420.86	10.02	0.91	99,527.63	4.54	0.41	99.53	0.00	0.00	100-Year	99.76

Facility Info		Emissions Categories		Year	Scaled Values				Misc		Emission Factor				Emissions									
Upper Department	**Direct Department**	**Emissions Category**	**Fuel Type**	**Year**	**Value in Original Unit**	**Original Unit**	**Emission Factor Unit**	**Conversion Factor (Original Unit to Emission Factor Unit)**	**Converted Value for Emission Factor Unit**	**Emission Factor Year**	**CO2**	**CH4**	**N2O**	**Unit**	**CO2 (lbs)**	**CH4 (lbs)**	**N2O (lbs)**	**CO2 (kg)**	**CH4 (kg)**	**N2O (kg)**	**CO2 (metric tons)**	**CH4 (metric tons)**	**N2O (metric tons)**	**GWP Basis**	**Total GHG (MTCDE)**
Other	NBT Stadium	Electricity	Electricity	2023	1,589,002	kWh	MWh	0.001	1,589	2023	109.3158	0.00499	0.0004536	kg/MWh	382,949.48	17.48	1.59	173,702.96	7.93	0.72	173.70	0.01	0.00	100-Year	174.12
Other	OnCenter	Electricity	Electricity	2023	6,068,776	kWh	MWh	0.001	6,069	2023	109.3158	0.00499	0.0004536	kg/MWh	1,462,575.02	66.76	6.07	663,412.87	30.28	2.75	663.41	0.03	0.00	100-Year	664.99
Sheriff's Office	Department of Corrections	Stationary Sources	Natural Gas	2018	133,674	therms	Mcf	0.096339114	12,878	All	54.44	0.00103	0.0001	kg/Mcf	1,545,617.29	29.24	2.84	701,080.21	13.26	1.29	701.08	0.01	0.00	100-Year	701.79
Sheriff's Office	Sheriff's Office	Stationary Sources	Natural Gas	2018	23,977	therms	Mcf	0.096339114	2,310	All	54.44	0.00103	0.0001	kg/Mcf	277,236.15	5.25	0.51	125,752.20	2.38	0.23	125.75	0.00	0.00	100-Year	125.88
County Executive	Board of Elections	Stationary Sources	Natural Gas	2018	14,466	therms	Mcf	0.096339114	1,394	All	54.44	0.00103	0.0001	kg/Mcf	167,264.39	3.16	0.31	75,869.85	1.44	0.14	75.87	0.00	0.00	100-Year	75.95
County Executive	911E	Stationary Sources	Natural Gas	2018	19,354	therms	Mcf	0.096339114	1,865	All	54.44	0.00103	0.0001	kg/Mcf	223,782.31	4.23	0.41	101,505.95	1.92	0.19	101.51	0.00	0.00	100-Year	101.61
County Executive	Department of Transportation	Stationary Sources	Natural Gas	2018	242,073	therms	Mcf	0.096339114	23,321	All	54.44	0.00103	0.0001	kg/Mcf	2,798,985.56	52.96	5.14	1,269,598.49	24.02	2.33	1,269.60	0.02	0.00	100-Year	1,270.89
County Executive	Facilities Management	Stationary Sources	Natural Gas	2018	1,429,448	therms	Mcf	0.096339114	137,712	All	54.44	0.00103	0.0001	kg/Mcf	16,528,117.20	312.71	30.36	7,497,027.85	141.84	13.77	7,497.03	0.14	0.01	100-Year	7,504.65
County Executive	Hillbrook	Stationary Sources	Natural Gas	2018	26,623	therms	Mcf	0.096339114	2,565	All	54.44	0.00103	0.0001	kg/Mcf	307,830.76	5.82	0.57	139,629.68	2.64	0.26	139.63	0.00	0.00	100-Year	139.77
County Executive	Onondaga County Public Libraries	Stationary Sources	Natural Gas	2018	61,207	therms	Mcf	0.096339114	5,897	All	54.44	0.00103	0.0001	kg/Mcf	707,711.28	13.39	1.30	321,012.44	6.07	0.59	321.01	0.01	0.00	100-Year	321.34
County Executive	Parks and Recreation	Stationary Sources	Natural Gas	2018	180,556	therms	Mcf	0.096339114	17,395	All	54.44	0.00103	0.0001	kg/Mcf	2,087,694.50	39.50	3.83	946,962.30	17.92	1.74	946.96	0.02	0.00	100-Year	947.92
Water Environment Protection	Water Environment Protection	Stationary Sources	Natural Gas	2018	763,442	therms	Mcf	0.096339114	73,549	All	54.44	0.00103	0.0001	kg/Mcf	8,827,364.73	167.01	16.21	4,004,025.29	75.76	7.35	4,004.03	0.08	0.01	100-Year	4,008.10
Other	Credit Union Amphitheater	Stationary Sources	Natural Gas	2018	0	therms	Mcf	0.096339114	0	All	54.44	0.00103	0.0001	kg/Mcf	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
Other	NBT Stadium	Stationary Sources	Natural Gas	2018	69,540	therms	Mcf	0.096339114	6,699	All	54.44	0.00103	0.0001	kg/Mcf	804,062.32	15.21	1.48	364,716.53	6.90	0.67	364.72	0.01	0.00	100-Year	365.09
Other	OnCenter	Stationary Sources	Natural Gas	2018	7,805	therms	Mcf	0.096339114	752	All	54.44	0.00103	0.0001	kg/Mcf	90,245.99	1.71	0.17	40,934.89	0.77	0.08	40.93	0.00	0.00	100-Year	40.98
Sheriff's Office	Department of Corrections	Stationary Sources	Natural Gas	2019	134,679	therms	Mcf	0.096339114	12,975	All	54.44	0.00103	0.0001	kg/Mcf	1,557,237.69	29.46	2.86	706,351.13	13.36	1.30	706.35	0.01	0.00	100-Year	707.07
Sheriff's Office	Sheriff's Office	Stationary Sources	Natural Gas	2019	22,208	therms	Mcf	0.096339114	2,139	All	54.44	0.00103	0.0001	kg/Mcf	256,781.94	4.86	0.47	116,474.33	2.20	0.21	116.47	0.00	0.00	100-Year	116.59
County Executive	Board of Elections	Stationary Sources	Natural Gas	2019	14,500	therms	Mcf	0.096339114	1,397	All	54.44	0.00103	0.0001	kg/Mcf	167,657.51	3.17	0.31	76,048.17	1.44	0.14	76.05	0.00	0.00	100-Year	76.13
County Executive	911E	Stationary Sources	Natural Gas	2019	17,603	therms	Mcf	0.096339114	1,696	All	54.44	0.00103	0.0001	kg/Mcf	203,536.22	3.85	0.37	92,322.48	1.75	0.17	92.32	0.00	0.00	100-Year	92.42
County Executive	Department of Transportation	Stationary Sources	Natural Gas	2019	218,035	therms	Mcf	0.096339114	21,005	All	54.44	0.00103	0.0001	kg/Mcf	2,521,047.55	47.70	4.63	1,143,527.93	21.64	2.10	1,143.53	0.02	0.00	100-Year	1,144.69
County Executive	Facilities Management	Stationary Sources	Natural Gas	2019	1,480,676	therms	Mcf	0.096339114	142,647	All	54.44	0.00103	0.0001	kg/Mcf	17,120,445.42	323.92	31.45	7,765,703.41	146.93	14.26	7,765.70	0.15	0.01	100-Year	7,773.60
County Executive	Hillbrook	Stationary Sources	Natural Gas	2019	19,725	therms	Mcf	0.096339114	1,900	All	54.44	0.00103	0.0001	kg/Mcf	228,072.03	4.32	0.42	103,451.73	1.96	0.19	103.45	0.00	0.00	100-Year	103.56
County Executive	Onondaga County Public Libraries	Stationary Sources	Natural Gas	2019	57,333	therms	Mcf	0.096339114	5,523	All	54.44	0.00103	0.0001	kg/Mcf	662,917.81	12.54	1.22	300,694.46	5.69	0.55	300.69	0.01	0.00	100-Year	301.00
County Executive	Parks and Recreation	Stationary Sources	Natural Gas	2019	175,951	therms	Mcf	0.096339114	16,951	All	54.44	0.00103	0.0001	kg/Mcf	2,034,448.79	38.49	3.74	922,810.45	17.46	1.70	922.81	0.02	0.00	100-Year	923.75
Water Environment Protection	Water Environment Protection	Stationary Sources	Natural Gas	2019	1,079,777	therms	Mcf	0.096339114	104,025	All	54.44	0.00103	0.0001	kg/Mcf	12,485,015.76	236.22	22.93	5,663,107.89	107.15	10.40	5,663.11	0.11	0.01	100-Year	5,668.86
