City of Oneida Climate Action Plan: Executive Summary

The City of Oneida strives to preserve and sustain its beautiful, historic and livable environment for many generations to come. The Climate Action Plan (CAP) serves to inform residents of the numerous potential impacts that climate and the environment will exert on the Oneida community. It provides information that will allow the City and its residents to be prepared and meet the challenge together. Future concerns are addressed in the Plan from three perspectives: increased energy efficiency, reduction of emissions and the increased use of renewable resources. **To view the final CAP document, visit http://oneidacity.com/.**

The Plan 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.

The City's emissions are broken down into two categories: 1) emissions from municipal operations and 2) emissions from the community-at-large. The Plan includes strategies that could help reduce emissions from both municipal operations and the community. The City's goal is to reduce municipal emissions by 20% by the year 2025 and to reduce community emissions by 15% by the year 2025.

The Plan 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 City of Oneida is also explained in an outline at the end of the CAP document.

The Plan leads the way to a successful coalition of all the community's sectors towards building a better future for the residents of Oneida. The Oneida 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.

Climate Smart Communities New York State

Central New York Regional Planning & Development Board

Central New York climate change innovation program

Greenhouse Gas (GHG) Inventory Summary: 2010 Baseline Year

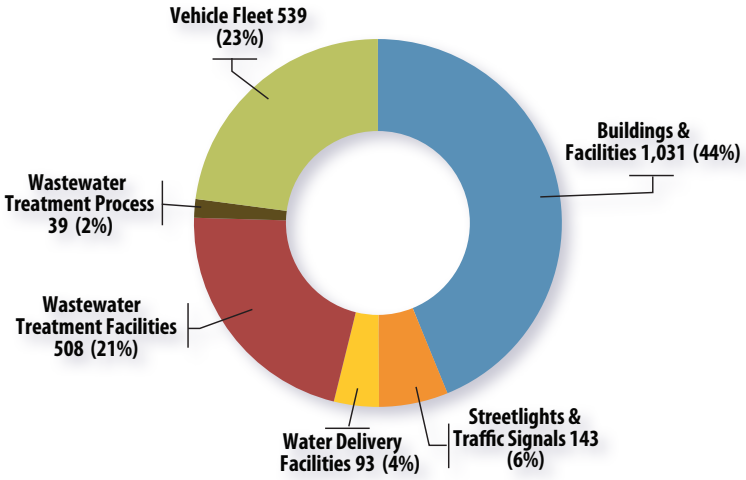
What is a GHG Inventory?

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 Oneida's 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.

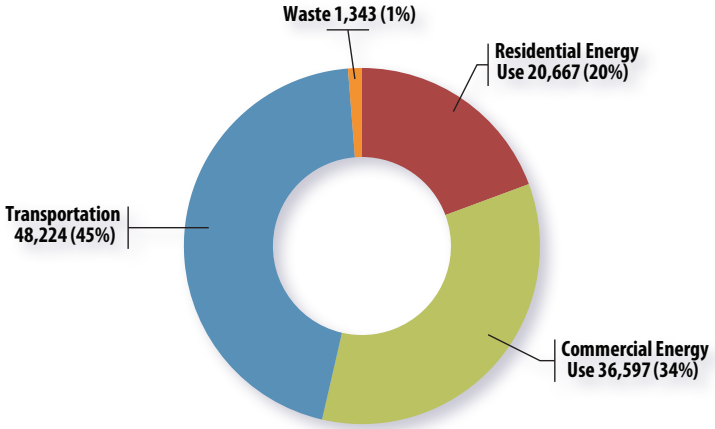
Data regarding municipal and community-wide energy use and waste production were entered into ICLEI's Clean Air Climate Protection (CACP) software, which then produced emissions figures. Data from the inventory can be used to guide policy decisions and energy improvements, inform sustainability projects,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

Oneida's GHG inventory reported emissions of 2,353 $MTCO_2e$ from municipal operations and 106,831 $MTCO_2e$ from the community at large in the 2010 baseline year. The GHG inventory serves as the baseline for the Climate Action Plan.

2010 Municipal Operations Emissions (2,353 $MTCO_2e$)



2010 Community Emissions (106,831 $MTCO_2e$)



1 $MTCO_2e$ =

- CO_2 emissions from 112 gallons of gasoline consumed
- CO_2 emissions from 2.3 barrels of oil consumed
- CO_2 emissions from 41.7 propane cylinders used for home barbeques
- Carbon sequestered by almost 1 acre of U.S. forests in one year

Did You Know...?

