



AUSTERLITZ TIME TO SHINE

CLIMATE ACTION PLAN FOR GOVERNMENT OPERATIONS

TO ACHIEVE NET ZERO BY 2050



PREPARED BY
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ON BEHALF OF
THE AUSTERLITZ CLIMATE COMMITTEE



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INTRODUCTION

The Town of Austerlitz' municipal Climate Action Plan (CAP) is a strategy document that sets goals and outlines a set of initiatives that reduce greenhouse gas (GHG) emissions resulting from government operations. This is an aspirational document, prepared by the Austerlitz Climate Committee, which expresses the motivations for the committee's work as well as identifies priority actions that will result in meeting the reduction targets defined therein. It should be noted that the town is not beholden to the strategy laid out here; this roadmap is subject to adjustment according to local developments, available resources, and evolving technologies. A Government Operations CAP is one small part of a broader strategy to both mitigate and adapt to climate change in our local context. Further pursuits beyond this plan will include a Climate Vulnerability Study and Adaptation Plan, a Community Greenhouse Gas Inventory and Community Climate Action Plan, Sustainability Elements for Comprehensive Planning, a Natural Resources Inventory and other pledge elements within the NYS Climate Smart Communities program.

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EXECUTIVE SUMMARY

THINK GLOBALLY, ACT LOCALLY

A Climate Action Plan (CAP), as defined by the Department of Environmental Conservation, “is a strategy document that sets goals and outlines a set of initiatives that reduce greenhouse gas (GHG) emissions” (*Climate Smart Communities, PE2 Action: Government Operations Climate Action Plan*). This Climate Action Plan for the Town of Austerlitz will review the baseline established by the Town’s municipal GHG inventory, establish goals to reduce emissions from municipal operations and present a strategy for implementation moving forward. The overall goal is to mitigate emissions that have adverse effects on climate change, as well as pursue cost-effective and energy-saving strategies.

No longer is there any doubt that human-caused climate change is real and that its impacts - ecosystem collapse, species extinction, devastating weather events, loss of coastline, displacement of peoples due to extreme heat, drought, and famine - are being felt worldwide. The question now is how can we act and how quickly.

We in New York are already experiencing the impacts of climate change ourselves and New York State (NYS) has made climate mitigation one of the top priorities for the state. Given the overwhelming consensus that greenhouse gas (GHG) emissions are causing the climate to change, carbon drawdown is a major component of the global strategy to reverse these alarming trends. Every individual and community has a role to play in this undertaking. If local communities can work together to each reduce greenhouse gas emissions (GHG) in New York State, we can maximize our impact on our planet and lead the way for other states to follow suit. That is why 357 local governments have adopted the NYS Climate Smart Communities (CSC) Pledge to reduce GHGs.

By choosing to act now, the Town of Austerlitz 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). In alignment with the state's goals, the Town of Austerlitz intends to achieve an overall GHG emission reduction target of 40% percent below baseline 2019 by 2030 and an 85% reduction by 2040. The following plan will outline the progress Austerlitz is proud to have made to date, define a baseline of the town's current GHG emissions, establish goals to reduce those emissions, and present a strategy for implementation of the plan with further ideas for additional initiatives moving forward.

PLANNING PROCESS

The Austerlitz Climate Committee took the following steps, as outlined by DEC in CSC action description

1. Determined leadership and CAP framework
2. Developed a communication and engagement strategy
3. Completed and analyzed baseline assessments
4. Identified goals and reduction targets in two primary sectors
5. Identified existing and potential initiatives to meet targets
6. Prioritized initiatives in order of feasibility
7. Created a plan for implementing the chosen initiatives
8. Establish metrics
9. Produced this plan for Climate Committee feedback and a 1-month public comment period during which the plan was made publicly available
10. Updated the Austerlitz Town Board throughout the process and presented the plan to the Austerlitz Town Board for adoption

Outreach Statement

As this plan is a potential springboard for a community-wide Climate Action Plan, the Austerlitz Climate Committee is committed to informing and involving the broadest spectrum of our constituent base in Austerlitz in these efforts. The Austerlitz Climate Committee defined an outreach period between the Town Board's March to June 2023 meetings during which the CAP was circulated internally to town officials and stakeholders and other committees. The CAP was then revised according to feedback for a first reading at the Town Board's May meeting at which it would be approved to be uploaded onto the town website for public comment for a one month period before being voted on by the Town Board at its June meeting. The Climate Committee then reached out via numerous means to notify public that this plan would be available on the Town's website and at the Town Hall for a 1 month review period prior to its inclusion on the docket for a vote at the following Town Board meeting.