Other	Credit Union Amphitheater	Stationary Sources	Natural Gas	2019	0	therms	Mcf	0.096339114	0	All	54.44	0.00103	0.0001	kg/Mcf	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
Other	NBT Stadium	Stationary Sources	Natural Gas	2019	62,393	therms	Mcf	0.096339114	6,011	All	54.44	0.00103	0.0001	kg/Mcf	721,424.51	13.65	1.33	327,232.65	6.19	0.60	327.23	0.01	0.00	100-Year	327.57
Other	OnCenter	Stationary Sources	Natural Gas	2019	5,694	therms	Mcf	0.096339114	549	All	54.44	0.00103	0.0001	kg/Mcf	65,837.37	1.25	0.12	29,863.33	0.57	0.05	29.86	0.00	0.00	100-Year	29.89
Sheriff's Office	Department of Corrections	Stationary Sources	Natural Gas	2020	116,290	therms	Mcf	0.096339114	11,203	All	54.44	0.00103	0.0001	kg/Mcf	1,344,613.27	25.44	2.47	609,906.32	11.54	1.12	609.91	0.01	0.00	100-Year	610.53
Sheriff's Office	Sheriff's Office	Stationary Sources	Natural Gas	2020	19,777	therms	Mcf	0.096339114	1,905	All	54.44	0.00103	0.0001	kg/Mcf	228,673.29	4.33	0.42	103,724.46	1.96	0.19	103.72	0.00	0.00	100-Year	103.83
County Executive	Board of Elections	Stationary Sources	Natural Gas	2020	12,478	therms	Mcf	0.096339114	1,202	All	54.44	0.00103	0.0001	kg/Mcf	144,277.96	2.73	0.27	65,443.38	1.24	0.12	65.44	0.00	0.00	100-Year	65.51
County Executive	911E	Stationary Sources	Natural Gas	2020	14,981	therms	Mcf	0.096339114	1,443	All	54.44	0.00103	0.0001	kg/Mcf	173,219.12	3.28	0.32	78,570.87	1.49	0.14	78.57	0.00	0.00	100-Year	78.65
County Executive	Department of Transportation	Stationary Sources	Natural Gas	2020	196,424	therms	Mcf	0.096339114	18,923	All	54.44	0.00103	0.0001	kg/Mcf	2,271,167.32	42.97	4.17	1,030,184.17	19.49	1.89	1,030.18	0.02	0.00	100-Year	1,031.23
County Executive	Facilities Management	Stationary Sources	Natural Gas	2020	1,341,200	therms	Mcf	0.096339114	129,210	All	54.44	0.00103	0.0001	kg/Mcf	15,507,742.00	293.41	28.49	7,034,193.45	133.09	12.92	7,034.19	0.13	0.01	100-Year	7,041.34
County Executive	Hillbrook	Stationary Sources	Natural Gas	2020	20,011	therms	Mcf	0.096339114	1,928	All	54.44	0.00103	0.0001	kg/Mcf	231,378.93	4.38	0.43	104,951.72	1.99	0.19	104.95	0.00	0.00	100-Year	105.06
County Executive	Onondaga County Public Libraries	Stationary Sources	Natural Gas	2020	50,193	therms	Mcf	0.096339114	4,836	All	54.44	0.00103	0.0001	kg/Mcf	580,360.94	10.98	1.07	263,247.29	4.98	0.48	263.25	0.00	0.00	100-Year	263.51
County Executive	Parks and Recreation	Stationary Sources	Natural Gas	2020	145,238	therms	Mcf	0.096339114	13,992	All	54.44	0.00103	0.0001	kg/Mcf	1,679,327.05	31.77	3.08	761,729.93	14.41	1.40	761.73	0.01	0.00	100-Year	762.50
Water Environment Protection	Water Environment Protection	Stationary Sources	Natural Gas	2020	1,239,416	therms	Mcf	0.096339114	119,404	All	54.44	0.00103	0.0001	kg/Mcf	14,330,855.62	271.14	26.32	6,500,366.77	122.99	11.94	6,500.37	0.12	0.01	100-Year	6,506.97
Other	Credit Union Amphitheater	Stationary Sources	Natural Gas	2020	0	therms	Mcf	0.096339114	0	All	54.44	0.00103	0.0001	kg/Mcf	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
Other	NBT Stadium	Stationary Sources	Natural Gas	2020	47,676	therms	Mcf	0.096339114	4,593	All	54.44	0.00103	0.0001	kg/Mcf	551,257.91	10.43	1.01	250,046.38	4.73	0.46	250.05	0.00	0.00	100-Year	250.30
Other	OnCenter	Stationary Sources	Natural Gas	2020	3,765	therms	Mcf	0.096339114	363	All	54.44	0.00103	0.0001	kg/Mcf	43,533.14	0.82	0.08	19,746.30	0.37	0.04	19.75	0.00	0.00	100-Year	19.77
Sheriff's Office	Department of Corrections	Stationary Sources	Natural Gas	2021	117,937	therms	Mcf	0.096339114	11,362	All	54.44	0.00103	0.0001	kg/Mcf	1,363,656.85	25.80	2.50	618,544.34	11.70	1.14	618.54	0.01	0.00	100-Year	619.17
Sheriff's Office	Sheriff's Office	Stationary Sources	Natural Gas	2021	20,346	therms	Mcf	0.096339114	1,960	All	54.44	0.00103	0.0001	kg/Mcf	235,252.40	4.45	0.43	106,708.69	2.02	0.20	106.71	0.00	0.00	100-Year	106.82
County Executive	Board of Elections	Stationary Sources	Natural Gas	2021	12,415	therms	Mcf	0.096339114	1,196	All	54.44	0.00103	0.0001	kg/Mcf	143,549.52	2.72	0.26	65,112.97	1.23	0.12	65.11	0.00	0.00	100-Year	65.18
County Executive	911E	Stationary Sources	Natural Gas	2021	11,673	therms	Mcf	0.096339114	1,125	All	54.44	0.00103	0.0001	kg/Mcf	134,970.08	2.55	0.25	61,221.40	1.16	0.11	61.22	0.00	0.00	100-Year	61.28
County Executive	Department of Transportation	Stationary Sources	Natural Gas	2021	189,687	therms	Mcf	0.096339114	18,274	All	54.44	0.00103	0.0001	kg/Mcf	2,193,275.95	41.50	4.03	994,853.24	18.82	1.83	994.85	0.02	0.00	100-Year	995.86
County Executive	Facilities Management	Stationary Sources	Natural Gas	2021	1,347,838	therms	Mcf	0.096339114	129,850	All	54.44	0.00103	0.0001	kg/Mcf	15,584,494.46	294.86	28.63	7,069,007.78	133.75	12.98	7,069.01	0.13	0.01	100-Year	7,076.19
County Executive	Hillbrook	Stationary Sources	Natural Gas	2021	26,034	therms	Mcf	0.096339114	2,508	All	54.44	0.00103	0.0001	kg/Mcf	301,020.40	5.70	0.55	136,540.55	2.58	0.25	136.54	0.00	0.00	100-Year	136.68
County Executive	Onondaga County Public Libraries	Stationary Sources	Natural Gas	2021	49,385	therms	Mcf	0.096339114	4,758	All	54.44	0.00103	0.0001	kg/Mcf	571,018.37	10.80	1.05	259,009.58	4.90	0.48	259.01	0.00	0.00	100-Year	259.27
County Executive	Parks and Recreation	Stationary Sources	Natural Gas	2021	154,641	therms	Mcf	0.096339114	14,898	All	54.44	0.00103	0.0001	kg/Mcf	1,788,050.05	33.83	3.28	811,045.86	15.34	1.49	811.05	0.02	0.00	100-Year	811.87
Water Environment Protection	Water Environment Protection	Stationary Sources	Natural Gas	2021	1,340,834	therms	Mcf	0.096339114	129,175	All	54.44	0.00103	0.0001	kg/Mcf	15,503,510.10	293.33	28.48	7,032,273.89	133.05	12.92	7,032.27	0.13	0.01	100-Year	7,039.42
Other	Credit Union Amphitheater	Stationary Sources	Natural Gas	2021	0	therms	Mcf	0.096339114	0	All	54.44	0.00103	0.0001	kg/Mcf	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
Other	NBT Stadium	Stationary Sources	Natural Gas	2021	51,071	therms	Mcf	0.096339114	4,920	All	54.44	0.00103	0.0001	kg/Mcf	590,512.89	11.17	1.08	267,852.14	5.07	0.49	267.85	0.01	0.00	100-Year	268.12
