



MEMORANDUM COUNTY OF ERIE DEPT. OF ENVIRONMENT & PLANNING

TO: Mark C. Poloncarz, County Executive
Maria Whyte, Deputy County Executive
Hon. Timothy Meyers, Chair, Energy & Environment

FROM: Bonnie Lawrence, Deputy Commissioner

DATE: October 4, 2019

RE: *Erie County Commits to Paris* – 2019 Annual Report

Introduction

Since the release of the *Erie County Commits to Paris* report in January 2018, substantial progress has been made on the 37 initiatives that are outlined in the report. A review of the significant sources of greenhouse gas (GHG) emissions from Erie County government operations for calendar year 2018 shows a 28% decrease in emissions since 2005, and more than 2% decrease since 2014. This memo will summarize the progress on the initiatives outlined in both the *Erie County Commits to Paris* report and the recently adopted *Climate Action and Sustainability Plan* for internal operations, as well as the findings regarding the GHG emissions inventory for internal operations.

Progress on Initiatives

The members of the Erie County Commits to Paris work group provided the updated reports on the initiatives outlined in the *Erie County Commits to Paris* report for the time period of October 1, 2018 – September 30, 2019. The members of the Erie County Green Team provided updates on the Tier One Priority Initiatives that are outlined in the *Climate Action and Sustainability Plan* for internal operations, which was finalized in January 2019 and adopted by the legislature in February 2019. Please refer to the attached spreadsheets for a complete listing of the initiatives and the status of each.

• *Completed Initiatives*

Erie County Commits to Paris: To date, nine initiatives have been fully completed, representing 24% of the total, including the recently awarded Climate Smart Community designation by the New York State Department of Environmental Conservation.

Climate Action and Sustainability Plan for internal operations: Since adoption of the Plan approximately seven months ago, two of the 25 Tier One Priority Initiatives have been completed, representing 8% of the total.

- *In Progress Initiatives*

Erie County Commits to Paris: Of the remaining 28 initiatives, 26 are in progress. There are initiatives in progress in all three categories of initiatives - internal operations, community-wide, and partnership. It is also important to note that five of the in progress initiatives are classified as “on-going” or “annual” obligations and are unlikely to ever be classified as completed.

Climate Action and Sustainability Plan for internal operations: Of the remaining 23 Priority Tier One initiatives, 20 are in progress. Many of the initiatives are nearing completion, while others are in the beginning phases. It is also important to note that four of the in progress initiatives are classified as “on-going” or “annual” obligations and are unlikely to ever be classified as completed.

- *Initiatives Not Yet Begun*

Erie County Commits to Paris: Two initiatives have not yet begun, representing 5% of the total. The two initiatives that haven’t been started are dependent on the progress of other initiatives.

Climate Action and Sustainability Plan for internal operations: Three initiatives have not yet begun, representing 12% of the total. The initiatives that haven’t been started are slated to begin by the end of the year.

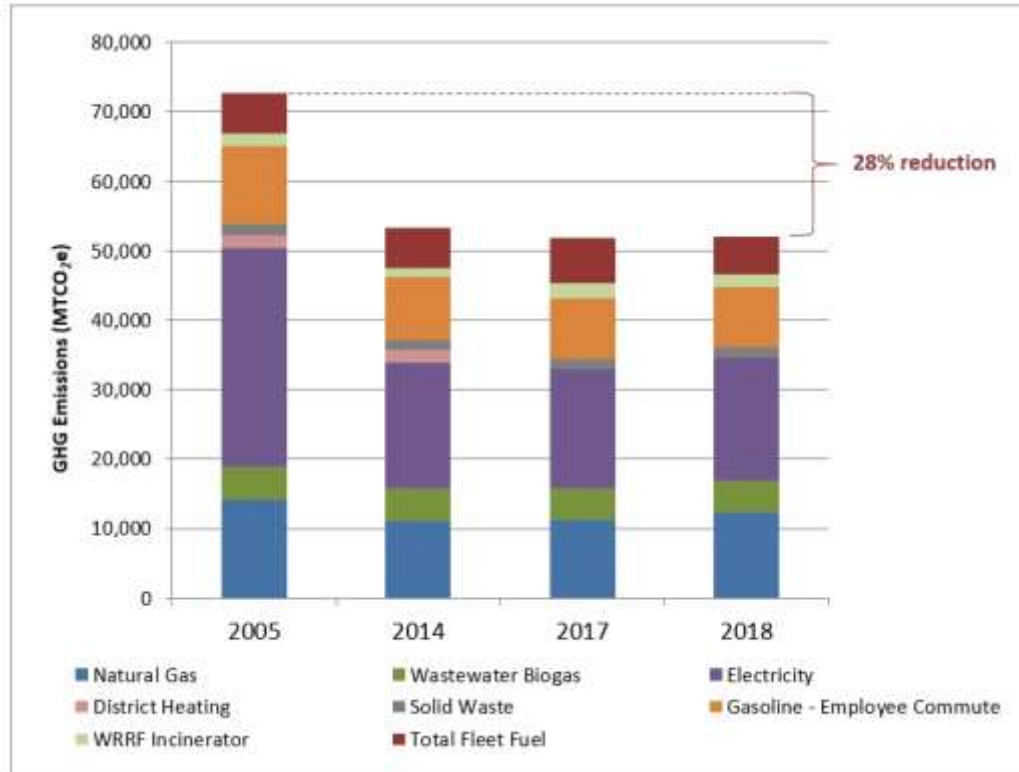
Greenhouse Gas Emissions from Erie County Operations