First Steps

The Town of Austerlitz completed a greenhouse gas (GHG) emissions inventory to identify the largest sectors of emissions. Based on the GHG baseline analysis and input from community stakeholders, focus areas were developed to streamline and cross-coordinate actions between the local government and the community to reduce emissions across these sectors. The Town of Austerlitz Climate Action Plan creates a framework for documenting and coordinating efforts by providing information about each initiative's estimated implementation timeframe and associated costs. These focus areas include a list of actions that will help to achieve the goals and reduction targets established during the climate action planning process.

BACKGROUND

The town of Austerlitz encompasses a rich and varied landscape that inspired writer Edna St. Vincent Millay and continues to engender reverence for nature amongst its current-day residents. The Town Board of Austerlitz, in its stewardship of the community's incredible natural resources, has a history of valuing sustainability and climate consciousness in its policymaking.

The Town of Austerlitz has made significant progress in reducing its greenhouse gas emissions without a formal plan yet in place. In 2018, the town installed an EV charging station as its first Climate Smart action and impetus for further momentum. The same year generous benefactor gifted the Town of Austerlitz with a historic building to be restored as its new town hall which the town took full advantage of in its sustainability journey.

Renovating an existing building in and of itself constituted savings in energy use, material fabrication, trucking, and waste hauling; but no stone was left unturned in the efficiency upgrades built into the new town hall. These included the most efficient HVAC system available on the market, two LG v5 air-source heat pumps to heat and cool the building, entirely electric, and able to be controlled individually in each room in accordance with their use. In addition, the installation of closed-cell foam insulation enabled a higher degree of air tightness along with energy-efficient windows and storms. The plumbing system was designed with a highly efficient water heater and specified with high-efficiency water consumption, with flow restrictors on toilets and faucets. Contractors also specified materials that were locally sourced and used a high degree of recycled material fabricated with processes that encourage the recycling of waste products. Lastly, all interior and exterior lighting installed was LED.

In August of 2017, The Town of Austerlitz unanimously voted to adopt the Climate Smart Communities pledge, and in 2019 Austerlitz became a Designated NYSERDA Clean Energy Community with technical support from Jill Henck of CDRPC. In April 2020, the Town established the Austerlitz Climate Committee, which focuses on the DEC Climate Smart Communities program and the NYSERDA Clean Energy Communities program. The committee currently includes Jere Wrightsman, Chair, who serves on the Austerlitz Town Board, Tim Stalker, who serves on the Columbia County Planning Board, Cara Humphrey, Austerlitz's representative on the Columbia County Environmental Management Council since March 2019 and Vice President of Sales at Neighborhood Sun (a community solar company), Christopher Schober, Town Board member, and Paige Ruane, Co-Founder of Partners for Climate Action and Co-Director of the Local Champions program.

Climate Smart Communities Bronze Certification was achieved due to the efforts of former Committee Chair, Greg Vogler, and DeeAnn Veeder, previous Sustainability Coordinator. The committee continues to be supported by a Sustainability Coordinator, currently, Kathryn Beilke who compiled this report in consultation with Haley Balcanoff, Sustainability Planner at the Capital District Regional Planning Commission.

The committee made significant progress in its CSC actions towards Bronze by adopting a Unified Solar Permit, creating a hazard mitigation plan, installing an electric car charging station in the town hall parking lot, and spearheading a Solarize Austerlitz campaign in which the response from residents was overwhelming! The committee also planted trees, conducted planning to right-size culverts, and initiated a composting campaign for residents. But perhaps the most significant achievement of the committee as it relates to this report is the Greenhouse Gas Emissions inventory for government operations which informs the forecasting and reduction targets laid out herein.

In 2018, the Town installed an EV charging station in the town hall parking lot which was the impetus for further energy reduction projects. On November 9, 2020, the Town's onsite remote meter solar array was turned on and operational. The size of the array is 22.12 kW STC, with 56 modules, and is located on the Town's Highway Garage. The Town purchased the array with help from a NYSERDA rebate. In 2021, the town converted 100% of all streetlights in its jurisdiction to LED.

At the time of this writing, the Climate Committee is currently hard at work pursuing a Natural Resources Inventory, Sustainability Elements for the Town's Comprehensive Planning process, a NYSERDA Community Clean Heating and Cooling Campaign. It is hoped that the passage of this CAP will be the impetus to energize a community-wide greenhouse gas inventory and provide a platform for engagement in a Community Climate Action Plan.

The culmination of Austerlitz' actions to date has resulted in the recognition of the town as a Bronze Certified Climate Smart Community. Austerlitz is also leading amongst Capital Region municipalities in NYSERDA's Clean Energy Communities program with 3500 points on the regional leaderboard.