Other	OnCenter	Stationary Sources	Natural Gas	2021	8,638	therms	Mcf	0.096339114	832	All	54.44	0.00103	0.0001	kg/Mcf	99,877.63	1.89	0.18	45,303.73	0.86	0.08	45.30	0.00	0.00	100-Year	45.35
Sheriff's Office	Department of Corrections	Stationary Sources	Natural Gas	2022	112,480	therms	Mcf	0.096339114	10,836	All	54.44	0.00103	0.0001	kg/Mcf	1,300,559.81	24.61	2.39	589,924.01	11.16	1.08	589.92	0.01	0.00	100-Year	590.52
Sheriff's Office	Sheriff's Office	Stationary Sources	Natural Gas	2022	25,331	therms	Mcf	0.096339114	2,440	All	54.44	0.00103	0.0001	kg/Mcf	292,891.90	5.54	0.54	132,853.53	2.51	0.24	132.85	0.00	0.00	100-Year	132.99
County Executive	Board of Elections	Stationary Sources	Natural Gas	2022	14,276	therms	Mcf	0.096339114	1,375	All	54.44	0.00103	0.0001	kg/Mcf	165,067.50	3.12	0.30	74,873.36	1.42	0.14	74.87	0.00	0.00	100-Year	74.95
County Executive	911E	Stationary Sources	Natural Gas	2022	17,932	therms	Mcf	0.096339114	1,728	All	54.44	0.00103	0.0001	kg/Mcf	207,340.31	3.92	0.38	94,047.98	1.78	0.17	94.05	0.00	0.00	100-Year	94.14
County Executive	Department of Transportation	Stationary Sources	Natural Gas	2022	248,098	therms	Mcf	0.096339114	23,901	All	54.44	0.00103	0.0001	kg/Mcf	2,868,648.99	54.27	5.27	1,301,197.29	24.62	2.39	1,301.20	0.02	0.00	100-Year	1,302.52
County Executive	Facilities Management	Stationary Sources	Natural Gas	2022	1,414,167	therms	Mcf	0.096339114	136,240	All	54.44	0.00103	0.0001	kg/Mcf	16,351,429.31	309.37	30.04	7,416,883.57	140.33	13.62	7,416.88	0.14	0.01	100-Year	7,424.42
County Executive	Hillbrook	Stationary Sources	Natural Gas	2022	31,950	therms	Mcf	0.096339114	3,078	All	54.44	0.00103	0.0001	kg/Mcf	369,424.66	6.99	0.68	167,568.21	3.17	0.31	167.57	0.00	0.00	100-Year	167.74
County Executive	Onondaga County Public Libraries	Stationary Sources	Natural Gas	2022	50,338	therms	Mcf	0.096339114	4,850	All	54.44	0.00103	0.0001	kg/Mcf	582,037.52	11.01	1.07	264,007.78	5.00	0.48	264.01	0.00	0.00	100-Year	264.28
County Executive	Parks and Recreation	Stationary Sources	Natural Gas	2022	156,597	therms	Mcf	0.096339114	15,086	All	54.44	0.00103	0.0001	kg/Mcf	1,810,666.47	34.26	3.33	821,304.50	15.54	1.51	821.30	0.02	0.00	100-Year	822.14
Water Environment Protection	Water Environment Protection	Stationary Sources	Natural Gas	2022	1,352,765	therms	Mcf	0.096339114	130,324	All	54.44	0.00103	0.0001	kg/Mcf	15,641,463.33	295.94	28.73	7,094,848.42	134.23	13.03	7,094.85	0.13	0.01	100-Year	7,102.06
Other	Credit Union Amphitheater	Stationary Sources	Natural Gas	2022	0	therms	Mcf	0.096339114	0	All	54.44	0.00103	0.0001	kg/Mcf	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
Other	NBT Stadium	Stationary Sources	Natural Gas	2022	61,662	therms	Mcf	0.096339114	5,940	All	54.44	0.00103	0.0001	kg/Mcf	712,972.25	13.49	1.31	323,398.77	6.12	0.59	323.40	0.01	0.00	100-Year	323.73
Other	OnCenter	Stationary Sources	Natural Gas	2022	7,805	therms	Mcf	0.096339114	752	All	54.44	0.00103	0.0001	kg/Mcf	90,245.99	1.71	0.17	40,934.89	0.77	0.08	40.93	0.00	0.00	100-Year	40.98
Sheriff's Office	Department of Corrections	Stationary Sources	Natural Gas	2023	104,394	therms	Mcf	0.096339114	10,057	All	54.44	0.00103	0.0001	kg/Mcf	1,207,064.73	22.84	2.22	547,515.35	10.36	1.01	547.52	0.01	0.00	100-Year	548.07
Sheriff's Office	Sheriff's Office	Stationary Sources	Natural Gas	2023	23,301	therms	Mcf	0.096339114	2,245	All	54.44	0.00103	0.0001	kg/Mcf	269,419.85	5.10	0.49	122,206.79	2.31	0.22	122.21	0.00	0.00	100-Year	122.33
County Executive	Board of Elections	Stationary Sources	Natural Gas	2023	13,554	therms	Mcf	0.096339114	1,306	All	54.44	0.00103	0.0001	kg/Mcf	156,719.31	2.97	0.29	71,086.68	1.34	0.13	71.09	0.00	0.00	100-Year	71.16
County Executive	911E	Stationary Sources	Natural Gas	2023	15,200	therms	Mcf	0.096339114	1,464	All	54.44	0.00103	0.0001	kg/Mcf	175,751.33	3.33	0.32	79,719.46	1.51	0.15	79.72	0.00	0.00	100-Year	79.80
County Executive	Department of Transportation	Stationary Sources	Natural Gas	2023	248,624	therms	Mcf	0.096339114	23,952	All	54.44	0.00103	0.0001	kg/Mcf	2,874,734.38	54.39	5.28	1,303,957.58	24.67	2.40	1,303.96	0.02	0.00	100-Year	1,305.28
County Executive	Facilities Management	Stationary Sources	Natural Gas	2023	1,311,715	therms	Mcf	0.096339114	126,369	All	54.44	0.00103	0.0001	kg/Mcf	15,166,819.12	286.95	27.86	6,879,553.43	130.16	12.64	6,879.55	0.13	0.01	100-Year	6,886.55
County Executive	Hillbrook	Stationary Sources	Natural Gas	2023	27,891	therms	Mcf	0.096339114	2,687	All	54.44	0.00103	0.0001	kg/Mcf	322,492.12	6.10	0.59	146,279.97	2.77	0.27	146.28	0.00	0.00	100-Year	146.43
County Executive	Onondaga County Public Libraries	Stationary Sources	Natural Gas	2023	51,188	therms	Mcf	0.096339114	4,931	All	54.44	0.00103	0.0001	kg/Mcf	591,865.72	11.20	1.09	268,465.77	5.08	0.49	268.47	0.01	0.00	100-Year	268.74
County Executive	Parks and Recreation	Stationary Sources	Natural Gas	2023	143,898	therms	Mcf	0.096339114	13,863	All	54.44	0.00103	0.0001	kg/Mcf	1,663,833.18	31.48	3.06	754,702.03	14.28	1.39	754.70	0.01	0.00	100-Year	755.47

Facility Info		Emissions Categories		Year	Scaled Values				Misc		Emission Factor				Emissions									
Upper Department	**Direct Department**	**Emissions Category**	**Fuel Type**	**Year**	**Value in Original Unit**	**Original Unit**	**Emission Factor Unit**	**Conversion Factor (Original Unit to Emission Factor Unit)**	**Converted Value for Emission Factor Unit**	**Emission Factor Year**	**CO2**	**CH4**	**N2O**	**Unit**	**CO2 (lbs)**	**CH4 (lbs)**	**N2O (lbs)**	**CO2 (kg)**	**CH4 (kg)**	**N2O (kg)**	**CO2 (metric tons)**	**CH4 (metric tons)**	**N2O (metric tons)**	**GWP Basis**	**Total GHG (MTCDE)**
Water Environment Protection	Water Environment Protection	Stationary Sources	Natural Gas	2023	923,713	therms	Mcf	0.096339114	88,990	All	54.44	0.00103	0.0001	kg/Mcf	10,680,512.15	202.07	19.62	4,844,598.82	91.66	8.90	4,844.60	0.09	0.01	100-Year	4,849.52
Other	Credit Union Amphitheater	Stationary Sources	Natural Gas	2023	0	therms	Mcf	0.096339114	0	All	54.44	0.00103	0.0001	kg/Mcf	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