In the *Erie County Commits to Paris* report, 2014 greenhouse gas (GHG) emissions were inventoried for both internal County operations and for the larger community and compared to the baseline year of 2005. In last year’s update report, the 2017 internal operations GHG inventory was reported. This year’s update report includes the GHG inventory for internal operations for 2018. These inventories are shown in Figure 1 below. Also for Figure 1, the emissions reported last year for 2017 are revised downward by about 1%, because of more accurate electric generation mix data that became available since last year’s report. For the 2018 inventory, electric generation mix data is not yet available, and 2018 is assumed to have the same generation mix as 2017.

GHG emissions by source type are shown in Figure 1. 2018 GHG emissions have decreased 28% since 2005, and 2.4% since 2014. There was a 0.6% emissions increase between 2018 and 2017, because of an increase in natural gas use (2.1% increase of total GHG emissions), electric consumption emissions (1.0% increase), and employee commute emissions (0.2% increase) offset by a decrease in fleet fuel emissions (1.8% decrease) and water resource recovery facility incinerator emissions (1.0% decrease). Natural gas use is normalized by heating degree days, and it is unclear why there was an increase in natural gas GHG emissions. The increase in electric emissions may be because of increased air conditioning loads due to a 53% increase in cooling degree days in 2018, which is not normalized. Decrease in fleet emissions may reflect modernization of the light duty fleet and decreased snow plowing operations. The decrease in incinerator emissions are because of equipment improvements at the Southtowns Water Resource Recovery Facility, and these emissions reductions will be ongoing.

At the end of 2019 Erie County will begin work on a large energy performance contract that will reduce energy use in most County buildings. Initial estimates show the improvements will reduce total County GHG emissions by about 7%. Those improvements will be partially implemented for the 2020 GHG inventory, and will be fully implemented for the 2021 GHG inventory that will be reported in 2022.

Figure 1. Erie County Internal Operations Emissions by Year and Source



Conclusion

Substantial progress has been made on the initiatives outlined in both the *Erie County Commits to Paris* report and the *Climate Action and Sustainability Plan* for internal operations. Erie County is laying the groundwork for large projects that will make a significant difference in its GHG inventory within the next two years. Substantial progress is expected by the next report, which will be issued on October 1, 2020.

Climate Action and Sustainability Plan for internal operations - Priority Tier 1 Initiatives

		#	measure	Lead Dept.	% complete	Update
Employee Commute		C-1	Implement an employee matching, rideshare commuter program to reduce single occupancy vehicle commuting a) Implement employee matching for rideshare b) Program to promote rideshare c) Options for vanpooling	Personnel	60%	The County has joined NY511 rideshare program, which is an on-line resource for employees to find easy, affordable, and sustainable alternatives to driving alone. Employees have the option to join the rideshare portal to find potential rideshare matches. The program is promoted monthly at the new-hire orientation.
		C-2	Educate employees on commute alternatives through comprehensive outreach programs a) continual educational opportunities for employees to learn about alt trans b) work with local transit providers for resources c) review current benefits, streamline	DEP	50%	Employee education is an on-going action. The County has worked with partners such as GObike Buffalo, GO Buffalo Niagara, and NFTA to educate and encourage employees to use alternative transportation. During Earth Week 2019, the County hosted a tabling event for employees to sign up to access the new bike storage garage, learn about the county carpool program, and speak with a NFTA representative about public transit options and benefits. Additionally, two workshops were offered throughout the year to employees to learn about general bike safety and the rules of the road while cycling.
		C-3	Construct buildings and parking areas to better support alternative transportation a) alt construction policy and design guidelines b) enhanced implementation of complete street policy	DPW	30%	Currently two electric charging stations have been fully installed at County parks and are open to the public. Thirteen additional stations are slated to be installed: eight more in parks, at all three SUNY Erie locations, ECMC, and the Botanical Gardens. The current complete street policy and procedures will be as part of a NYSDEC grant, slated to start in November 2019.

