Village of Clayton Climate Action Plan for Government Operations

Local Actions for Improving Efficiency, Reducing Greenhouse Gas Emissions, and Saving Taxpayer Dollars

Approved by Village of Clayton Board
March 24, 2025

Introduction

New York State (NYS) is already experiencing the impacts of climate change and has made climate mitigation one of the top priorities for the state. The Village of Clayton is joining other communities in NYS through the Climate Smart Communities (CSC) program to lead the way by launching Climate Action Plans to strategically implement actions that will result in reduced energy demand and GHG emissions in across four focus areas.

The creation of a Climate Action Plan for the Village of Clayton will not only address climate protection, but it will also result in energy savings and advance community goals for public health and safety. By choosing to act now, the Village of Clayton is taking a leadership role in mitigating the impacts of climate change and aligning its goals with New York State's Climate Leadership and Community Protection Act (also known as the Climate Act), which requires a reduction in GHG emissions of 40 percent by 2030 and 85 percent by 2050 (below 1990 levels).

The Climate Action Plan identifies GHG emissions resulting from local government operations activities within the Village of Clayton. It addresses the major sources of emissions in focus areas and sets objectives and strategies that both the Village of Clayton and community can implement to achieve greenhouse gas reductions.

Local Climate Action Planning Process

1. Determine leadership and CAP framework.
2. Develop communication and engagement strategy.
3. Complete and analyze baseline assessments.
4. Identify goals and GHG reduction targets.
5. Identify existing and potential initiatives.
6. Prioritize initiatives.
7. Create a plan for implementing the chosen initiatives.
8. Establish metrics.
9. Write the CAP, adopt it, and make it publicly available.

GHG Reduction Targets

The Climate Action Plan is a critical component of a comprehensive approach to reducing the Village of Clayton's emissions. The Village of Clayton is committed to achieving an overall GHG emissions reduction target of 40% percent below the 2024 emission levels by 2030. This reduction target aligns with New York State's Climate Leadership and Community Protection Act (CLCPA). This target can be met if each focus area implements the list of recommended

actions to achieve the reduction target set for that sector. The goals and reduction targets for each of the focus areas are summarized in the following outline.

Village of Clayton's Strategies for Addressing Targets

- Improve efficiency of local government operations and equipment
- Reduce reliance on fossil fuels
- Ensure electricity is coming from renewable, affordable sources
- Implement an outreach and engagement program

A prioritized list of actions that address the above targets are included in this document. These specific actions will allow the Village of Clayton

Assessing Progress

In order to assess progress, the municipality, in coordination with the Climate Smart Communities (CSC) Task Force, will annually review the Government Operations Climate Action Plan (CAP) and suggest which prioritized actions are appropriate for that year's budget.

The Government Operations Climate Action Plan will be updated every 5 years. This will allow the Village of Clayton to assess progress on this current plan, re-prioritize actions, and adjust to the Village's changing budget and new funding opportunities. The Climate Smart Communities (CSC) Task Force will be responsible for tracking metrics and plan progression.

Financing

It is important for the Village of Clayton to make the transition to lower emissions in a financially responsible way. The municipal government will fund the priorities of this Climate Action Plan by pursuing NYSERDA's Clean Energy Communities program grants, Climate Smart Communities (CSC) grants, and work with regional organizations, such as the Adirondack North Country Association (ANCA), to pursue other grant opportunities.

Previous and Current Climate Initiatives

Climate change is not always separate from the other challenges faced by the Village of Clayton, such as budget constraints, water quality, infrastructure maintenance, or community health. Climate change is a result of the land use, transportation and energy use decisions that have evolved over generations and requires coordinated solutions. The Village of Clayton has already begun to reduce greenhouse gas (GHG) emissions, both from government operations and the community as a whole, through a variety of plans, programs, policies and actions. With these

milestones completed and a Climate Action Plan to guide the way, the Village of Clayton is better positioned to implement initiatives to reduce energy use, costs, and GHG emissions for local government operations.

Actions completed to date:

- Cobra head streetlights converted to LED
- Decorative streetlights converted to LED
- Benchmarking municipal building energy use
- Electric landscaping equipment
- Heat pump installation: Two (2) heat pumps were installed in the Municipal Building, one (1) heat pump was installed in the WWTP
- Fleet Inventory: The fleet inventory will allow the local government to evaluate ways to improve efficiency of the fleet

Local Government GHG Inventory Assessment

A local government operations GHG inventory was conducted for the Village of Clayton for the baseline year 2024. The local government GHG emissions inventory accounts for emissions associated with facilities, vehicles, and other processes that are owned and operated by the Village of Clayton. Determining a baseline of emissions for Village operations allows for more targeted planning on reducing emissions. The Village's emissions were organized into five categories: administration facilities, vehicle fleet, streetlights and traffic signals, wastewater facilities, and water delivery facilities. Administration facilities includes municipal buildings, parks, and other miscellaneous accounts. The vehicle fleet includes all diesel and gasoline usage. Streetlights and traffic signals includes all outdoor lighting that is not directly associated with a building. Wastewater facilities includes the energy use at the wastewater treatment plant, the fugitive emissions from processing wastewater, and any pumps used to move wastewater. Water delivery facilities includes water treatment and pumps to deliver water.