Other	NBT Stadium	Stationary Sources	Natural Gas	2023	61,246	therms	Mcf	0.096339114	5,900	All	54.44	0.00103	0.0001	kg/Mcf	708,162.22	13.40	1.30	321,216.98	6.08	0.59	321.22	0.01	0.00	100-Year	321.54
Other	OnCenter	Stationary Sources	Natural Gas	2023	8,038	therms	Mcf	0.096339114	774	All	54.44	0.00103	0.0001	kg/Mcf	92,940.08	1.76	0.17	42,156.91	0.80	0.08	42.16	0.00	0.00	100-Year	42.20
County Executive	Parks and Recreation	Stationary Sources	Distillate Fuel Oils, No. 2 - Fuel Oil	2018	3,995	gallons	gallon	1	3,995	All	10.21	0.00041	0.00008	kg/gallon	89,928.74	3.61	0.70	40,790.99	1.64	0.32	40.79	0.00	0.00	100-Year	40.92
County Executive	Parks and Recreation	Stationary Sources	Distillate Fuel Oils, No. 2 - Fuel Oil	2019	4,244	gallons	gallon	1	4,244	All	10.21	0.00041	0.00008	kg/gallon	95,538.04	3.84	0.75	43,335.32	1.74	0.34	43.34	0.00	0.00	100-Year	43.47
County Executive	Parks and Recreation	Stationary Sources	Distillate Fuel Oils, No. 2 - Fuel Oil	2020	3,200	gallons	gallon	1	3,200	All	10.21	0.00041	0.00008	kg/gallon	72,024.93	2.89	0.56	32,669.96	1.31	0.26	32.67	0.00	0.00	100-Year	32.77
County Executive	Parks and Recreation	Stationary Sources	Distillate Fuel Oils, No. 2 - Fuel Oil	2021	4,200	gallons	gallon	1	4,200	All	10.21	0.00041	0.00008	kg/gallon	94,540.88	3.80	0.74	42,883.02	1.72	0.34	42.88	0.00	0.00	100-Year	43.02
County Executive	Parks and Recreation	Stationary Sources	Distillate Fuel Oils, No. 2 - Fuel Oil	2022	5,025	gallons	gallon	1	5,025	All	10.21	0.00041	0.00008	kg/gallon	113,110.97	4.54	0.89	51,306.27	2.06	0.40	51.31	0.00	0.00	100-Year	51.47
County Executive	Parks and Recreation	Stationary Sources	Distillate Fuel Oils, No. 2 - Fuel Oil	2023	4,202	gallons	gallon	1	4,202	All	10.21	0.00041	0.00008	kg/gallon	94,585.90	3.80	0.74	42,903.44	1.72	0.34	42.90	0.00	0.00	100-Year	43.04
County Executive	911E	Stationary Sources	Propane	2018	0	gallons	gallon	1	0	All	5.72	0.00027	0.00005	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Parks and Recreation	Stationary Sources	Propane	2018	28,709	gallons	gallon	1	28,709	All	5.72	0.00027	0.00005	kg/gallon	362,035.68	17.09	3.16	164,216.62	7.75	1.44	164.22	0.01	0.00	100-Year	164.81
Water Environment Protection	Water Environment Protection	Stationary Sources	Propane	2018	0	gallons	gallon	1	0	All	5.72	0.00027	0.00005	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	911E	Stationary Sources	Propane	2019	0	gallons	gallon	1	0	All	5.72	0.00027	0.00005	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Parks and Recreation	Stationary Sources	Propane	2019	23,338	gallons	gallon	1	23,338	All	5.72	0.00027	0.00005	kg/gallon	294,307.27	13.89	2.57	133,495.53	6.30	1.17	133.50	0.01	0.00	100-Year	133.98
Water Environment Protection	Water Environment Protection	Stationary Sources	Propane	2019	0	gallons	gallon	1	0	All	5.72	0.00027	0.00005	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	911E	Stationary Sources	Propane	2020	149	gallons	gallon	1	149	All	5.72	0.00027	0.00005	kg/gallon	1,875.17	0.09	0.02	850.56	0.04	0.01	0.85	0.00	0.00	100-Year	0.85
County Executive	Parks and Recreation	Stationary Sources	Propane	2020	21,491	gallons	gallon	1	21,491	All	5.72	0.00027	0.00005	kg/gallon	271,013.52	12.79	2.37	122,929.66	5.80	1.07	122.93	0.01	0.00	100-Year	123.38
Water Environment Protection	Water Environment Protection	Stationary Sources	Propane	2020	3,420	gallons	gallon	1	3,420	All	5.72	0.00027	0.00005	kg/gallon	43,125.19	2.04	0.38	19,561.26	0.92	0.17	19.56	0.00	0.00	100-Year	19.63
County Executive	911E	Stationary Sources	Propane	2021	144	gallons	gallon	1	144	All	5.72	0.00027	0.00005	kg/gallon	1,814.64	0.09	0.02	823.11	0.04	0.01	0.82	0.00	0.00	100-Year	0.83
County Executive	Parks and Recreation	Stationary Sources	Propane	2021	20,292	gallons	gallon	1	20,292	All	5.72	0.00027	0.00005	kg/gallon	255,887.29	12.08	2.24	116,068.52	5.48	1.01	116.07	0.01	0.00	100-Year	116.49
Water Environment Protection	Water Environment Protection	Stationary Sources	Propane	2021	3,145	gallons	gallon	1	3,145	All	5.72	0.00027	0.00005	kg/gallon	39,656.06	1.87	0.35	17,987.68	0.85	0.16	17.99	0.00	0.00	100-Year	18.05
County Executive	911E	Stationary Sources	Propane	2022	0	gallons	gallon	1	0	All	5.72	0.00027	0.00005	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Parks and Recreation	Stationary Sources	Propane	2022	26,434	gallons	gallon	1	26,434	All	5.72	0.00027	0.00005	kg/gallon	333,339.36	15.73	2.91	151,200.19	7.14	1.32	151.20	0.01	0.00	100-Year	151.75
Water Environment Protection	Water Environment Protection	Stationary Sources	Propane	2022	4,999	gallons	gallon	1	4,999	All	5.72	0.00027	0.00005	kg/gallon	63,044.64	2.98	0.55	28,596.57	1.35	0.25	28.60	0.00	0.00	100-Year	28.70
County Executive	911E	Stationary Sources	Propane	2023	246	gallons	gallon	1	246	All	5.72	0.00027	0.00005	kg/gallon	3,095.86	0.15	0.03	1,404.26	0.07	0.01	1.40	0.00	0.00	100-Year	1.41
County Executive	Parks and Recreation	Stationary Sources	Propane	2023	21,158	gallons	gallon	1	21,158	All	5.72	0.00027	0.00005	kg/gallon	266,815.50	12.59	2.33	121,025.48	5.71	1.06	121.03	0.01	0.00	100-Year	121.47
Water Environment Protection	Water Environment Protection	Stationary Sources	Propane	2023	2,678	gallons	gallon	1	2,678	All	5.72	0.00027	0.00005	kg/gallon	33,768.24	1.59	0.30	15,317.02	0.72	0.13	15.32	0.00	0.00	100-Year	15.37
County Executive	911E	Mobile Sources	Diesel Fuel	2018	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
Sheriff's Office	Department of Corrections	Mobile Sources	Diesel Fuel	2018	22	gallons	gallon	1	22	All	10.21	0.000641	0.0004729	kg/gallon	500.60	0.03	0.02	227.07	0.01	0.01	0.23	0.00	0.00	100-Year	0.23
County Executive	Department of Transportation	Mobile Sources	Diesel Fuel	2018	257,923	gallons	gallon	1	257,923	All	10.21	0.000641	0.0004729	kg/gallon	5,805,637.36	364.43	268.92	2,633,392.81	165.30	121.98	2,633.39	0.17	0.12	100-Year	2,670.35