Climate Action and Sustainability Plan for internal operations - Priority Tier 1 Initiatives

Fleet	#	measure	Lead Dept.	% complete	Update	
		F-1	Establish and implement an enhanced preventative fleet maintenance program for County owned vehicles a) electronic maintenance management system b) best practices for refrigerant handling c) low rolling replacement tires	DPW	60%	Because the County is replacing most of its light-duty fleet as part of a lease program, going forward the fleet will be will turn over more quickly with more recent vehicle models, reducing the opportunity for maintenance related GHG savings. All non-DPW fleet vehicles will be signed directly into a maintenance program which allows maintenance management to be done electronically and tracked more thoroughly.
		F-2	Implement technology to reduce idling by patrol cars and other frequently idled vehicles	DPW	10%	Vehicle idling and a policy around it will be discussed by the transportation committee as part of the Fleet Efficiency Policy. The meetings will begin in November 2019. A representative from the Sheriff's Office is on the transportation committee to discuss patrol vehicles.
		F-3	Increase the use of high-efficiency and alternative fuel vehicles and equipment in the County fleet a) purchase policy that promotes fuel efficiency b) retrofit HD vehicles to alt fuel	DPW	50%	Through NYSERDA's Charge Ready NY program, the County is adding 13 new charging locations throughout the County in 2019. These new locations include numerous parks and county-owned golf courses, ECC campuses, ECMC, and Botanical Gardens. Additionally, the County has added hybrid electric vehicles to the general fleet and four charging stations will be installed for internal use.
	F-4	Improve fleet deployment and monitoring a) expand and improve management and monitoring AVLs b) fleet reservation system c) manage out of county travel	DPW	40%	A new vehicle travel policy has been developed and is being reviewed. DISS has developed an on-line fleet reservation system, which will be rolled out in the near future.	

Climate Action and Sustainability Plan for internal operations - Priority Tier 1 Initiatives

Waste Management and Recycling	#	measure	Lead Dept.	% complete	Update
	W-1	Develop departmental waste plans to identify processes which can minimize waste and maximize recycling a) departmental schedule for internal evaluations b) identify disposal methods c) opportunities to eliminate waste	DEP	5%	The Green Team evaluates departmental procedures on a case by case basis currently; when the suggestions are brought to our attention by an employee. The Procurement and Waste committee is meeting in the fall of 2019 and will determine next steps on creating a departmental evaluation schedule.
	W-2	Develop and implement a paper use reduction policy and procedures a) departmental baseline, track and report b) digital work process review c) centralized printer stations d) increase email storage, improve archive	DISS	10%	In 2019 the County rolled out a new printing system, Uniflow, which contains built-in paper reducing features, such as the requirement to swipe your ID badge to print. Not only does this feature allow for management of prints/copies at the individual level, but also reduces erroneous printing. An implementation period was needed to work out any issues with the changeover, but the Paper Reduction Committee plans to meet in late 2019 to start incorporating the other sustainability initiatives available through Uniflow.
	W-3	Develop a construction and demolition waste policy for all construction projects a) renovation and new build b) annual reporting	DPW	5%	A construction waste policy will be developed as part of a NYSDEC grant, slated to start in November 2019.
	W-4	Develop meeting & event guidelines to reduce waste a) internal b) external	DEP	5%	The Procurement & Waste committee will meet in the fall 2019 to discuss green meeting guidelines.
W-5	Implement an organic waste reduction compost program a) ECCF b) YD c) coffee grounds in offices d) other organic materials	DEP	30%	Construction of the compost site at the Erie County Correctional Facility is now breaking ground and food waste from that facility will be composted starting in November 2019. DEP has applied for NYSDEC funding to expand food collection to the Holding Center, potentially the Youth Detention facility, and materials from other office buildings.	

