

Village of Skaneateles Climate Action Plan: Executive Summary



The Village of Skaneateles strives to preserve and sustain its beautiful, historic and livable environment for many generations to come. Sustainability means meeting present needs without compromising the ability of future generations to meet their needs.

The Climate Action Plan (CAP) serves to inform the residents of the numerous potential impacts that climate and the environment will exert on the Skaneateles community. It provides information that will allow the Village and its residents to be prepared and meet the challenge together. Future concerns are addressed in the CAP from three perspectives: increased energy efficiency, reduction of emissions and the increased use of renewable resources. To view the final CAP document, visit https://www.dropbox.com/s/447bsgivrli4v/Skaneateles_ClimateActionPlan.pdf.

The CAP also includes a technical appendix document, or Appendix A: Action Strategy Summary Document. This document includes detailed information about each emissions reduction strategy, including strategy descriptions, calculations and sourcing information, potential cost savings, potential emissions reductions, payback periods, co-benefits of implementing each strategy, and case-study examples of where each strategy has been implemented successfully elsewhere.

Starting with the Village's use of energy resources, which are more easily defined and measured, programs have begun to protect and conserve these resources. This was demonstrated in the planning and construction of the new Village Hall, which is the first net-zero energy municipal building in New York State. It is the aim of the Village to reduce emissions from municipal operations by 50% by the year 2030, and the Village is well on its way to this goal. The Village has already seen a 5.8% reduction in emissions from the 2010 baseline year due to the Village Hall retrofit.

The CAP also describes strategies that may be useful in reducing the Skaneateles community's emissions from residential, commercial, industrial, and transportation sectors. The Village's goal is to reduce community emissions by 20% by the year 2030.

The CAP includes charts and graphs to explain what can be accomplished and the benefits of actions once they are implemented. A blueprint for climate adaptability by the Village of Skaneateles is also explained in an outline at the end of the CAP document.

The CAP leads the way to a successful coalition of all the community's sectors towards building a better future for the residents of Skaneateles. The Skaneateles community is encouraged to utilize the recommendations in the CAP to continue to take steps to reduce energy use, encourage sustainable development, and reduce emissions.



Greenhouse Gas (GHG) Inventory Summary: 2010 Baseline Year

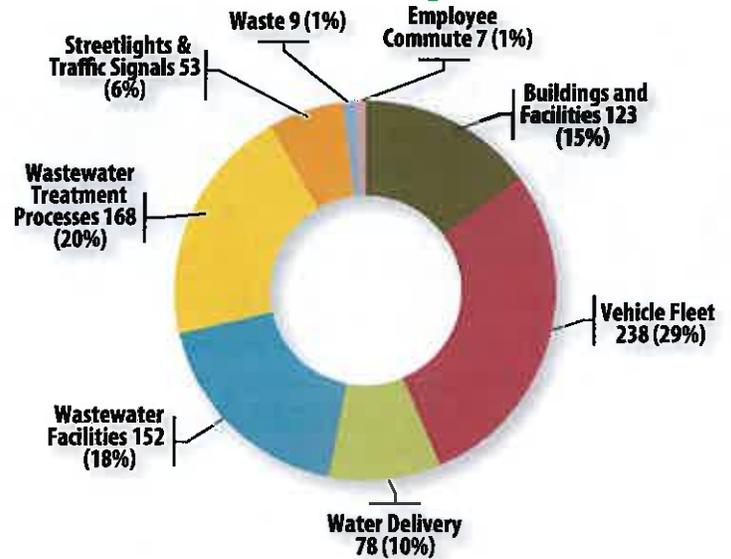
What is a GHG Inventory?

The first step in climate action planning is to compile a GHG inventory. A GHG emissions inventory is an audit of activities that contribute to the release of emissions, such as burning fossil fuels for energy. For Skaneateles' GHG inventory, energy use and waste generation information for the 2010 year was gathered and methods of calculation explained in the Local Government Operations Protocol and the U.S. Community Operations Protocol developed by ICLEI-Local Governments for Sustainability were utilized to generate emissions figures.