County Executive	Facilities Management	Mobile Sources	Diesel Fuel	2018	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Hillbrook	Mobile Sources	Diesel Fuel	2018	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Parks and Recreation	Mobile Sources	Diesel Fuel	2018	9,866	gallons	gallon	1	9,866	All	10.21	0.000641	0.0004729	kg/gallon	222,068.98	13.94	10.29	100,728.80	6.32	4.67	100.73	0.01	0.00	100-Year	102.14
Sheriff's Office	Sheriff's Office	Mobile Sources	Diesel Fuel	2018	1,165	gallons	gallon	1	1,165	All	10.21	0.000641	0.0004729	kg/gallon	26,234.24	1.65	1.22	11,899.65	0.75	0.55	11.90	0.00	0.00	100-Year	12.07
Water Environment Protection	Water Environment Protection	Mobile Sources	Diesel Fuel	2018	63,338	gallons	gallon	1	63,338	All	10.21	0.000641	0.0004729	kg/gallon	1,425,692.02	89.49	66.04	646,683.02	40.59	29.96	646.68	0.04	0.03	100-Year	655.76
Miscellaneous Departments	Miscellaneous Departments	Mobile Sources	Diesel Fuel	2018	91,677	gallons	gallon	1	91,677	All	10.21	0.000641	0.0004729	kg/gallon	2,063,575.65	129.53	95.59	936,022.17	58.76	43.36	936.02	0.06	0.04	100-Year	949.16
County Executive	911E	Mobile Sources	Diesel Fuel	2019	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
Sheriff's Office	Department of Corrections	Mobile Sources	Diesel Fuel	2019	55	gallons	gallon	1	55	All	10.21	0.000641	0.0004729	kg/gallon	1,247.01	0.08	0.06	565.63	0.04	0.03	0.57	0.00	0.00	100-Year	0.57
County Executive	Department of Transportation	Mobile Sources	Diesel Fuel	2019	222,172	gallons	gallon	1	222,172	All	10.21	0.000641	0.0004729	kg/gallon	5,000,920.06	313.92	231.65	2,268,379.18	142.39	105.07	2,268.38	0.14	0.11	100-Year	2,300.21
County Executive	Facilities Management	Mobile Sources	Diesel Fuel	2019	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Hillbrook	Mobile Sources	Diesel Fuel	2019	191	gallons	gallon	1	191	All	10.21	0.000641	0.0004729	kg/gallon	4,301.51	0.27	0.20	1,951.13	0.12	0.09	1.95	0.00	0.00	100-Year	1.98
County Executive	Parks and Recreation	Mobile Sources	Diesel Fuel	2019	9,364	gallons	gallon	1	9,364	All	10.21	0.000641	0.0004729	kg/gallon	210,771.62	13.23	9.76	95,604.40	6.00	4.43	95.60	0.01	0.00	100-Year	96.95
Sheriff's Office	Sheriff's Office	Mobile Sources	Diesel Fuel	2019	1,027	gallons	gallon	1	1,027	All	10.21	0.000641	0.0004729	kg/gallon	23,106.59	1.45	1.07	10,480.97	0.66	0.49	10.48	0.00	0.00	100-Year	10.63
Water Environment Protection	Water Environment Protection	Mobile Sources	Diesel Fuel	2019	63,275	gallons	gallon	1	63,275	All	10.21	0.000641	0.0004729	kg/gallon	1,424,276.64	89.40	65.97	646,041.02	40.55	29.93	646.04	0.04	0.03	100-Year	655.11
Miscellaneous Departments	Miscellaneous Departments	Mobile Sources	Diesel Fuel	2019	97,060	gallons	gallon	1	97,060	All	10.21	0.000641	0.0004729	kg/gallon	2,184,742.66	137.14	101.20	990,982.60	62.21	45.90	990.98	0.06	0.05	100-Year	1,004.89
County Executive	911E	Mobile Sources	Diesel Fuel	2020	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
Sheriff's Office	Department of Corrections	Mobile Sources	Diesel Fuel	2020	229	gallons	gallon	1	229	All	10.21	0.000641	0.0004729	kg/gallon	5,151.00	0.32	0.24	2,336.46	0.15	0.11	2.34	0.00	0.00	100-Year	2.37
County Executive	Department of Transportation	Mobile Sources	Diesel Fuel	2020	228,958	gallons	gallon	1	228,958	All	10.21	0.000641	0.0004729	kg/gallon	5,153,661.85	323.50	238.72	2,337,661.69	146.74	108.28	2,337.66	0.15	0.11	100-Year	2,370.47
County Executive	Facilities Management	Mobile Sources	Diesel Fuel	2020	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Hillbrook	Mobile Sources	Diesel Fuel	2020	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Parks and Recreation	Mobile Sources	Diesel Fuel	2020	9,218	gallons	gallon	1	9,218	All	10.21	0.000641	0.0004729	kg/gallon	207,487.53	13.02	9.61	94,114.76	5.91	4.36	94.11	0.01	0.00	100-Year	95.44
Sheriff's Office	Sheriff's Office	Mobile Sources	Diesel Fuel	2020	573	gallons	gallon	1	573	All	10.21	0.000641	0.0004729	kg/gallon	12,906.77	0.81	0.60	5,854.41	0.37	0.27	5.85	0.00	0.00	100-Year	5.94
Water Environment Protection	Water Environment Protection	Mobile Sources	Diesel Fuel	2020	57,416	gallons	gallon	1	57,416	All	10.21	0.000641	0.0004729	kg/gallon	1,292,384.70	81.13	59.86	586,215.84	36.80	27.15	586.22	0.04	0.03	100-Year	594.44
County Executive	911E	Mobile Sources	Diesel Fuel	2021	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
Sheriff's Office	Department of Corrections	Mobile Sources	Diesel Fuel	2021	96	gallons	gallon	1	96	All	10.21	0.000641	0.0004729	kg/gallon	2,160.43	0.14	0.10	979.96	0.06	0.05	0.98	0.00	0.00	100-Year	0.99
County Executive	Department of Transportation	Mobile Sources	Diesel Fuel	2021	227,243	gallons	gallon	1	227,243	All	10.21	0.000641	0.0004729	kg/gallon	5,115,056.10	321.08	236.94	2,320,150.42	145.64	107.47	2,320.15	0.15	0.11	100-Year	2,352.71
County Executive	Facilities Management	Mobile Sources	Diesel Fuel	2021	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Hillbrook	Mobile Sources	Diesel Fuel	2021	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Parks and Recreation	Mobile Sources	Diesel Fuel	2021	11,376	gallons	gallon	1	11,376	All	10.21	0.000641	0.0004729	kg/gallon	256,073.63	16.07	11.86	116,153.04	7.29	5.38	116.15	0.01	0.01	100-Year	117.78
Sheriff's Office	Sheriff's Office	Mobile Sources	Diesel Fuel	2021	649	gallons	gallon	1	649	All	10.21	0.000641	0.0004729	kg/gallon	14,615.45	0.92	0.68	6,629.46	0.42	0.31	6.63	0.00	0.00	100-Year	6.72
Water Environment Protection	Water Environment Protection	Mobile Sources	Diesel Fuel	2021	59,225	gallons	gallon	1	59,225	All	10.21	0.000641	0.0004729	kg/gallon	1,333,115.11	83.68	61.75	604,690.84	37.96	28.01	604.69	0.04	0.03	100-Year	613.18
County Executive	911E	Mobile Sources	Diesel Fuel	2022	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
Sheriff's Office	Department of Corrections	Mobile Sources	Diesel Fuel	2022	149	gallons	gallon	1	149	All	10.21	0.000641	0.0004729	kg/gallon	3,356.35	0.21	0.16	1,522.41	0.10	0.07	1.52	0.00	0.00	100-Year	1.54
County Executive	Department of Transportation	Mobile Sources	Diesel Fuel	2022	252,606	gallons	gallon	1	252,606	All	10.21	0.000641	0.0004729	kg/gallon	5,685,948.53	356.92	263.38	2,579,102.87	161.89	119.47	2,579.10	0.16	0.12	100-Year	2,615.29
