Town of New Lisbon

Climate Action Plan

2021

Prepared by:
The New Lisbon Climate Smart Communities Task Force
December 2021

1. Leadership and CAP Framework

New York State's climate act (CLCPA) targets include a reduction in greenhouse gas (GHG) emissions of 40 percent by 2030 and 85 percent by 2050 (below 1990 levels). To facilitate the town's efforts to do its part in the much larger effort to achieve these goals, the town has taken the NYS Climate Smart Communities (CSC) pledge and is working towards bronze certification. For a brief history of the town's participation in the (CSC) program, the reader is directed to the town's first Progress Report which was issued on or about April 22, 2021 and is available on the town's Climate Smart Communities Task Force website.¹

This Climate Action Plan (CAP) outlines measures and policies that the town intends to employ to reduce the town's government operations GHG emissions.

The CAP is based on the town's GHG Emissions Inventory, which is also available on the CSC Task Force website.

The CAP was developed by the Climate Smart Communities Task Force in consultation with the Town Board, the Town Clerk, and the Town Highway Superintendent and with public outreach.

2. Communication and Engagement Strategy; Public Outreach

The Task Force issues verbal reports to the Town Board and to the public at each of the Town Board's monthly meetings. These reports have included the information in the

_

¹ <u>http://townofnewlisbon.com/csc/</u>

Progress Report as well as the additional proposals and plans that are laid out in this CAP.

A written draft of the CAP was delivered to the Town Board in advance of its November 2021 meeting, and the CSC Task Force Chairperson, Nancy Martin-Mathewson, presented it to the board and the public at that meeting.

Thereafter, the draft was revised and then released to the public with a thirty day period for public comment via the Task Force's website and Facebook page, the town's website and Facebook page, and by email directly to stake holders in and outside of the town.² Immediately prior to the December 2021 town board meeting, a public information session was held at the Town Hall to present the CAP to the public and to invite public comment.

Immediately following the public information session, appropriate revisions were made by the Town Board after which a resolution to accept the CAP was made, seconded, and approved.

3. Baseline assessments

A copy of the town's Government Operations Greenhouse Gas Emissions Inventory ("GHG Inventory") is available on the Task Force website. The total GHG emissions from government operations in the Base Year (2020) was estimated at 151 MT CO2e.

As shown in the following table, to meet the CLCPA targets, the town will need to reduce total GHG emissions by 61 MT CO2e by 2030 and by 128 MT CO2e by 2050.

² The email distribution included approximately 50 residential households in addition to the members of the Town Board, the Town Clerk, the Town Highway Superintendent, and the Town Assessor and also included the Otsego County Conservation Association, Otsego 2000, Assemblyman John Salka, State Senator Peter Oberacker, and Congressman Antonio Delgado.

CLCPA GHG Emissions Reduction Goals

	Stationary	/ Sources	
	MT CO2e (2020)	MT CO2e (2030)	MT CO2e (2050)
Town Hall (heating oil & propane)	12	7	2
Highway (heating oil & propane)	18	11	3
	Mobile S	Sources	
	MT CO2e (2020)	MT CO2e (2030)	MT CO2e (2050)
Diesel	105	63	16
Gasoline	13	8	2
	Elect	ricity	
	MT CO2e (est. 1990)	MT CO2e (2030)	MT CO2e (2050)
Town Hall	0.6	0.4	0.1
Highway	1.4	0.8	0.2
Street Lights	0.5	0.3	0.1
TOTAL	151	90	23

The obvious primary target for GHG emissions reductions is consumption of diesel.

Smaller gains can be made by targeting gasoline consumption and heating fuel for town buildings.

Electricity is a relatively minor contributor of emissions and is expected to be reduced by external infrastructure improvements that over time convert grid-sourced electricity generation from fossil fuels to renewables. In any event, electricity consumption by streetlights was addressed by conversion to LED streetlights in June, 2020 and electricity consumption by town buildings can be addressed by conversion to local PV generation.