$MTCO_2e$ stands for metric tons of carbon dioxide equivalent. $MTCO_2e$ 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, $MTCO_2e$, in order to explain GHG emissions information.

Climate Action Plan Summary

How was the Plan developed?

Oneida's Climate Action Plan was developed by an advisory committee made up of Jon Rauscher, City Engineer; Charlie Stewart, Intern for the City; Margaret Milman Barris, FPM Remediations; Alan Cohen, Utica Schools and City resident; Scott Ingmire, Madison County; and David Wright, Oneida City School. 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 City 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 http://oneidacity.com/. To view the final Climate Action Plan document, please also visit http://oneidacity.com/.**

How will the Plan be implemented?

In order to implement the strategies in the Climate Action Plan and achieve Oneida's sustainability goals, the Plan should be implemented by the City with the help of relevant groups and stakeholders, such as the advisory committee, CNY RPDB, and others.

Municipal Operations Analysis

2010 Emissions: **2,353** $MTCO_2e$

Estimated emissions reductions by 2025 from strategy implementation: **530** $MTCO_2e$

Total estimated cost of implementation: **$1,098,211**

Total estimated annual cost savings: **$229,331**

Estimated payback period: **4.79** years

Municipal Operations Strategies Included in Climate Action Plan

- Install solar PV
- Conversion to hybrid vehicles
- Lighting occupancy sensors
- Conversion to electric vehicles
- Police on bicycles
- Install reflective roofing
- Removal of ornamental streetlights
- Power-down at night policy
- Improve water pumping efficiency
- Micro-hydro electricity

CommunityAnalysis

2010 Emissions: **106,831** $MTCO_2e$

Estimated emissions reductions by 2025 from strategy implementation: **13,469** $MTCO_2e$

Total estimated cost of implementation: **$19,521,024**

Total estimated annual cost savings: **$5,037,212**

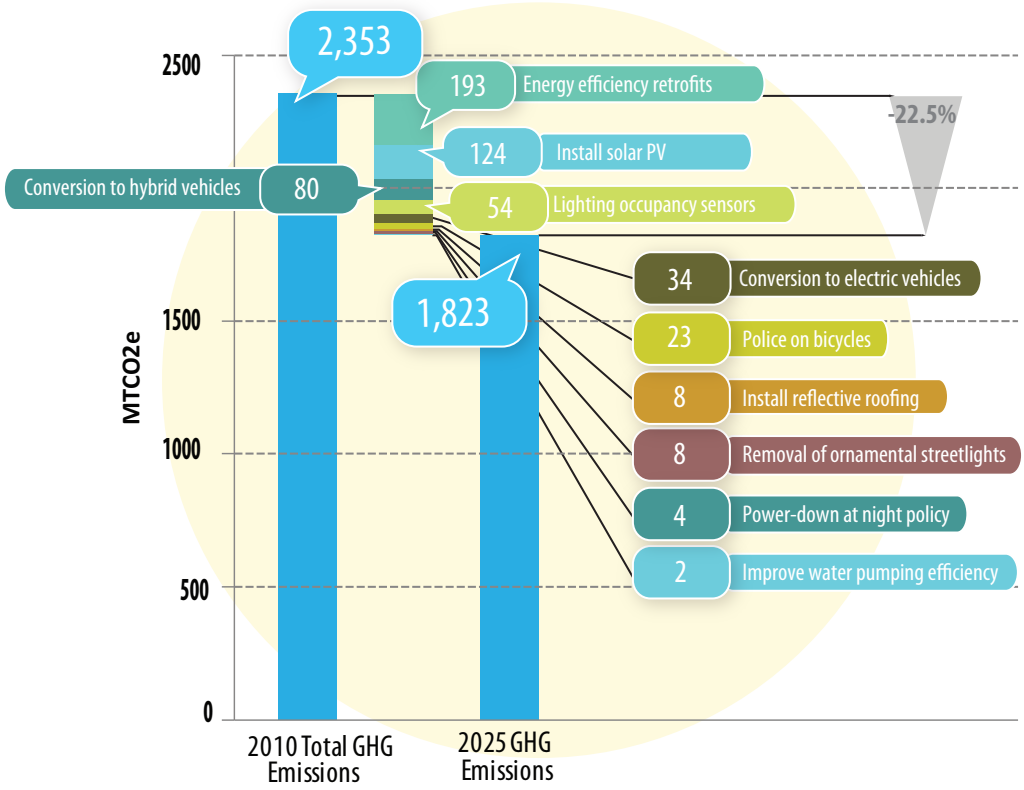
Estimated payback period: **3.82** years