Austerlitz is a historic town that is making significant strides in securing a better future for the next generation. We have a lot to be proud of, we have a lot to be hopeful for. This is truly our time to shine as we look forward to achieving a 10% reduction in GHG by the end of 2023!

ANALYSIS OF BASELINE GHG EMISSIONS

A local government operations GHG Inventory was conducted for the Town of Austerlitz using 2019 as the baseline year. The assessment was completed in partnership with the Capital District Planning Commission and NYSERDA, and accounts for emissions associated with facilities, vehicles, and other processes that are owned and operated by the Town. The below chart outlines the baseline for Scope 1 (direct GHG emissions: propane, heating oil) and Scope 2 (indirect GHG emissions: purchased electricity) GHG emissions from government-owned buildings and facilities. The total baseline measurement of GHG emissions for the year 2019 is 202.96 Metric Tons of Carbon Dioxide emissions (MTCO₂e).

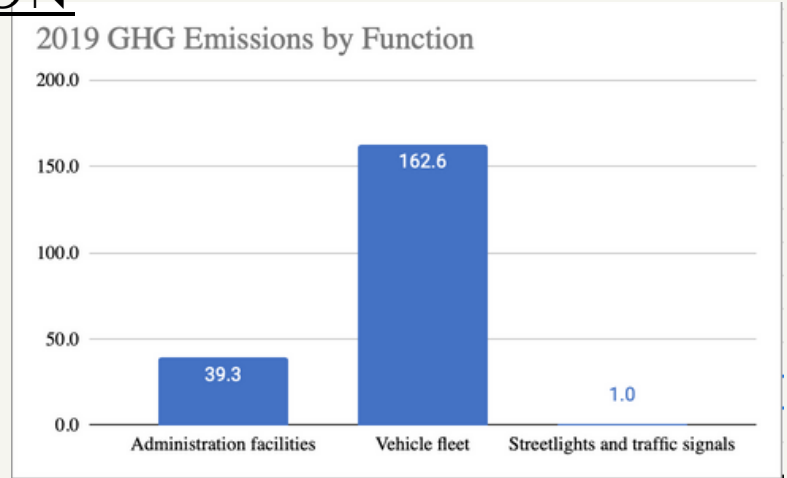
			Consumption (KWh and Gallons)			GHG Emissions (MTCO ₂ e)				TOTAL
			Electricity (kWh)	Propane (gal)	Heating Oil (gal)	Electricity	Propane	Heating Oil	Diesel/ Gasoline	
	Facility / Group Name	ICLEI Category	2019	2019	2019	2019	2019	2019		
	Town Hall	Administration Facilities	45,034			4.8	-	-		4.8
	Town Park	Streetlights and traffic signals	223			0.02	-	-		0.02
	Highway Garage	Administration Facilities	11,608		2612.30	1.23	-	26.62		27.85
	Old Town Garage	Administration Facilities	21			0.00	-	-		0.00
	Street Lighting #1	Streetlights and traffic signals	9,215			.97	-	-		.97
	Austerlitz History Center (Old Town Hall)	Administration Facilities	4,812	1,072		0.51	6.16	-		6.67
	Town Fleet	Vehicles							162.65	162.65
	TOTALS		70,892	1,071.70	2612.30	7.53	6.16	26.62	162.65	202.96

Austerlitz has four municipal buildings with a total of 15,384 square feet. In addition, the Town is responsible for the Town Park on Route 203 and has 19 streetlights within its jurisdiction. The Town government produced 202.96 MTCO₂e of greenhouse gas emissions in 2019. Municipal facilities account for 19.4% of GHG emissions, or 39.3 MTCO₂e. As the above chart shows, direct fossil fuel combustion (Scope 1) is responsible for 83% of greenhouse gas emissions in municipal facilities and 96.3% of all emissions. This fact informs us that the town's most immediate possibilities to significantly cut emissions is considering alternatives to onsite fossil-fuel combustion and replacing these systems with electric heating and cooling systems that can eventually be run off of clean power such as solar. However, the most significant emissions in Austerlitz result from vehicle diesel combustion to operate the town's fleet.