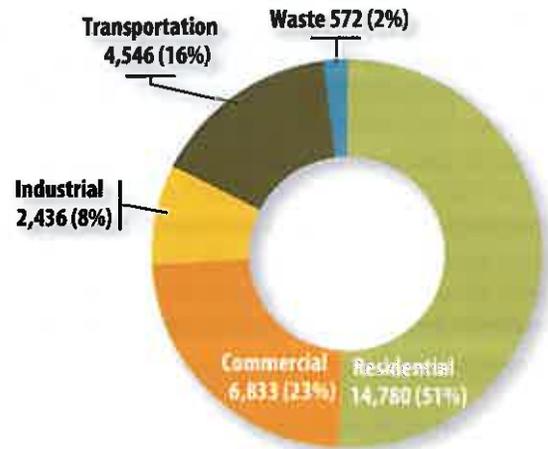
Data regarding municipal and community-wide energy use and waste production were entered into ICLEI's Clean Air Climate Protection (CACP) software, which then produced emissions figures. Data from the inventory can be used to guide policy decisions and energy improvements, inform sustainability projects, and build public support for broader sustainability initiatives in the Village of Skaneateles.

Skaneateles' GHG inventory reported emissions of 828 MTCO₂e from municipal operations and 29,167 MTCO₂e from the community at large in the 2010 baseline year. The GHG inventory serves as the baseline for the CAP.

2010 Municipal Operations Emissions (828 MTCO₂e)



2010 Community Emissions (29,167 MTCO₂e)



Did You Know...?

MTCO₂e stands for metric tons of carbon dioxide equivalent. MTCO₂e is the metric used to describe emissions from greenhouse gases such as carbon dioxide, methane, and nitrous oxide. Because these gases have different global warming potentials, they are converted and aggregated into a single metric, MTCO₂e, in order to explain GHG emissions information.

1 MTCO₂e =

-  CO₂ emissions from 112 gallons of gasoline consumed
-  CO₂ emissions from 2.3 barrels of oil consumed
-  CO₂ emissions from 41.7 propane cylinders used for home barbeques
-  Carbon sequestered by almost 1 acre of U.S. forests in one year

Climate Action Plan (CAP) Summary

How was the Plan developed?

Skaneateles' Climate Action Plan was developed by an advisory committee made up of Skaneateles community members Kathryn Carlson, Sue Dove, Dorothea Hughes, Bob Lotkowitz, Jim Lanning, Peter Moffa, Mary Sennett, and Carol Stokes-Cawley. The committee was provided technical assistance by the Central New York Regional Planning and Development Board (CNY RPDB). CNY RPDB provided information and suggestions to the advisory committee as to which energy efficiency strategies would be most successful in the village based on calculations regarding potential emissions reductions, cost savings, energy savings, and payback period. For more information on how the strategies were developed, including calculations of monetary savings, payback periods, assumptions and references, refer to **Appendix A: Action Strategy Summary Document**, found at <https://www.dropbox.com/s/tkbt9bod30dix7m/Skaneateles%20CAP%20summary%20final.docx>. To view the final CAP document, visit https://www.dropbox.com/s/447bsgivrli4v/Skaneateles_ClimateActionPlan.pdf.

How will the Plan be implemented?

In order to implement the strategies in the CAP and achieve Skaneateles' sustainability goals, the Plan should be implemented by the Village with the help of relevant groups and stakeholders, such as Sustainable Skaneateles, the Village Chamber, CNY RPDB, and others.

Municipal Operations Analysis

2010 Emissions: **828** MTCO_{2e}

Estimated emissions reductions by 2030 from strategy implementation: **408** MTCO_{2e}

Total estimated cost of implementation: **\$1,330,019**

Total estimated annual cost savings: **\$85,432**

Estimated payback period: **15.57** years

Municipal Operations Strategies Included in CAP

- Install LED light bulbs
- Energy efficiency retrofits of existing facilities
- Limit idling of heavy duty vehicles
- Geothermal heat pump
- Anaerobic digester at WWTP
- Conversion to biodiesel
- Solar PV installations
- Install LED streetlights
- Solar heating for YMCA swimming pool
- Power Down at Night Policy
- Limit idling of light duty vehicles
- Expand bicycling paths/facilities
- High efficiency water heaters
- Increase bus ridership
- Conversion to electric vehicles