County Executive	Facilities Management	Mobile Sources	Diesel Fuel	2022	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Hillbrook	Mobile Sources	Diesel Fuel	2022	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Parks and Recreation	Mobile Sources	Diesel Fuel	2022	12,027	gallons	gallon	1	12,027	All	10.21	0.000641	0.0004729	kg/gallon	270,711.36	16.99	12.54	122,792.61	7.71	5.69	122.79	0.01	0.01	100-Year	124.52
Sheriff's Office	Sheriff's Office	Mobile Sources	Diesel Fuel	2022	1,364	gallons	gallon	1	1,364	All	10.21	0.000641	0.0004729	kg/gallon	30,704.57	1.93	1.42	13,927.36	0.87	0.65	13.93	0.00	0.00	100-Year	14.12
Water Environment Protection	Water Environment Protection	Mobile Sources	Diesel Fuel	2022	56,676	gallons	gallon	1	56,676	All	10.21	0.000641	0.0004729	kg/gallon	1,275,725.37	80.08	59.09	578,659.30	36.32	26.80	578.66	0.04	0.03	100-Year	586.78
County Executive	911E	Mobile Sources	Diesel Fuel	2023	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
Sheriff's Office	Department of Corrections	Mobile Sources	Diesel Fuel	2023	64	gallons	gallon	1	64	All	10.21	0.000641	0.0004729	kg/gallon	1,434.29	0.09	0.07	650.58	0.04	0.03	0.65	0.00	0.00	100-Year	0.66
County Executive	Department of Transportation	Mobile Sources	Diesel Fuel	2023	201,986	gallons	gallon	1	201,986	All	10.21	0.000641	0.0004729	kg/gallon	4,546,546.04	285.39	210.60	2,062,278.59	129.45	95.53	2,062.28	0.13	0.10	100-Year	2,091.22
County Executive	Facilities Management	Mobile Sources	Diesel Fuel	2023	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Hillbrook	Mobile Sources	Diesel Fuel	2023	0	gallons	gallon	1	0	All	10.21	0.000641	0.0004729	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Parks and Recreation	Mobile Sources	Diesel Fuel	2023	13,166	gallons	gallon	1	13,166	All	10.21	0.000641	0.0004729	kg/gallon	296,344.83	18.60	13.73	134,419.76	8.44	6.23	134.42	0.01	0.01	100-Year	136.31

Facility Info		Emissions Categories		Year	Scaled Values				Misc		Emission Factor				Emissions								
Upper Department	**Direct Department**	**Emissions Category**	**Fuel Type**	**Year**	**Value in Original Unit**	**Original Unit**	**Emission Factor Unit**	**Conversion Factor (Original Unit to Emission Factor Unit)**	**Converted Value for Emission Factor Unit**	**Emission Factor Year**	**CO2**	**CH4**	**N2O**	**Unit**	**CO2 (lbs)**	**CH4 (lbs)**	**N2O (lbs)**	**CO2 (kg)**	**CH4 (kg)**	**N2O (kg)**	**CO2 (metric tons)**	**CH4 (metric tons)**	**N2O (metric tons)**	**GWP Basis**	**Total GHG (MTCDE)**
Sheriff's Office	Sheriff's Office	Mobile Sources	Diesel Fuel	2023	590	gallons	gallon	1	590	All	10.21	0.000641	0.0004729	kg/gallon	13,270.52	0.83	0.61	6,019.41	0.38	0.28	6.02	0.00	0.00	100-Year	6.10
Water Environment Protection	Water Environment Protection	Mobile Sources	Diesel Fuel	2023	60,767	gallons	gallon	1	60,767	All	10.21	0.000641	0.0004729	kg/gallon	1,367,824.61	85.86	63.36	620,434.81	38.95	28.74	620.43	0.04	0.03	100-Year	629.14
County Executive	911E	Mobile Sources	Gasoline	2018	504	gallons	gallon	1	504	All	8.78	0.000131	0.0000222	kg/gallon	9,762.49	0.15	0.02	4,428.19	0.07	0.01	4.43	0.00	0.00	100-Year	4.43
Sheriff's Office	Department of Corrections	Mobile Sources	Gasoline	2018	622	gallons	gallon	1	622	All	8.78	0.000131	0.0000222	kg/gallon	12,035.54	0.18	0.03	5,459.23	0.08	0.01	5.46	0.00	0.00	100-Year	5.47
County Executive	Department of Transportation	Mobile Sources	Gasoline	2018	52,839	gallons	gallon	1	52,839	All	8.78	0.000131	0.0000222	kg/gallon	1,022,774.94	15.30	2.59	463,922.91	6.94	1.17	463.92	0.01	0.00	100-Year	464.43
County Executive	Facilities Management	Mobile Sources	Gasoline	2018	3,993	gallons	gallon	1	3,993	All	8.78	0.000131	0.0000222	kg/gallon	77,288.14	1.16	0.20	35,057.31	0.52	0.09	35.06	0.00	0.00	100-Year	35.10
County Executive	Hillbrook	Mobile Sources	Gasoline	2018	0	gallons	gallon	1	0	All	8.78	0.000131	0.0000222	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Parks and Recreation	Mobile Sources	Gasoline	2018	25,287	gallons	gallon	1	25,287	All	8.78	0.000131	0.0000222	kg/gallon	489,466.13	7.32	1.24	222,018.10	3.32	0.56	222.02	0.00	0.00	100-Year	222.26
Sheriff's Office	Sheriff's Office	Mobile Sources	Gasoline	2018	224,562	gallons	gallon	1	224,562	All	8.78	0.000131	0.0000222	kg/gallon	4,346,754.39	65.03	10.99	1,971,654.62	29.50	4.99	1,971.65	0.03	0.00	100-Year	1,973.80
Water Environment Protection	Water Environment Protection	Mobile Sources	Gasoline	2018	108,874	gallons	gallon	1	108,874	All	8.78	0.000131	0.0000222	kg/gallon	2,107,425.14	31.53	5.33	955,911.96	14.30	2.42	955.91	0.01	0.00	100-Year	956.95
County Executive	911E	Mobile Sources	Gasoline	2019	558	gallons	gallon	1	558	All	8.78	0.000131	0.0000222	kg/gallon	10,794.20	0.16	0.03	4,896.17	0.07	0.01	4.90	0.00	0.00	100-Year	4.90
Sheriff's Office	Department of Corrections	Mobile Sources	Gasoline	2019	1,413	gallons	gallon	1	1,413	All	8.78	0.000131	0.0000222	kg/gallon	27,349.50	0.41	0.07	12,405.53	0.19	0.03	12.41	0.00	0.00	100-Year	12.42
County Executive	Department of Transportation	Mobile Sources	Gasoline	2019	57,526	gallons	gallon	1	57,526	All	8.78	0.000131	0.0000222	kg/gallon	1,113,503.13	16.66	2.82	505,076.52	7.56	1.28	505.08	0.01	0.00	100-Year	505.63
County Executive	Facilities Management	Mobile Sources	Gasoline	2019	3,962	gallons	gallon	1	3,962	All	8.78	0.000131	0.0000222	kg/gallon	76,697.38	1.15	0.19	34,789.35	0.52	0.09	34.79	0.00	0.00	100-Year	34.83
County Executive	Hillbrook	Mobile Sources	Gasoline	2019	0	gallons	gallon	1	0	All	8.78	0.000131	0.0000222	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Parks and Recreation	Mobile Sources	Gasoline	2019	28,586	gallons	gallon	1	28,586	All	8.78	0.000131	0.0000222	kg/gallon	553,321.58	8.28	1.40	250,982.45	3.75	0.63	250.98	0.00	0.00	100-Year	251.26
Sheriff's Office	Sheriff's Office	Mobile Sources	Gasoline	2019	222,940	gallons	gallon	1	222,940	All	8.78	0.000131	0.0000222	kg/gallon	4,315,364.58	64.56	10.91	1,957,416.45	29.28	4.95	1,957.42	0.03	0.00	100-Year	1,959.55