Community Strategies Included in Climate Action Plan

- Conversion to electric vehicles
- Expand bicycling paths/facilities
- Conversion to hybrid vehicles
- Encourage telecommuting
- Increase walking-friendly environments
- Weatherization of homes
- Energy efficiency education: Residents
- Residential solar PV
- Commercial solar PV
- Promote carpooling/vanpooling
- Tree planting
- Geothermal heat pump
- LED light bulbs
- Loans for energy efficiency retrofits
- Energy efficiency education: Businesses
- Power-down at night policy
- Lighting occupancy sensors
- Commercial retrofits of existing facilities
- Electric vehicle charging facilities
- Increase bus ridership
- Organics composting

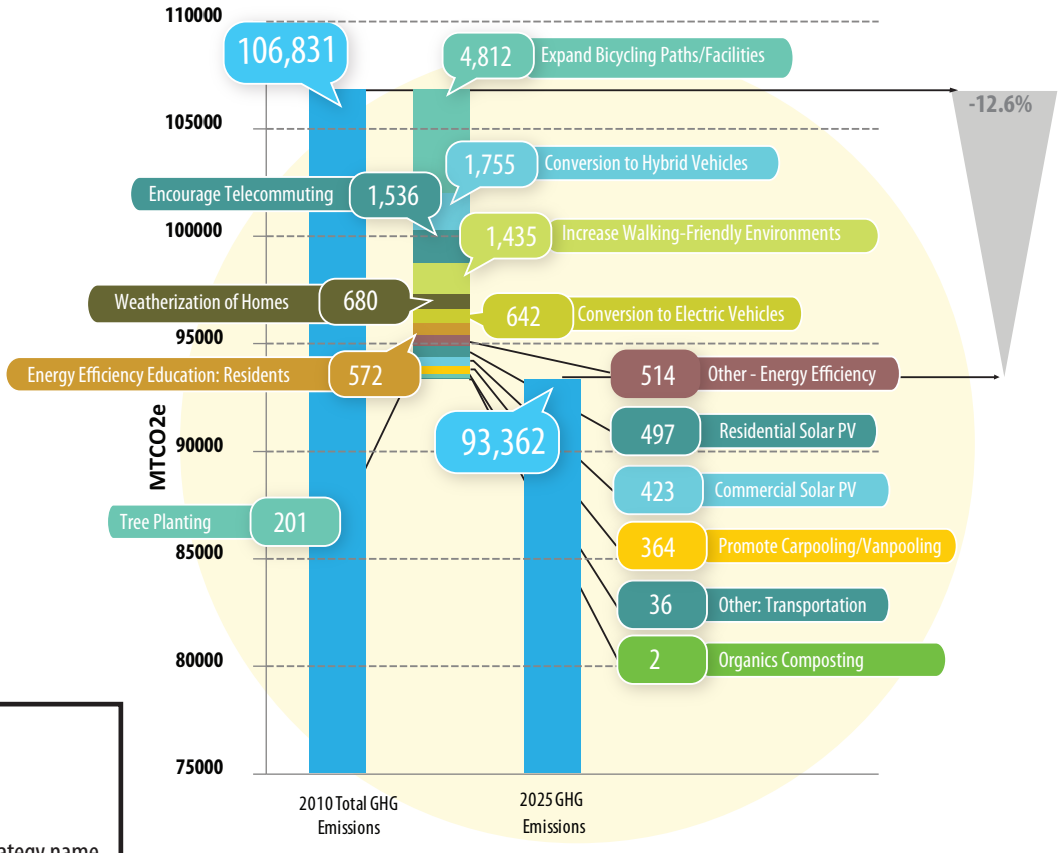
Estimated Emissions Reductions by Strategy

Municipal Operations Strategies



The graph to the left shows Oneida's 2010 baseline municipal emissions as recorded by the GHG inventory report, potential reductions due to suggested strategies, and potential emissions in 2025 should each of the suggested strategies be implemented. It is estimated that there will be a 22.5% reduction in municipal emissions if all suggested strategies are implemented. For more detailed information about these strategies, please refer to the Climate Action Plan and Appendix A: Action Strategy Summary Document.

Community Strategies



The graph to the right shows Oneida's 2010 baseline community emissions as recorded by the GHG inventory report, potential reductions due to suggested strategies, and potential emissions in 2025 should each of the suggested strategies be implemented. It is estimated that there will be a 12.6% reduction in community emissions if all suggested community reduction strategies are implemented. For more detailed information about these strategies, please refer to the Climate Action Plan and Appendix A: Action Strategy Summary Document.