

Erie County 2021 Climate Action Update

Key Takeaways

Despite the many challenges presented by the pandemic, and indeed sometimes because of those challenges, Erie County has made significant reductions in its greenhouse gas (GHG) emissions. The 2020 GHG inventory shows a decrease of 36.4% compared to the 2005 baseline, surpassing the goal for 2020 set by the *Climate Action & Sustainability Plan (CASP) - Internal Operations* by almost 4.5%.

Since last year's report, Erie County has made substantial progress implementing the initiatives outlined in *Erie County Commits to Paris* and the CASP, including the successful implementation of several large projects. This report gives an overview of the progress on those plans. However, many of those initiatives were not completed until near the end of 2020. Thus, much of the GHG emission reductions can be correlated to impacts from the pandemic and point to the potential benefit of creating a long-term work from home policy for appropriate County employees.

The next year will focus on the development of an equity-centered Community Climate Action Plan, as community-wide GHG emissions are orders of magnitude larger than GHG emissions from county government operations. The County will also continue to implement the measures outlined in the two plans.

Background

The CASP was developed by the Erie County Green Team, which has representation from all County departments as well as from other elected officials. The CASP, which focuses on internal operations, was adopted by the Erie County Legislature in early 2019.

Tracy Skalski, Erie County's Sustainability Coordinator, whose position has been funded through New York State grants for the past six years has been critical to this effort. The Green Team, which met monthly for years, now meets quarterly. Committees working to implement the actions outlined in the CASP meet more frequently.

The CASP set aggressive greenhouse gas (GHG) emission reduction targets, including a 32% reduction from the baseline of 2005 by 2020 for the County's internal operations. The CASP also contains a commitment to procure all electricity for County operations from renewable sources by 2030. The GHG inventory for the County's internal operations for 2020 is included in this report.

The *Erie County Commits to Paris* report was released in 2018 to implement Executive Order 17 that directs the County to meet the GHG goals of the Paris Climate Accord for both County operations and the community as a whole, which is a 26-28% reduction from 2005 baseline by 2025. At the time of the initial report it was found that the County internal operations had already met this goal. However, the larger community had only achieved a 12% GHG reduction from the 2005 baseline.

Understanding that it needs to address climate change at the community level, Erie County recognized the Community Climate Change Task Force as the official advisory body to the County on issues related to climate change. The Task Force is a committee of the Environmental Management Council, which advises