Water Environment Protection	Water Environment Protection	Mobile Sources	Gasoline	2019	110,776	gallons	gallon	1	110,776	All	8.78	0.000131	0.0000222	kg/gallon	2,144,238.66	32.08	5.42	972,610.29	14.55	2.46	972.61	0.01	0.00	100-Year	973.67
County Executive	911E	Mobile Sources	Gasoline	2020	190	gallons	gallon	1	190	All	8.78	0.000131	0.0000222	kg/gallon	3,671.94	0.05	0.01	1,665.57	0.02	0.00	1.67	0.00	0.00	100-Year	1.67
Sheriff's Office	Department of Corrections	Mobile Sources	Gasoline	2020	1,418	gallons	gallon	1	1,418	All	8.78	0.000131	0.0000222	kg/gallon	27,442.41	0.41	0.07	12,447.67	0.19	0.03	12.45	0.00	0.00	100-Year	12.46
County Executive	Department of Transportation	Mobile Sources	Gasoline	2020	49,561	gallons	gallon	1	49,561	All	8.78	0.000131	0.0000222	kg/gallon	959,329.66	14.35	2.43	435,144.61	6.51	1.10	435.14	0.01	0.00	100-Year	435.62
County Executive	Facilities Management	Mobile Sources	Gasoline	2020	0	gallons	gallon	1	0	All	8.78	0.000131	0.0000222	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Hillbrook	Mobile Sources	Gasoline	2020	0	gallons	gallon	1	0	All	8.78	0.000131	0.0000222	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Parks and Recreation	Mobile Sources	Gasoline	2020	24,012	gallons	gallon	1	24,012	All	8.78	0.000131	0.0000222	kg/gallon	464,788.42	6.95	1.18	210,824.48	3.15	0.53	210.82	0.00	0.00	100-Year	211.05
Sheriff's Office	Sheriff's Office	Mobile Sources	Gasoline	2020	231,387	gallons	gallon	1	231,387	All	8.78	0.000131	0.0000222	kg/gallon	4,478,855.06	67.00	11.32	2,031,574.48	30.39	5.14	2,031.57	0.03	0.01	100-Year	2,033.79
Water Environment Protection	Water Environment Protection	Mobile Sources	Gasoline	2020	102,275	gallons	gallon	1	102,275	All	8.78	0.000131	0.0000222	kg/gallon	1,979,695.36	29.62	5.01	897,974.71	13.43	2.27	897.97	0.01	0.00	100-Year	898.95
County Executive	911E	Mobile Sources	Gasoline	2021	282	gallons	gallon	1	282	All	8.78	0.000131	0.0000222	kg/gallon	5,452.36	0.08	0.01	2,473.15	0.04	0.01	2.47	0.00	0.00	100-Year	2.48
Sheriff's Office	Department of Corrections	Mobile Sources	Gasoline	2021	1,876	gallons	gallon	1	1,876	All	8.78	0.000131	0.0000222	kg/gallon	36,314.31	0.54	0.09	16,471.89	0.25	0.04	16.47	0.00	0.00	100-Year	16.49
County Executive	Department of Transportation	Mobile Sources	Gasoline	2021	49,457	gallons	gallon	1	49,457	All	8.78	0.000131	0.0000222	kg/gallon	957,315.61	14.32	2.42	434,231.06	6.50	1.10	434.23	0.01	0.00	100-Year	434.70
County Executive	Facilities Management	Mobile Sources	Gasoline	2021	0	gallons	gallon	1	0	All	8.78	0.000131	0.0000222	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Hillbrook	Mobile Sources	Gasoline	2021	0	gallons	gallon	1	0	All	8.78	0.000131	0.0000222	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Parks and Recreation	Mobile Sources	Gasoline	2021	33,680	gallons	gallon	1	33,680	All	8.78	0.000131	0.0000222	kg/gallon	651,927.90	9.75	1.65	295,709.52	4.42	0.75	295.71	0.00	0.00	100-Year	296.03
Sheriff's Office	Sheriff's Office	Mobile Sources	Gasoline	2021	216,474	gallons	gallon	1	216,474	All	8.78	0.000131	0.0000222	kg/gallon	4,190,189.52	62.69	10.59	1,900,638.00	28.43	4.81	1,900.64	0.03	0.00	100-Year	1,902.71
Water Environment Protection	Water Environment Protection	Mobile Sources	Gasoline	2021	104,071	gallons	gallon	1	104,071	All	8.78	0.000131	0.0000222	kg/gallon	2,014,467.13	30.14	5.09	913,746.92	13.67	2.31	913.75	0.01	0.00	100-Year	914.74
County Executive	911E	Mobile Sources	Gasoline	2022	172	gallons	gallon	1	172	All	8.78	0.000131	0.0000222	kg/gallon	3,329.72	0.05	0.01	1,510.34	0.02	0.00	1.51	0.00	0.00	100-Year	1.51
Sheriff's Office	Department of Corrections	Mobile Sources	Gasoline	2022	2,228	gallons	gallon	1	2,228	All	8.78	0.000131	0.0000222	kg/gallon	43,132.28	0.65	0.11	19,564.47	0.29	0.05	19.56	0.00	0.00	100-Year	19.59
County Executive	Department of Transportation	Mobile Sources	Gasoline	2022	51,035	gallons	gallon	1	51,035	All	8.78	0.000131	0.0000222	kg/gallon	987,866.69	14.78	2.50	448,088.79	6.70	1.13	448.09	0.01	0.00	100-Year	448.58
County Executive	Facilities Management	Mobile Sources	Gasoline	2022	0	gallons	gallon	1	0	All	8.78	0.000131	0.0000222	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Hillbrook	Mobile Sources	Gasoline	2022	0	gallons	gallon	1	0	All	8.78	0.000131	0.0000222	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Parks and Recreation	Mobile Sources	Gasoline	2022	21,561	gallons	gallon	1	21,561	All	8.78	0.000131	0.0000222	kg/gallon	417,351.24	6.24	1.06	189,307.34	2.83	0.48	189.31	0.00	0.00	100-Year	189.51
Sheriff's Office	Sheriff's Office	Mobile Sources	Gasoline	2022	218,736	gallons	gallon	1	218,736	All	8.78	0.000131	0.0000222	kg/gallon	4,233,984.65	63.34	10.71	1,920,503.13	28.73	4.86	1,920.50	0.03	0.00	100-Year	1,922.59
Water Environment Protection	Water Environment Protection	Mobile Sources	Gasoline	2022	102,558	gallons	gallon	1	102,558	All	8.78	0.000131	0.0000222	kg/gallon	1,985,177.96	29.70	5.02	900,461.58	13.47	2.28	900.46	0.01	0.00	100-Year	901.44
County Executive	911E	Mobile Sources	Gasoline	2023	140	gallons	gallon	1	140	All	8.78	0.000131	0.0000222	kg/gallon	2,717.08	0.04	0.01	1,232.45	0.02	0.00	1.23	0.00	0.00	100-Year	1.23
Sheriff's Office	Department of Corrections	Mobile Sources	Gasoline	2023	2,065	gallons	gallon	1	2,065	All	8.78	0.000131	0.0000222	kg/gallon	39,972.71	0.60	0.10	18,131.31	0.27	0.05	18.13	0.00	0.00	100-Year	18.15
County Executive	Department of Transportation	Mobile Sources	Gasoline	2023	46,923	gallons	gallon	1	46,923	All	8.78	0.000131	0.0000222	kg/gallon	908,264.27	13.59	2.30	411,981.75	6.16	1.04	411.98	0.01	0.00	100-Year	412.43
County Executive	Facilities Management	Mobile Sources	Gasoline	2023	0	gallons	gallon	1	0	All	8.78	0.000131	0.0000222	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Hillbrook	Mobile Sources	Gasoline	2023	0	gallons	gallon	1	0	All	8.78	0.000131	0.0000222	kg/gallon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100-Year	0.00