ANALYSIS OF BASELINE GHG EMISSIONS, CON'T

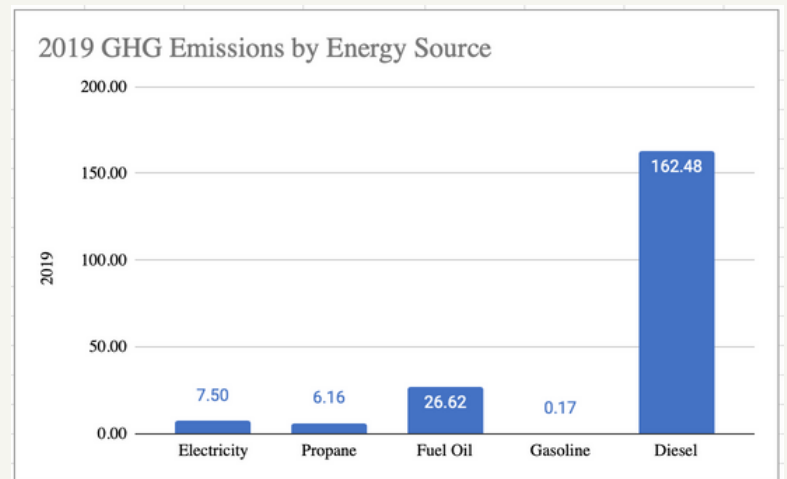
EMISSIONS BY FUNCTION

The largest contribution (80%) of the Town's greenhouse gas emissions was fuel for town vehicles at 162.6 MTCO₂e, followed by emissions from facilities at 39.3 MTCO₂e.



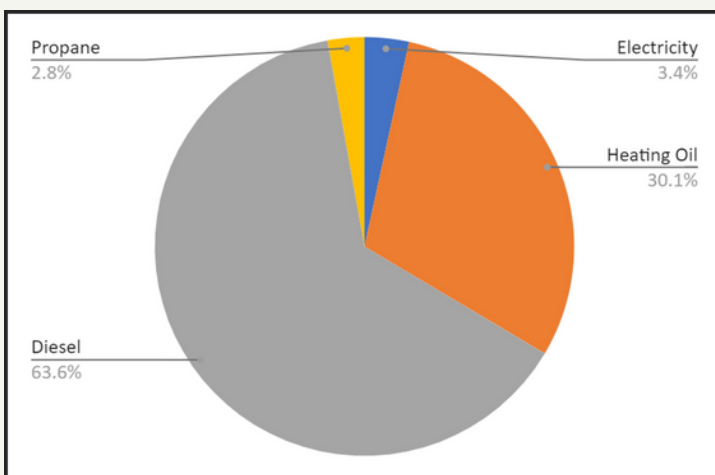
EMISSIONS BY TYPE

Electricity accounted for just .04% of the Town's GHG emissions, whereas direct combustion (source 1) from propane heating for the History Center (6.16 MTCO₂) and heating oil for the Town Highway Garage (26.62 MTCO₂) accounted for 16% of all emissions.



EMISSIONS AND COSTS BY ENERGY SOURCE

In terms of costs, the Town spent \$51,188.29 on energy usage in 2019. Below is breakdown of these costs by source:



Electricity	\$10,861.77 (21.2%)
Heating Oil	\$5,621.79 (11%)
Diesel	\$33,520.76 (65.5%)
Propane	\$1,183.97 (2.3%)
All Energy Sources	\$51,188.29

REDUCTION TARGETS

The Governor of New York signed the state's Climate Leadership and Community Protection Act (CLCPA) into law in July of 2019. Among the goals of the Act were to decrease the state's greenhouse gas emissions to 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050; achieve net-zero emissions economy-wide by 2050.

OVERALL GOALS

ELIMINATE ONSITE FOSSIL FUEL COMBUSTION
40% REDUCTION IN GHG EMISSIONS BY 2030
85% REDUCTION BY 2040

SHORT-TERM TARGETS

CUT GOVERNMENT EMISSIONS 10% BY JANUARY 1, 2024.
CUT GOVERNMENT EMISSIONS 20% BY JANUARY 1, 2025

INTERIM GOALS

PROGRESS REPORTING TARGETS
BEGIN DEVELOPING MORE AGGRESSIVE TARGETS
BASED ON EVOLVING TECHNOLOGY.

DEVELOP MID-RANGE TARGET FOR 2030
SUBMIT A PLAN TO ACHIEVE THE MID-RANGE TARGET
BY JANUARY 1, 2024.

LONG-TERM TARGET

OPERATE THE AUSTERLITZ GOVERNMENT WITH NET-ZERO
EMISSIONS PRIOR TO 2050 IN ADVANCE ALIGNMENT WITH THE
STATE'S CLCPA.

In alignment with the state's goals, the Town of Austerlitz aspires to remove all legacy onsite fossil-fuel combustion infrastructure for municipal buildings and achieving an overall GHG emission reduction target of 40% percent below baseline 2019 by 2030 and an 85% reduction by 2040. This Climate Action Plan is a critical component of a comprehensive approach to reducing the Town of Austerlitz' emissions. These reduction targets can be met if each focus area implements the list of recommended actions to achieve the reduction target set for that sector.