4. GHG Emissions Reduction Goals and Initiatives

2022-2023

In the short run (2022-2023), the Task Force recognizes that there is some low hanging fruit that will yield an immediate albeit modest reductions in fossil fuels consumption and hence GHG emissions. These include things like replacing existing thermostats with programmable thermostats and replacing the hot water heaters in the town hall and highway garage with on demand tankless hot water heaters.

2030

Consumption goals planned for 2030 and 2050 will be more challenging. As explained in the GHG Inventory, approximately 70% of our diesel consumption is by our plow/dump trucks and approximately and nearly 100% of our gasoline consumption is by our pickup trucks.

The town will continue to monitor developments with respect to dump/plow trucks with capabilities that are similar to the trucks in our current fleet.³ It appears that such trucks may be on the horizon.⁴

Subject to availability, the town aspires to replace both of its pickup trucks and at least one of its four dump/plow trucks with EV's by 2030. Replacing one of our four dump/plow trucks and both of our pickup trucks with all-electric vehicles by 2030 will reduce GHG emissions from diesel by about 18 MT CO2e⁵ and will reduce GHG emissions

³ Our two most recently purchased trucks are Freightliner 114SD (DD13) dump trucks, 6x4, 470 hp, GVW 92,000 lbs.

⁴ For example, the Freightliner eCascadia, Mack LR Electric, and Kenworth T680E, although they are not heavy duty dump/plow trucks with the hydraulics needed to operate plows, the horsepower, torque, carrying capacity, and range specifications appear to be adequate if they can be achieved under the conditions and environment of town use. Charging time and electrical transmission infrastructure also need to be improved. See, https://freightliner.com/trucks/cascadia/specifications/, https://kenworth.com/media/qrbigowa/2020-act-expo-single-page-flyer-09-18-2020.pdf, and https://www.macktrucks.com/trucks/lr-series/lr-electric/specs/.

⁵ 70% * 105 MT CO2e * .25 fleet = 18 MT CO2e.

from gasoline by about 13 MT CO2e for a total reduction of about 31 MT CO2e, bringing us about halfway towards our 2030 total reduction target.

The town is presently planning to construct a new town highway garage, which will be significantly more energy efficient than the existing garage. The town expects to install air or ground source heat pumps in place of conventional propane-fired boilers in the initial construction or as soon thereafter as funding becomes available. Subject to funding, the town also expects to convert the town hall propane-fired boilers to ground-or air-source heat pumps. Together, these conversions will reduce GHG emissions by 30 MT CO2e.

With the short-term actions identified above, the switch to electric vehicles described above and conversions to heat pumps, the town will exceed the 2030 goals for GHG emissions reduction.

2050

Achievement of the 2050 goals will be especially challenging and will likely require replacement of the town's construction equipment with all-electric equipment.

Actions that the town plans to take in the short, medium, and long term are summarized in the following table.

Climate Action Plan - Actions

2022-2023

- Reduce heating oil consumption by replacing the existing thermostats in the office area and other areas of the town hall with programmable thermostats
- Reduce propane consumption by replacing the hot water heaters in the town hall and highway garage with demand-type tankless hot water heaters

<u>2030</u>

- Reduce gasoline consumption by replacing the town's two pickup trucks with electric trucks
- Reduce heating oil consumption by replacing the existing highway garage with a new garage with energy efficient design
- Reduce heating oil consumption by replacing the existing highway garage with a new garage with a "green" HVAC system (e.g., air source or ground source heat pumps)
- Reduce heating oil consumption by replacing the existing heating system in the town hall with a "green" HVAC system
- Reduce electricity consumption by installing PV electric generation capacity at town hall.

2050

- Reduce diesel consumption by replacing the town's four dump/plow trucks with electric trucks
- Reduce electricity consumption by installing PV electric generation capacity in the town highway garage

5. Monitoring and Metrics

The town board will review progress towards completion of the actions identified herein each April. The town will periodically, e.g., annually or every two years, calculate annual emissions using the Climate Smart Communities Local Government Greenhouse Gas Accounting Tool or a similar tool.