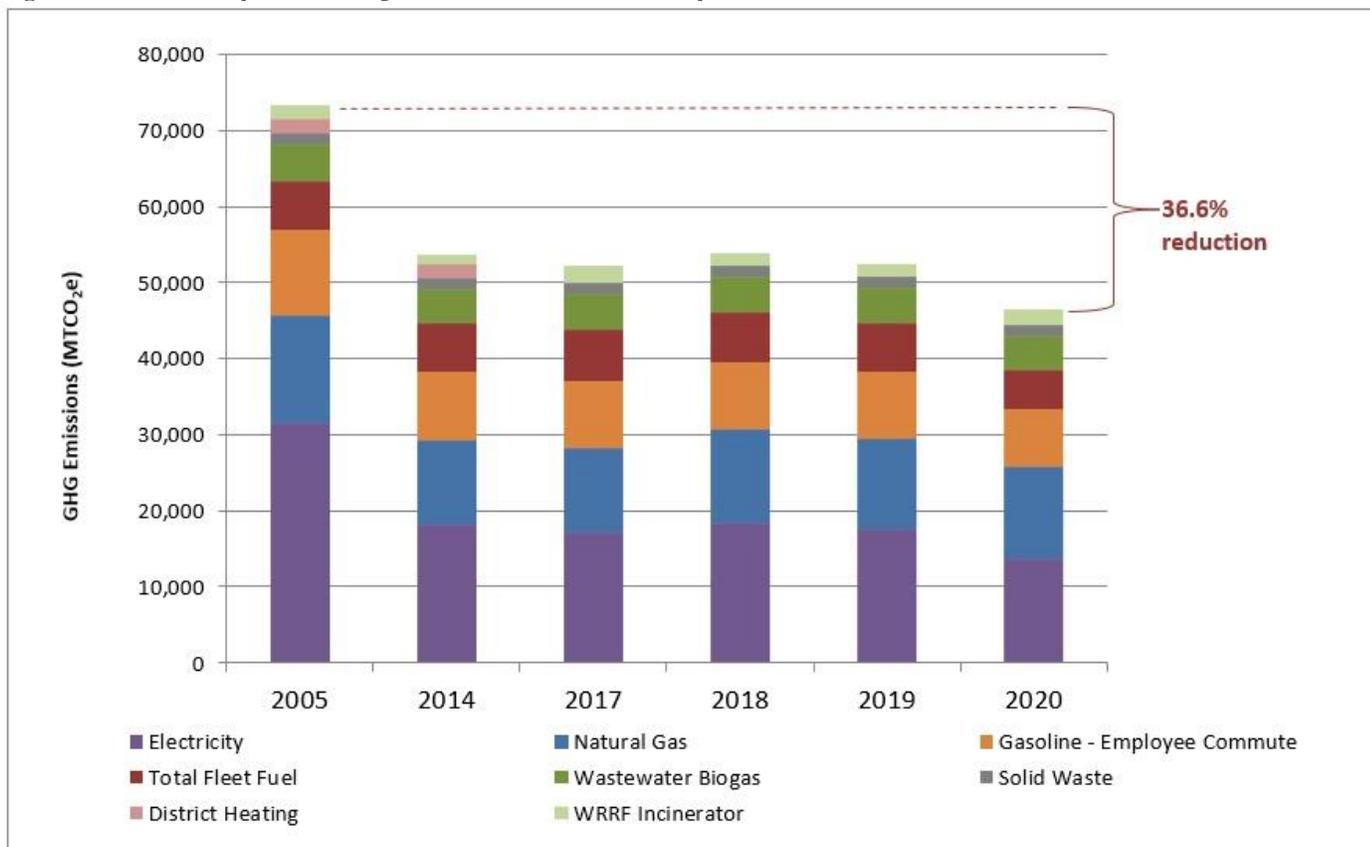
the County on environmental issues. Dr. Susan Clark currently chairs the Task Force, which includes representatives from community-based organizations, not-for-profits, colleges, municipalities, business representatives, NFTA, National Grid, the Greater Buffalo Niagara Transportation Council, the Buffalo & Erie County Public Library, the Buffalo Museum of Science, and the WNY Youth Climate Council. The Task Force, stewarded by Sustainability Coordinator Tracy Skalski, is working on creating an equity-focused Community Climate Action Plan. Stakeholders from throughout the County are participating on ten (10) working groups to develop chapters of the plan. A website, www.erie.gov/climateaction, contains documents for public comment, as well as several ways for community members to get involved in the development of the Plan.

As the County was moving into the community climate action planning process, New York State adopted the Climate Leadership and Community Protection Act (CLCPA). This act has several targets including 85% reduction of GHG emissions from a 1990 level and 100% zero emission electricity by 2040. Moreover, CLCPA calls for 35-40% of investment & benefits to historically disadvantaged groups. The Task Force has recommended that the County adopt these goals moving forward.

2020 Greenhouse Gas Inventory for Internal Operations

The 2020 GHG inventory for the County’s internal operations shows a 36.6% reduction in GHG emissions compared to the 2005 baseline. This is a significant reduction from the 2019 inventory, and exceeds the goal of a 32% reduction by 2020 from the 2005 baseline.