TIMELINE OF PROGRESS TO DATE

2018

Prior to the GHG Inventory, in 2018, the Town completed a complete renovation of the Town Hall, complete with two heat pumps, interior LED lighting, high efficiency ventilating system, high efficient water heating with low water consumption toilets and flow restrictors on faucets, closed cell foam insulation, advanced wall framing, energy efficient windows, locally-sourced building materials, and high-recycled material count.

2018

Town Installs EV charging station available for public use in Town Hall parking lot

2019

Town of Austerlitz adopts Greenhouse Gas Inventory that constitutes the baseline GHG emissions levels for this plan

2020

The Town's onsite remote meter solar array was activated on November 9, 2020. The size of the array is 22.12 kW STC, with 56 modules, and is located on the Town's Highway Garage. The Town purchased the array with help from a NYSERDA rebate. The Town uses SolarEdge to monitor the energy production of the system. In 2021, the system produced 24.74 MWh of energy. Comparative Energy generated in 2021 and 2022 is shown in the chart below:

2021

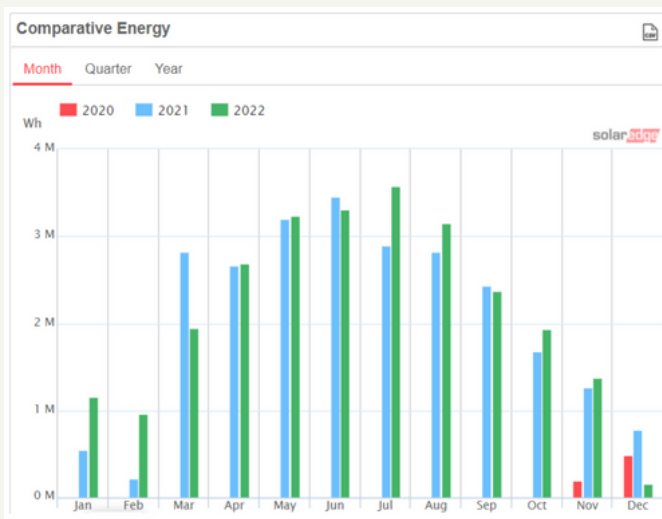
Town converts 100% of all street lights in its jurisdiction to LED.

2022

Energy Audit of Highway Garage is conducted to help identify energy efficiency and emissions reduction measures.

2023

Town adopts Government Operations Climate Action Plan committing to further reductions and associated actions to achieve targets laid out herein



REDUCTION TARGETS PER SECTOR

TRANSPORTATION

OVERALL TARGETS

Short Term Reduction Target: 25% GHG Reduction by 2030

Goals and Prioritization:

1. Annual update of fleet inventory and re-assessment of operations
2. Implementing anti-Idling measures and fleet rightsizing
3. Clean Vehicle Procurement Policy in place by 2024
4. Add EV Charging Infrastructure to Highway Garage by 2025
5. Electrify all gasoline-powered lawn equipment by 2025
6. Purchase and installation of battery storage/generator by 2027
7. 20% of the fleet to be transitioned to electric, fuel cell, or hybrid diesel-electric vehicles by 2028

Long Term Target: 85% GHG Reduction by 2040

Goals and Prioritization:

7. By 2050, remaining diesel vehicles either decommissioned, retrofitted for alternative fuel, or replaced with non-fossil fuel powered vehicles as new technologies come to market
8. Net Zero Emissions by 2050

VEHICLE FLEET

Austerlitz maintains a 9 vehicle fleet of primarily heavy duty vehicles whose emissions constitute 80% of the municipality's GHGs. Thus, the fleet is a focal point and high priority of this plan. There are several measures that the Town of Austerlitz can take to reduce GHGs from engine combustion in municipal-owned vehicles. The Climate Committee in coordination with the Town Highway Supervisor will work together to continually re-assess fleet and operations of the entire fleet and take incremental steps to reduce emissions from town vehicles.

Prioritization of Implementation

Annually Updated Fleet Inventory

The Town Highway Department currently has an inventory template on file with make/year/model, fuel type and mpg rating for all town-owned vehicles. Keeping this updated annually is the first step to identifying vehicles which may no longer serve their intended purpose.

REDUCTION TARGETS PER SECTOR

TRANSPORTATION

Reassessment of Operations

The Highway Department is already working to identify optimal routes, salt alternatives, driver training, and better fuel tracking to reduce diesel use and overall emissions from transportation. The Climate Committee is also in communication with the Highway Supervisor as to how the department could reduce the number of trips made, especially long-distance trips to Albany for parts. This reassessment will inform the evaluation and right-sizing of the future vehicle fleet.