Community Analysis

2010 Emissions: **29,167** MTCO_{2e}

Estimated emissions reductions by 2030 from strategy implementation: **2,531** MTCO_{2e}

Total estimated cost of implementation: **\$7,394,262**

Total estimated annual cost savings: **\$440,842**

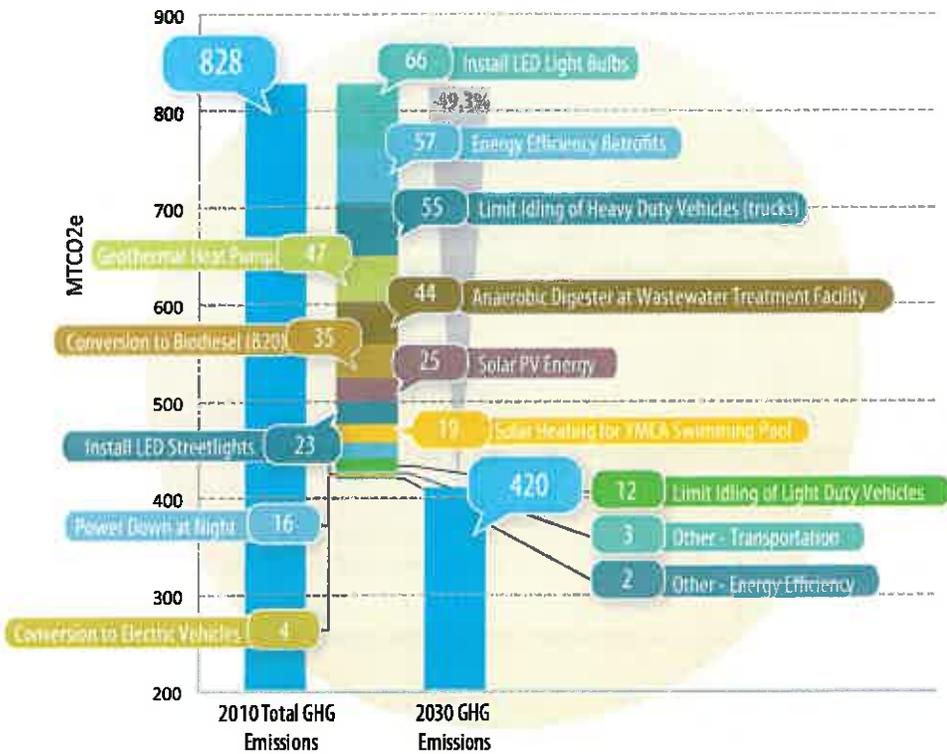
Estimated payback period: **16.77** years

Community Strategies Included in CAP

- Conversion to electric vehicles
- Energy efficiency education: businesses
- Geothermal heat pump
- Incentives for hybrid vehicles
- Conversion to biodiesel
- High efficiency water heaters
- Residential solar PV installations
- Install electric vehicle charging facilities
- Power Down at Night Policy
- Promote carpooling and vanpooling
- Commercial solar PV installations
- Expand bicycling paths/facilities
- Limit idling of school buses
- Safe Routes to School Program
- Increase urban forest
- Increase bus ridership
- Limit idling of heavy duty vehicles
- Install LED light bulbs
- Energy efficiency retrofits of existing facilities

Estimated Emissions Reductions by Strategy

Municipal Operations Strategies



The graph to the left shows Skaneateles' 2010 baseline municipal emissions as recorded by the GHG inventory report, potential reductions due to suggested strategies, and potential emissions in 2030 should each of the suggested strategies be implemented. It is estimated that there will be a 49.3% reduction in municipal emissions if all suggested strategies are implemented. For more detailed information about these strategies, please refer to the CAP and Appendix A: Action Strategy Summary Document.

Community Strategies

The graph to the right shows Skaneateles' 2010 baseline community emissions as recorded by the GHG inventory report, potential reductions due to suggested strategies, and potential emissions in 2030 should each of the suggested strategies be implemented. It is estimated that there will be an 8.7% reduction in community emissions if all suggested community reduction strategies are implemented. For more detailed information about these strategies, please refer to the CAP and Appendix A: Action Strategy Summary Document.