Figure 1 and Table 1 show Village of Clayton's government operations emissions broken down by sector, Figure 2 shows emissions broken down by energy source.

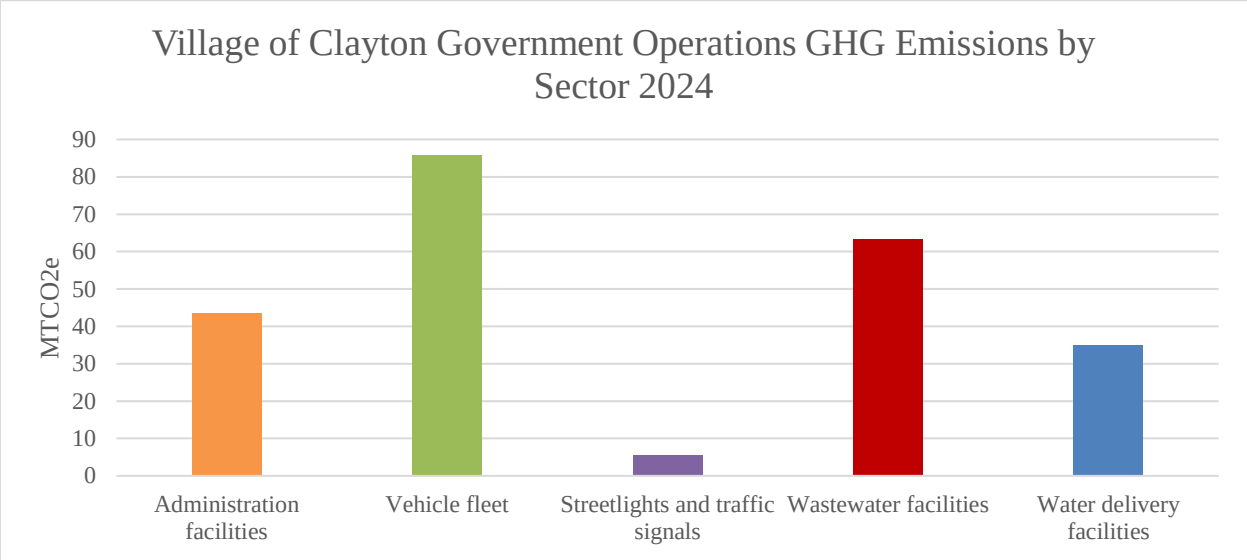

Figure 1: Village of Clayton Government Operations GHG Emissions by Sector 2024

Year: 2024	GHG Emissions (MTCO2e)	Percentage
All Municipal Operations	232.9	100%
Administration Facilities	43.6	19%
Vehicle Fleet	85.7	37%
Streetlights and traffic signals	5.5	2%
Wastewater facilities	63.1	27%
Water delivery facilities	35	15%

Table 1: Village of Clayton Government Operations GHG Emissions by Sector for 2024 in MTCO2e and Percentage

The Village of Clayton's vehicle fleet is the highest source of emissions and accounts for 37% of emissions. The next highest emitters are the wastewater facilities and the administration facilities.