Current Fleet Inventory for the Town of Austerlitz

Equipment Type:	Year	Year purchased	Make/Model	Condition	Fuel	Drivetrain type	MPG	Class	Vehicle function	GVW	OVER 8,5kGVWR	Cost	Notes	Disposition
TRUCK #1	2021	2022	Dodge RAM	New	diesel	4WD	8.80	MEDIUM	PLOW		YES		10' PLOW	97 km
TRUCK #2	1995	2014	INTERNATIONAL 2574	POOR	diesel	2-WHEEL		HEAVY	DUMP, PLOW, WING	45,000	YES	\$ 20,000.00	11' PLOW & WING	121 km
TRUCK #3	2003		INTERNATIONAL 2574	USED	diesel	2-WHEEL		HEAVY	DUMP, PLOW, WING	45,000	YES	\$ 60,000.00	11' PLOW & WING	84 km
TRUCK #4	2009		INTERNATIONAL 7500	USED	diesel	2-WHEEL	3.90	HEAVY	DUMP, PLOW	41,780	YES	\$ 83,163.00	11' PLOW	74 km
TRUCK #5	2020	2019	MACK GR42F	GOOD	diesel	2-WHEEL	3.90	HEAVY	DUMP, PLOW	45,300	YES	\$ 200,614.00	11' PLOW	13 km
TRUCK #6	1987	1987	INTERNATIONAL 2574	USED	diesel	TANDEM		HEAVY	DUMP		YES	\$ 64,040.00		417 km
TRUCK #7	2020	2019	MACK GR42F	GOOD	diesel	2-WHEEL	3.80	HEAVY	DUMP, PLOW	45,300	YES	\$ 200,614.00	11' PLOW	12 km
TRUCK #8	2002	2002	INTERNATIONAL 2674	USED	diesel	TANDEM		HEAVY	DUMP, PLOW, WING	66,000	YES	\$ 114,141.00	11' PLOW & WING	46 km
TRUCK #9	2016	2016	FORD F550	USED	diesel	4WD	6.80	MEDIUM	DUMP, PLOW	19,500	YES	\$ 20,000.00	10' PLOW	81 km



REDUCTION TARGETS PER SECTOR

TRANSPORTATION

Fleet Right-Sizing

The current fleet is mixed in terms of age however in terms of fuel efficiency, it is reported by the Highway Supervisor that newer does not necessarily mean more efficient; while newer models may feature particulate filters for emissions, older trucks can often get better fuel mileage and better reliability. Also, it is important to note that measuring efficiency in terms of miles per gallon (mpg), is not always appropriate as it relates to vehicles used for the fleet's purposes; gallons per hour is a more appropriate metric as often the usage of heavy duty trucks will operate at a low speed and cover very little ground. A snow plow for example could run 2-6 mpg depending on the day. Lastly, switching to smaller trucks has cost the town more due to having to make more trips. With this criteria in mind, the Town Highway Department is currently identifying vehicles that may be replaced in the next 2-5 years, with 20% conversion of fleet to EV by 2028.

Anti-Idling Measures

Most town vehicles at the Highway Department have an anti-idling feature already built in wherein after 10 minutes the vehicle automatically shuts down. In some cases, idling is necessary for the functioning of a vehicle as a diesel engine often needs to idle to cool the engine to reduce wear on the engine. With these provisions in mind, the town of Austerlitz will consider policies ranging from a non-binding resolution to an enforced anti-idling law. See Appendix a. for proposal as a part of this plan.

Green Vehicle Procurement Policy

Discussions are currently underway between the Highway Department, Climate Committee, and Town Board to get an early start on tracking the availability of heavy-duty electric vehicles or plug-in hybrids. The Highway Department may also consider biodiesel as a potential fuel source if a hybrid is procured. It is recommended that the town codify its intentions to only procure only EVs or hybrids when replacing a diesel vehicle in the current fleet. See appendix b. for proposal as a part of this plan.

EV Charging Infrastructure

The first step in making it possible to build a green fleet is in the installation of EV charging stations at the Town Garage using funds from the Utility MakeReady Incentive, the DEC's Municipal Zero-emission Vehicle (ZEV) Infrastructure Grant Program, or from grants through NYSERDA's Clean Energy Communities program.

REDUCTION TARGETS PER SECTOR

TRANSPORTATION

Purchase and Installation of Battery Storage/Generator

Exploration of battery storage through NYSERDA's Energy Storage program is recommended with the intent to install backup support for the electrification of the municipal built environment and transportation infrastructure and to provide energy backup in the event of a power outage.