Figure 1. Erie County Internal Operations GHG Emissions by Source



The County has implemented many energy conservation, waste reduction, and renewable energy projects, which have resulted in GHG emission reductions. Those projects will be described below and in the attached tables. Key projects, including the Energy Performance Contract, described below, were only partially implemented at the end of 2020. Therefore, it appears that much of the most recent GHG reduction is the result of changes due to the COVID-19 pandemic. Significant reductions came from reduced electric use, likely from reduced lighting, computer and copier use at County buildings, as well as decreased fleet fuel use. Weather-normalized natural gas use increased about 1%, which is likely because while some spaces were heated less because of remote work, other spaces had higher amounts of outside air ventilation to reduce the risk of COVID-19 transmission for workers, requiring more space heating.

Employee commute emissions saw a large reduction, which resulted from remote work by staff because of the pandemic. Telework is included in measure C-5 in the CASP, and much has been learned about this impactful practice that can support a work-from-home policy.

The County is fortunate to have P. Josh Wilson, who directs sustainability programs for the County and has experience from previous positions creating GHG inventories and sustainability plans for communities and businesses in New York State. The inventory process has been documented so that it can be replicated from year to year.

Progress on Initiatives

Tables with updates on initiatives in the *Erie County Commits to Paris* and the *Climate Action & Sustainability Plan for internal operations (CASP)* are attached. Below are a few significant projects and achievements that were accomplished over the past year.

Energy Performance Contract – Through the use of this specialized contract for energy conservation projects, the County is addressing more than 100 projects at over 40 County-owned buildings. These projects update the heating and cooling equipment to modern, energy-efficient technology, upgrade the lighting to power saving LED fixtures, and improve the control over building equipment by adding high-tech digital controls. Department of Public Works’ Energy Director Reed Braman is managing this important project, while he also identifies other sources of funding for additional projects. For example, a building has been identified as a candidate for New York State Energy Research and Development Authority’s Very-High Efficiency Heating, Ventilation, and Air Conditioning pilot program that seeks to reduce energy related to heating and cooling by over 50%.

Paris (Climate Action) Fund – This fund, established in the 2020 budget, reinvests half of the previous year’s cost savings achieved through energy conservation and waste reduction projects into additional sustainability initiatives. It is important to note that because of the way the Energy Performance Contract (discussed above) is structured, this fund does not include savings from that program. The fund is overseen by the Executive Committee of the Green Team, which includes the County Executive's Chief of Staff and the Commissioners of Public Works, Environment and Planning, and Parks, as well as leadership from Social Services, Budget, and Information Support Services. The funds are utilized to implement action items identified in the CASP, as well as other projects identified by the Green Team. Whenever possible the fund is used to leverage additional funding through grants and rebates. Although the fund was reduced because of budget constraints in 2020, the remaining funds were used to replace propane heating systems in Parks buildings with high efficiency air source heat pumps, providing both GHG emission reductions and cost savings. For 2021 projects are still being finalized but will likely include electric vehicles and other electric equipment to replace fossil fueled vehicles and equipment, energy conservation projects, and support of the development of the Community Climate Action Plan.

Open C-PACE – Clean Energy Financing – Property Assessed Clean Energy (PACE) is a financing mechanism for energy conservation and renewable energy projects in commercially owned buildings. In NYS, PACE is operated by the Energy Improvement Corporation (EIC). The most current version of PACE is called Open C-PACE. In the spring of 2021, Erie County completed all the necessary items to bring PACE to all towns and villages. Cities need to opt in separately, as of the time of this memo, in Erie County only properties in the City of Tonawanda do not have access to PACE financing.

Food Composting - A composting project, which includes a compost site and a food waste collection program, is in full operation at the Erie County Correctional Facility. The project, which is supported by a NYS Department of Environmental Conservation (NYSDEC) Climate Smart Communities Grant, composts 90% of the food waste at the facility. From October 2020 through September 2021, Erie County composted 62 tons of food scraps, reducing more than 50 metric tons of GHG emissions, while saving more than \$20,000 per year in disposal costs. A second NYSDEC grant has been awarded to expand the collection of food waste to other County facilities, most notably the Holding Center, and will become operational by the end of 2021.