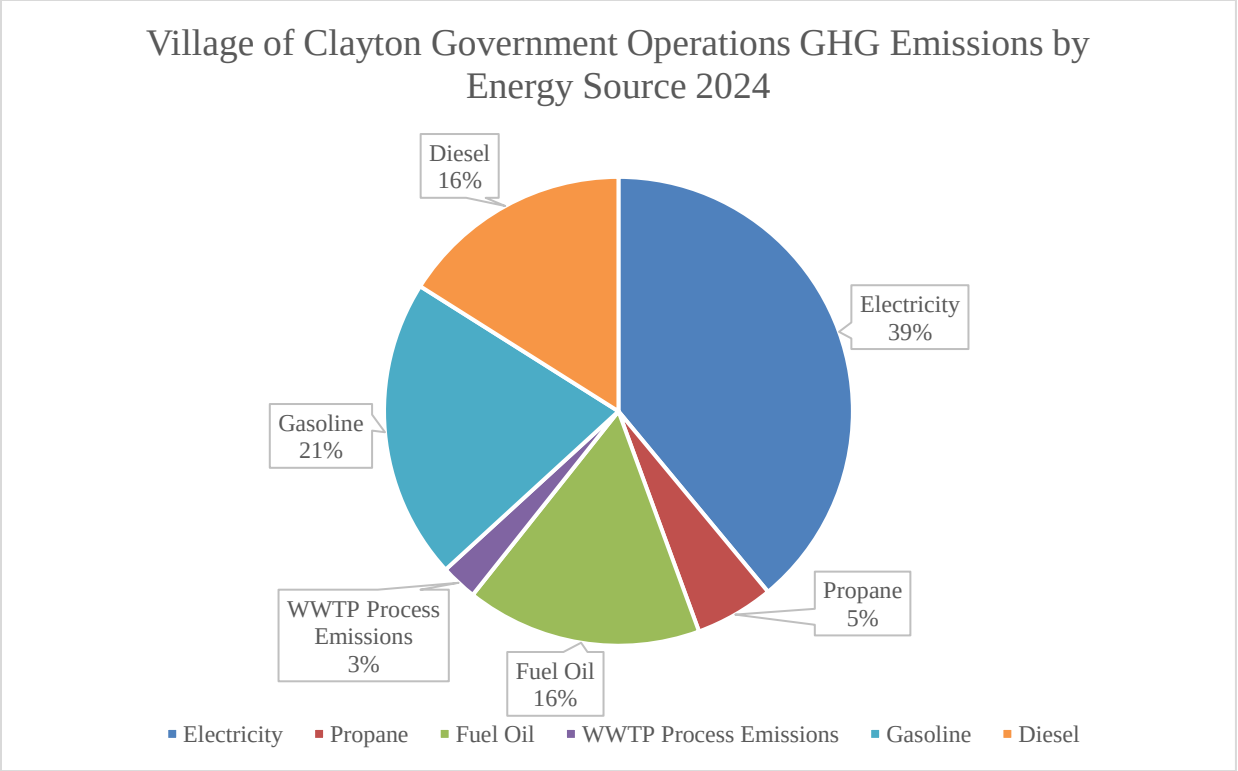

Figure 2: Village of Clayton Government Operations GHG Emissions by Energy Source 2024

39% of the Village's emissions come from electricity usage. If the Village transitions to 100% renewable sources of electricity for municipal accounts, there will be a significant impact on greenhouse gas emissions from government operations. Transitioning the vehicle fleet to zero-emission vehicles will also be an important area for the Village to focus on as diesel and gasoline account for 37% of overall emissions.

Prioritized Actions to Achieve Emission Reduction Goals

The following table (Table 2) includes prioritized actions the Village of Clayton and the Climate Smart Communities (CSC) Task Force have identified to reduce emissions, improve efficiency, and save taxpayer dollars. Time ranges are estimated and may change based on funding available and technology advances. Each action has a sector and/or energy source associated with it. More detailed descriptions of each action are listed below the table.

Action	Time Range	Sector/Energy Source
GHG tracking system	Short-term	All
Hold a green vendor fair	Short-term, Medium-term, Long-term	All
Conduct a feasibility study for renewable energy installations	Short-term, Medium-term, Long-term	All
Establish a financing mechanism for energy efficiency and renewable energy projects	Long-term	All
Develop & adopt a comprehensive plan with sustainability elements	Long-term	All
Community Distributed Generation	Short-term	Administration Facilities, Electricity
Building energy audits	Short-term, Medium-term	Administration Facilities, Propane, Fuel Oil
Install heat pumps	Short-term, Medium-term, Long-term	Administration Facilities, Propane, Fuel Oil
Install a geothermal system	Long-term	Administration Facilities, Electricity, Propane, Fuel Oil
Upgrade building envelope in municipal buildings	Medium-term	Administration Facilities, Electricity, Propane, Fuel Oil
Adopt a green building standard for municipal buildings/facilities	Medium-term	Administration Facilities, Electricity, Propane, Fuel Oil

Solar array on municipal buildings	Medium-term, Long-term	Electricity
Reduce number of outdoor lighting fixtures	Short-term, Medium-term	Streetlights and traffic signals, Electricity
Electric lawn care equipment	Short-term, Medium-term	Diesel, Gasoline
NY Rural Water Assessment & Potential Implementation	Short-term, Medium-term	Water Delivery, Water Treatment
Annually update fleet inventory	Short-term	Vehicle Fleet, Diesel, Gasoline
Adopt a vehicle fleet efficiency policy	Short-term	Vehicle Fleet, Diesel, Gasoline
Right-size the municipal fleet	Medium-term, Long-term	Vehicle Fleet, Diesel, Gasoline
Anti-idling policy for municipal fleet	Short-term, Medium-term	Vehicle Fleet, Diesel, Gasoline
Diesel usage assessment	Short-term	Vehicle Fleet, Diesel
Install EV infrastructure	Medium-term, Long-term	Vehicle Fleet, Diesel, Gasoline
Zero-emission vehicles	Medium-term	Vehicle Fleet, Diesel, Gasoline