Vehicle Replacements

Diesel is the main contributor (64%) of the Town of Austerlitz's GHG Emissions. Heavy-duty vehicles, such as plows, are used during extreme weather events. As more highly efficient hybrid and electric vehicles come to the market each year, the Town can assess its fleet inventory and purchase or lease EV, hybrid or alternative fuel vehicles. According to the Highway Superintendent, two vehicles are almost ready for replacement.

As of 2023, there are several funding opportunities available to assist with short-term implementation:

- NY Green Bank's Tenet EV Auto Loan platform to help finance EVs and EV infrastructure in NYS; will also fund the deployment of other types of clean transportation projects in NYS
- NYS DEC ZEV Rebate Program (opportunity opens April 2023)
- Drive Clean Rebate
- NYSEG Fleet Assessment Services and Medium/Heavy Duty EV Pilot Program
- Joint Utilities EV Make-Ready Program
- NY Truck Voucher Incentive Program – pays up to \$220,000 of the incremental cost of purchasing a heavy-duty EV above the costs of purchasing a conventional diesel vehicle; models include garbage trucks, delivery vans, tractors, and more
- Ongoing participation in NYSERDA's Clean Energy Communities program will earn the Town additional grants that can also be used toward the purchase of an EV

Lawn Equipment

In the ongoing maintenance of town-owned lands, Austerlitz currently uses gasoline-powered chainsaws, leaf blowers, weed whackers, and lawnmowers. As a part of this plan, the climate committee will investigate electrification of all gas-powered tools and have already, in consultation with the Highway Department, considered particular models and sources of funding for these.

REDUCTION TARGETS PER SECTOR

MUNICIPAL FACILITIES

OVERALL TARGETS

Short Term Target: 5% GHG Reduction by 2030

Goals and Prioritization:

1. Insulation improvements made to Highway Garage
2. Propane heating system at Town History Center converted to mini-split (2.8%)
3. All remaining facilities (highway garage and history center) interior and exterior lighting upgraded to LEDs

Long Term Target: 35% GHG Reduction by 2040

Goals and Prioritization:

1. HVAC System upgrade at Highway Garage
2. Scope 1 emissions eliminated (30%)

TOWN HIGHWAY GARAGE

The Town Highway Department is the town's most significant source of emissions not only in the vehicle fleet but in the facility itself. The building generates 13.7% of the town's GHG emissions and 70.8% of all municipal facilities' GHG emissions. Thus, the town highway garage is the major focus within this category.

Insulation Improvements

The town highway garage is a 20-year-old steel building with fiberglass insulation. One of the lowest-hanging fruits in improving the efficiency of the Town Highway Garage is preventing warm air from escaping through leaks in the envelope itself. While necessary overhead doors are difficult to seal, the building also features exhaust pipes hanging from the roof for venting vehicle stacks. In the winter, these have been left uncapped which cools the building significantly. In the winter of 2022, these were capped as a part of the climate action planning process.

Energy Audit

In October of 2022, the town received a grant from NYSERDA to conduct an energy audit of the garage to determine the best reduction solution for the facility. The following recommendations were assessed:

REDUCTION TARGETS PER SECTOR MUNICIPAL FACILITIES

Interior and Exterior Lighting Retrofit to LED

The interior lighting consists of fluorescent and metal halide high bay fixtures. Each zone has low hourly usage per discussions with the site staff. The recommendation is metal halide high bay and mezzanine fixtures are not directly wired, rather they plug into receptacles. Replace these with new LED fixtures with the equivalent lumens and appropriate color temperature. The remaining fluorescent fixtures can be re-lamped with direct wire 4' LED tubes. The estimated savings to undertake this measure are \$1057 annually.

The exterior lighting is all 175 W mercury vapor wall-packs except for one LED in the front entrance that was replaced by the Supervisor. The recommendation is to replace them with LED equivalent wall-packs that are Energy Star labeled or listed with the Design Lights Consortium (DLC). The estimated annual savings to undertake this measure is \$445 annually.

Building Electrification, Boiler Replacement

The highway garage is currently heated by a fuel-oil-powered water boiler and hydronic radiant flooring system. The cast iron boiler is a high-efficiency unit with a six-pass coil system. Domestic hot water in the garage runs off the boiler in the winter and is switched to electric in the summer.

It is suggested that when the boiler is no longer functional, the Town look into an electric boiler or heat pump-powered water boiler for the existing radiant flooring system. This technology is still forthcoming however in order to meet a target of 85% reduction in GHGs by 2040, it would need to be replaced with a more efficient unit within 17 years.