County Executive	Parks and Recreation	Mobile Sources	Gasoline	2023	22,733	gallons	gallon	1	22,733	All	8.78	0.000131	0.0000222	kg/gallon	440,025.54	6.58	1.11	199,592.23	2.99	0.50	199.59	0.00	0.00	100-Year	199.81
Sheriff's Office	Sheriff's Office	Mobile Sources	Gasoline	2023	229,569	gallons	gallon	1	229,569	All	8.78	0.000131	0.0000222	kg/gallon	4,443,669.14	66.48	11.24	2,015,614.42	30.15	5.10	2,015.61	0.03	0.01	100-Year	2,017.81
Water Environment Protection	Water Environment Protection	Mobile Sources	Gasoline	2023	105,360	gallons	gallon	1	105,360	All	8.78	0.000131	0.0000222	kg/gallon	2,039,418.29	30.51	5.16	925,064.58	13.84	2.34	925.06	0.01	0.00	100-Year	926.07

Appendix C
Emissions by Fuel Type and Source Type

Total MTCDE

By Fuel Type	2018	2019	2020	2021	2022	2023
Electricity	12,970.00	11,331.11	11,162.97	11,293.83	12,987.47	11,376.63
Natural Gas	15,855.87	17,496.96	17,070.06	17,695.46	18,340.47	15,397.10
Propane	164.81	133.98	143.86	135.37	180.45	138.25
Fuel Oil No. 2 (Stationary)	40.92	43.47	32.77	43.02	51.47	43.04
Gasoline	3,662.44	3,742.25	3,593.54	3,567.15	3,483.22	3,575.51
Diesel Fuel	4,389.70	4,070.33	3,068.65	3,091.38	3,342.26	2,863.43

Total MTCDE

By Emissions Category	2018	2019	2020	2021	2022	2023
Electricity	12,970.00	11,331.11	11,162.97	11,293.83	12,987.47	11,376.63
Stationary Sources	16,061.61	17,674.42	17,246.70	17,873.85	18,572.39	15,578.38
Mobile Sources	8,052.14	7,812.58	6,662.19	6,658.53	6,825.48	6,438.93
Wastewater Process Emissions	4,394.17	4,394.17	4,394.17	4,394.17	4,394.17	4,394.17
% Electric	33%	29%	29%	29%	31%	31%
% Stationary	41%	45%	45%	46%	45%	43%
% Mobile	21%	20%	17%	17%	16%	18%
% Wastewater Process	11%	11%	11%	11%	11%	12%

Appendix D
Solar Power Calculations

Facility Info		Emissions Categories		Year	Scaled Values		Misc		Emission Factor			
Upper Department	**Direct Department**	**Emissions Category**	**Fuel Type**	**Year**	**Scaled Annual Value in Original Unit**	**Original Unit**	**Converted Value for Emission Factor Unit**	**If Mobile, Type of Vehicle Assumed**	**CO2**	**CH4**	**N2O**	**Unit**
Sheriff's Office	Department of Corrections	Electricity 2018	Electricity	2018	1,648,204	KWh	1,648	N/A	114.8097	0.008165	0.000907	lbs/MWh
Water Environme	Water Environment Protection	Electricity 2018	Electricity	2018	17,054	KWh	17	N/A	114.8097	0.008165	0.000907	lbs/MWh
Sheriff's Office	Department of Corrections	Electricity 2019	Electricity	2019	1,874,961	KWh	1,875	N/A	114.8097	0.008165	0.000907	lbs/MWh
Water Environme	Water Environment Protection	Electricity 2019	Electricity	2019	2,800,031	KWh	2,800	N/A	114.8097	0.008165	0.000907	lbs/MWh
Sheriff's Office	Department of Corrections	Electricity 2020	Electricity	2020	2,148,742	KWh	2,149	N/A	114.8097	0.008165	0.000907	lbs/MWh
Water Environme	Water Environment Protection	Electricity 2020	Electricity	2020	2,458,646	KWh	2,459	N/A	114.8097	0.008165	0.000907	lbs/MWh
Sheriff's Office	Department of Corrections	Electricity 2021	Electricity	2021	2,164,937	KWh	2,165	N/A	114.8097	0.008165	0.000907	lbs/MWh
Water Environme	Water Environment Protection	Electricity 2021	Electricity	2021	2,439,649	KWh	2,440	N/A	114.8097	0.008165	0.000907	lbs/MWh
Sheriff's Office	Department of Corrections	Electricity 2022	Electricity	2022	2,298,869	KWh	2,299	N/A	114.8097	0.008165	0.000907	lbs/MWh
Water Environme	Water Environment Protection	Electricity 2022	Electricity	2022	2,176,272	KWh	2,176	N/A	114.8097	0.008165	0.000907	lbs/MWh
Sheriff's Office	Department of Corrections	Electricity 2023	Electricity	2023	2,011,587	KWh	2,012	N/A	114.8097	0.008165	0.000907	lbs/MWh
Water Environme	Water Environment Protection	Electricity 2023	Electricity	2023	2,540,269	KWh	2,540	N/A	114.8097	0.008165	0.000907	lbs/MWh

Facility Info		Emissions Categories		Year	Emissions										
Upper Department	**Direct Department**	**Emissions Category**	**Fuel Type**	**Year**	**CO2 (lbs)**	**CH4 (lbs)**	**N2O (lbs)**	**CO2 (kg)**	**CH4 (kg)**	**N2O (kg)**	**CO2 (metric tons)**	**CH4 (metric tons)**	**N2O (metric tons)**	**GWP Basis**	**Total GHG (MTCDE)**
Sheriff's Office	Department of Corrections	Electricity 2018	Electricity	2018	189229.8	13.45703	1.495226	417180.3	29.66768	3.296409	85.83319	0.006104	0.000678	100-Year	86.2
Water Environme	Water Environment Protection	Electricity 2018	Electricity	2018	1957.918	0.139237	0.015471	4316.471	0.306965	0.034107	0.888097	6.32E-05	7.02E-06	100-Year	0.9
Sheriff's Office	Department of Corrections	Electricity 2019	Electricity	2019	215263.7	15.30843	1.700936	474575.2	33.7493	3.749923	97.64197	0.006944	0.000772	100-Year	98.0
Water Environme	Water Environment Protection	Electricity 2019	Electricity	2019	321470.6	22.86131	2.540145	708721.4	50.40055	5.600061	145.8166	0.01037	0.001152	100-Year	146.4
Sheriff's Office	Department of Corrections	Electricity 2020	Electricity	2020	246696.4	17.54376	1.949306	543872.5	38.67736	4.297485	111.8996	0.007958	0.000884	100-Year	112.4
Water Environme	Water Environment Protection	Electricity 2020	Electricity	2020	282276.3	20.07401	2.230446	622312.8	44.25563	4.917292	128.0384	0.009105	0.001012	100-Year	128.6
Sheriff's Office	Department of Corrections	Electricity 2021	Electricity	2021	248555.7	17.67598	1.963997	547971.4	38.96886	4.329873	112.743	0.008018	0.000891	100-Year	113.2
Water Environme	Water Environment Protection	Electricity 2021	Electricity	2021	280095.3	19.91891	2.213212	617504.4	43.91368	4.879298	127.0491	0.009035	0.001004	100-Year	127.6
Sheriff's Office	Department of Corrections	Electricity 2022	Electricity	2022	263932.4	18.76949	2.085499	581871.3	41.37964	4.597738	119.7177	0.008514	0.000946	100-Year	120.2
Water Environme	Water Environment Protection	Electricity 2022	Electricity	2022	249857.1	17.76853	1.974281	550840.6	39.1729	4.352544	113.3333	0.00806	0.000896	100-Year	113.8
Sheriff's Office	Department of Corrections	Electricity 2023	Electricity	2023	230949.7	16.42393	1.824881	509156.9	36.20857	4.023174	104.757	0.00745	0.000828	100-Year	105.2
Water Environme	Water Environment Protection	Electricity 2023	Electricity	2023	291647.5	20.74044	2.304493	642972.6	45.72484	5.080538	132.289	0.009408	0.001045	100-Year	132.8