Climate Action and Sustainability Plan for internal operations - Priority Tier 1 Initiatives

	#	measure	Lead Dept.	% complete	Update
Buildings and Energy	E-1	Implement initiatives to improve building energy performance and operate buildings more efficiently (operations & maintenance) a) expand monitoring, control and report b) Maintain database of building energy, audit c) update SOPs for energy saving	DPW	50%	Through an Energy Performance Contract that will begin construction in early 2020, the County is conducting numerous energy saving projects such as upgrading to LED lights, replacing inefficient heating and cooling equipment, adding controls to make equipment more efficient, and improving the building envelope. The project projects a 7% GHG emissions reductions from the project. In addition, the County has embraced cutting-edge technology such as Real-Time Energy Management to further improve building energy efficiency.
	E-2	Perform comprehensive energy efficiency improvements to County buildings a) EPCs b) retro-commissioning	DPW	70%	The County has finalized the audit portion of the Energy Performance contract; auditing 34 buildings and identifying over 200 energy-saving projects. Additionally, the County's Public Safety Building has conducted a retro-commissioning study that will lead to energy efficiency improvements.
	E-3	Develop and purchase 100% renewable electric energy a) develop on EC property b) develop purchasing strategy c) RECs		33%	The County is in the process of finalizing almost 1 MW of solar development across various County properties. The County is also refining the criteria for roof-mounted solar arrays. Additionally, the County has investigated methods for acquiring Renewable Energy Certificates (RECs) and is developing a bidding mechanism and strategy for meeting its renewable energy goals.
ament	L-1	Implement landscape management guidelines to incorporate sustainable strategies a) evaluate practices, develop strategies b) upgrade tools and equipment	DEP/DPW/ Parks	5%	An update to the Parks Master Plan was published in late 2018 and details management strategies throughout the County parks. This will be referenced as landscape management guidelines are established. Due to change in Parks Department leadership, meetings have been on hold. They are slated to resume late 2019.

Climate Action and Sustainability Plan for internal operations - Priority Tier 1 Initiatives

	#	measure	Lead Dept.	% complete	Update
Land Manag	L-2	Develop a Natural Resource Inventory (NRI) for land management planning	DEP/DISS	100%	The Erie County Natural Resource Inventory has been completed and is available on the Erie County website for internal and public use.
	L-3	Develop and implement a native plant policy for County owned facilities a) ECCF horticultural program b) elimination-prevention of invasive	DEP/DPW/ Parks	20%	An outline for an Erie County native plant policy has been developed. The Land Management Committee, which includes key departments that will be affected by this policy, will meet in the fall to discuss all aspects of the policy.
Water Conservation and Stormwater	Wa-1	Stormwater Management - Identify and implement green infrastructure practices that reduce stormwater runoff and minimize pollutant loadings to waterways.	DEP/DPW	20%	This is an on-going initiative that will be completed on a project by project basis. DEP has met with DPW to discuss changing the language in the contract to stop pesticide use on county property. DEP attended a green roof meeting to discuss the potential to install green roofs on County buildings. The land management committee will discuss potential mapping areas of concern from the Natural Resource Inventory.
	Wa-2	Educate employees on the importance of water conservation and protection efforts through outreach activities	DEP	25%	DEP actively educates the community on the importance of stormwater and watershed pollution prevention at the many outreach events throughout the year. DEP will continue to educate the public and explore internal employee education opportunities in 2020.
ment	S-1	Investigate alternative means to manage biosolids at County owned water resource recovery facilities a) eval biosolid disposal methods b) identify improvements for dewatering and stabilization	DSM	10%	There has been no progress on evaluating alternative biosolids disposal methods. Improvements continue with regard to optimizing biosolids dewatering/stabilization. Additionally, a consultant is presently evaluating the use of alternative fuels in the incineration process at the Southtowns Water Resource Recover Facility.

Climate Action and Sustainability Plan for internal operations - Priority Tier 1 Initiatives

	#	measure	Lead Dept.	% complete	Update
Sewerage Manager	S-2	Address GHG Impacts at Water Resource Recovery Facilities a) strategic energy management pilot b) combined heat/power	DSM	50%	Year 1 of the Strategic Energy Management pilot has been completed. Several initiatives have been implemented, with others in progress. NYSERDA is presently working with the consultant managing this pilot to develop the Year 1 final report. There has been no progress on potential combined heat/power - likely this will be considered when anaerobic digesters are evaluated.
	S-3	Triple Bottom Line Decision Making Process for Large Capital Projects	DSM	100%	A triple bottom line analysis was developed for evaluating options associated with major upgrades at the Southtowns facility.
Purchasing	P-1	Amend policies and procedures to consider the environmental impacts of procured products and services	Purchasing /DEP	10%	The Procurement and Waste Committee has discussed and outlined the procedures to review bids and specs to identify products being purchased by the County that are not environmentally preferable and determine alternative products. The Committee will meet in the fall 2019 to discuss implementation strategy.
	P-2	Develop financial mechanism to fund climate mitigation actions	Budget	30%	The Green Team has documented the savings from energy conservation and waste reduction projects implemented in the County's internal operations. These savings have been reviewed by the Budget Office and may be the basis of a fund for future sustainability projects.