TOWN HISTORY CENTER

The town history center, located adjacent to the new town hall is the site of the former town hall. The building is 965 sq. feet and is currently only operational for a few hours on Saturday when the museum is open to the public. The building is heated with propane which is especially wasteful considering the limited functionality of the building. This system will be replaced with an alternative non-fossil fuel heating and cooling system. To prevent leaks the town intends to tighten the envelope with the installation of new windows.

CONCLUSIONS AND FURTHER CONSIDERATIONS

CARBON SEQUESTRATION AND NATURE-BASED SOLUTIONS

As of 2023, the Town is developing a Comprehensive Plan and Natural Resource Inventory (NRI) to help identify and address priority natural areas within the jurisdiction. An NRI identifies and describes natural resources at the local scale, helping to create a strong foundation for future proactive planning, informed decision-making, conservation of priority habitats, and insight into areas that will be affected by climate change, such as flood-prone areas. For this reason, the NRI provides an invaluable resource for comprehensive land use and conservation planning.

Due to increasing extreme weather patterns, it is important for a community to carefully plan development and future land use to prevent unnecessary disturbance to natural areas. Between 2000 and 2050, the northeast is expected to have an overall decline in forest and cropland by 7% and 6%, respectively (USDA). Adaptation strategies, such as smart growth principles and green infrastructure, will help reduce damage to municipal infrastructure and relieve the burden on the highway department and fleet, thus reducing GHG emissions. These planning elements can be further explored in a future Community Climate Action Plan. Additionally, maintaining tree cover near municipal facilities will reduce cooling load and subsequent associated GHG emissions.

In 2023, the Town is taking part in a Vulnerability Assessment and Adaptation and Resilience Planning process that will help inform future risks and strategies. Steps will then be taken to determine how GHG Emissions from municipal operations could be reduced by implementing adaptation strategies.

MOVING FORWARD

This Climate Action Plan provides a roadmap to take action and make better energy choices that will make the Town of Austerlitz more stable and resilient in the future. Climate change mitigation may be a challenge, but it is also an opportunity to take action and make better energy choices that will make the Town of Austerlitz more stable and resilient in the future.

CONCLUSIONS AND FURTHER CONSIDERATIONS

This Climate Action Plan is a resource to municipal officials and all community stakeholders by offering a framework and resources needed to implement actions that will help the Town of Austerlitz achieve the goals established for the future of its government operations. The Town of Austerlitz's Climate Action Plan has set an ambitious goal to achieve 40% percent reduction of greenhouse gas (GHG) emissions by 2030 and an 85% reduction by 2040. 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. To maximize success in implementing this plan, detailed information about the leadership and resources needed to take action is provided and initiatives are ranked according to our local priorities and feasibility. With the Climate Action Plan as a guide, Austerlitz can take effective action in climate change mitigation as we implement municipal projects and policies.

METHODS FOR ASSESSING PROGRESS

Since the Town's vehicle fleet is the greatest emitter of greenhouse gases, the Town intends to update and evaluate the fleet inventory and operations of the Highway Garage. Additionally, every three to five years, the Town of Austerlitz intends to update its Greenhouse Gas Inventory to assess progress in meeting the goals outlined in this Climate Action Plan.

Adjusting Local Strategy if GHG Targets are Surpassed or Not Fulfilled

As the Town updates its Greenhouse Gas Inventory periodically, municipal officials and stakeholder committees will be able to determine how to adjust the Climate Action Plan should targets be surpassed or not fulfilled. As such, the Town of Austerlitz is approaching this Climate Action Plan as a "living document" that can be periodically updated, allowing municipal officials to adjust the targets and strategy as new technologies are available and improvements to municipal operations are made. The Town plans to ensure alignment with the goals outlined in the NYS Climate Leadership and Community Protection Act.

CONCLUSIONS AND FURTHER CONSIDERATIONS

ONGOING WORK

Making strides in greenhouse gas reductions are one small part of Austerlitz' strategy to both mitigate and adapt to climate change in our local context. A government operations climate action plan is simply "doing our part," within our sphere of control to protect the planet we all share. Further pursuits beyond this plan will include a Climate Vulnerability Study and Adaptation Plan, a Community Greenhouse Gas Inventory and Community Climate Action Plan, Sustainability Elements for Comprehensive Planning, a Natural Resources Inventory and other pledge elements within the NYS Climate Smart Communities program.

LAND ACKNOWLEDGEMENT

It is with humility that the Austerlitz Climate Committee acknowledges the original stewards of this land, the Mohican people who hunted on these lands and fished these waters long ago. An Algonquian-speaking tribe, the Mohican people identified by the place they inhabited, which they called Muh-he-ka-neew (meaning "people of the continually flowing waters.")

To honor this land, we must honor the crucial role of indigenous knowledge plays in recovering a reciprocal relationship with the earth.