Table 2: Climate Action Plan Actions Summary

- **Implement a greenhouse gas (GHG) tracking system**
    - Energy use data will be tracked and updated regularly by the Village deputy clerk and CSC Task Force
- **Hold a green vendor fair**
- **Conduct a feasibility study for renewable energy installations**
    - A feasibility study will give the Village a better understanding of which renewable energy options are feasible and financially beneficial for municipal use
- **Establish a financing mechanism for energy efficiency and renewable energy projects**
    - Investing the money saved by energy efficiency and renewable energy projects to progress the Climate Action Plan goals
- **Develop & adopt a comprehensive plan with sustainability elements**

    - Incorporating sustainability goals into comprehensive plan for future planning and funding opportunities
- **Sign municipal electric accounts up for Community Distributed Generation (CDG)**
    - Community distributed generation (CDG) is an alternative to owning renewable energy (such as rooftop solar). Often, CDG subscriptions provide discounts to municipal accounts that save taxpayer money. Northern Power & Light is an example of a CDG company that serves National Grid territory.
- **Energy Audits on municipal buildings**
    - Assessments of building energy use will provide information on which upgrades will provide the most energy savings and payback periods for upgrades.
- **Install heat pumps to replace fossil fuel heating in municipal buildings**
    - Heat pumps are a highly efficient way to heat and cool buildings as an alternative to on-site fossil fuel combustion.
- **Install a geothermal system**
    - Geothermal systems are a highly efficient way to heat and cool buildings as an alternative to on-site fossil fuel combustion.
- **Upgrade building envelope in municipal buildings**
    - Increase energy efficiency of municipal buildings.
- **Adopt a green building standard for municipal buildings/facilities**
    - Ensure all future building is sustainable and energy efficient.
- **Look for opportunities to put solar arrays on municipal buildings**
    - As the Village of Clayton begins to transition away from depending on fossil fuel usage, it will be important to ensure an affordable and renewable source of electricity.
- **Reduce number of outdoor lighting fixtures**
    - Will reduce electricity usage and promote dark skies goals.
- **Purchase electric lawn care equipment**
    - This will reduce the amount of gasoline and diesel use for municipal operations.
- **NY Rural Water Association Energy Assessments of Water Delivery and Water Treatment Services**
    - Free service for rural municipalities to increase energy efficiency and reduce cost of water deliver and water treatment services

- **Annually update Fleet Inventory to prepare for transition to zero-emissions vehicles**
    - Regularly reviewing the fleet inventory will allow the local government to make informed decisions about fleet purchasing to increase efficiency.
- **Adopt a fleet efficiency policy**
    - Creates a guideline for departments to purchase vehicles to achieve reduction goals
- **Right-size the municipal fleet**

    - Ensure that the vehicles with the smallest emissions are being utilized when possible
- **Adopt an anti-idling policy for municipal fleet**
    - Reduce emissions from unnecessary vehicle usage
- **Conduct an in-depth analysis of diesel usage across government operations to find areas for improvement**
    - Diesel usage accounts for the majority of GHG emissions for the Village of Clayton. Gaining a better understanding of how diesel is used for municipal operations will give the local government a better idea of how to reduce it.
- **Install EV infrastructure**
    - Charging stations can be utilized by government vehicles and be used by the public
- **Zero-emission Vehicles Purchases**
    - When financially and logistically feasible, purchasing zero-emission vehicles for government operations

Conclusion

The Village of Clayton's Climate Action Plan has set an ambitious goal to achieve 40% percent reduction of greenhouse gas (GHG) emissions from 2024 levels by 2030. Using the greenhouse gas emission inventory as a foundation, this Climate Action Plan has outlined a collection of measures and policies that reduce GHG emissions. It will be particularly important to focus on finding renewable and affordable sources of electricity as electricity accounts for 39% of emissions. In addition, converting the vehicle fleet to zero-emission vehicles and prioritizing efficiency in the vehicle fleet will have a significant impact on the Village's emissions. With the Climate Action Plan as our guide, the Village of Clayton can take effective action in climate change mitigation as we implement municipal and community-wide programs, projects and policies.