Silver Climate Smart Community Certification - Erie County has achieved Silver Certification, currently the highest level, in New York State’s Climate Smart Communities program by demonstrating the extensive work being done across the county to reduce greenhouse gas emissions and prepare for the changing climate. Erie County was recognized for the achievement in a recent Climate Week announcement by NYS Governor Kathy Hochul. Certified communities are the foremost leaders in the state, having gone beyond pledging to take climate action to completing and documenting a suite of actions that mitigate and adapt to climate change at the local level. Prior to this round of certifications there were only three out of sixty-two New York State counties that had achieved the Silver Certification level.

Conclusion

Thanks to the leadership of the County Executive Mark Poloncarz, the support of the Legislature, and the hard work of countless County staff, stakeholders and community volunteers, substantial progress has been made on this critical work. However, as we can see in headlines every day, the impacts from climate change are increasing, and we have much work left to do. We should also embrace the opportunities provided by both mitigating climate change and preparing for its impacts in ways that save money, create new jobs, and look to trees and other natural climate solutions. The next year will focus on development of an equity-centered community climate action plan that will address both climate change mitigation and adaptation. We recognize the challenge in front of us and that our work will make our community stronger as we enter an uncertain future.

Note: This annual report was provided by the Erie County Department of Environment and Planning in October 2021 to the County Executive pursuant to the directive contained in Executive Order 17 - Enforcement of the Paris Climate Agreement.

Summary Table of Paris Report Initiatives and Partnerships

Initiative	Number	Sector	Lead Dept.	% complete	2021 Update
Rath Building	I-1	Bldgs/Energy	DPW	100%	GHG emissions reductions and cost savings were included in the original report.
134 West Eagle	I-2	Bldgs/Energy	DPW	100%	GHG emissions reductions and cost savings were included in the original report.
Big Sister Creek Water Resources Recovery Facility	I-3	Bldgs/Energy	DEP - DSM	100%	GHG emissions reductions and cost savings were included in the original report.
Gravity Sewer Projects	I-4	Bldgs/Energy	DEP - DSM	100%	GHG emissions reductions and cost savings were included in the original report.
Electric Vehicle Purchase	I-5	Transportation	DPW	30%	The County has ordered five all electric Transit vans to replace gas-powered vans, and three hybrid sedans will be replaced with all electric vehicles. The Sheriff's Office added 20 hybrid Explorers to their fleet.
Solar Installation at the Correctional Facility	I-6	Bldgs/ Renewable Energy	DPW	100%	2MW solar array is in place. GHG emissions reductions were already included in the original <i>Erie County Commits to Paris</i> report.
Energy Performance Contract	I-7	Bldgs/Energy	DPW	80%	Through the Energy Performance Contract, the County is addressing more than 100 projects at over 40 County-owned buildings. These projects update the heating and cooling equipment to modern energy-efficient technology, upgrade the lighting to power-saving LED fixtures and improve the control over building equipment by adding high-tech digital controls. On a separate project, a building has been identified as a candidate for NYSERDA's Very-High Efficiency HVAC pilot program that seeks to reduce energy related to heating and cooling by over 50%.
Strategy for Future Re-Lamping Projects	I-8	Bldgs/Energy	DPW	90%	The vast majority of the County's lights have been or are scheduled to be switched to energy-saving LEDs. Over the past year the Energy Performance Contract has upgraded over 19,000 lights throughout all County buildings.
REV Campus Challenge	I-9	Bldgs/Energy	DEP	95%	The County has continued to pursue the solar projects with the consortium of partners, led by UB, as part of the "REV Campus Challenge." A 445 kW array was constructed on County property and offsite proposals have been reviewed and scored.
Composting Project at Jail	I-10	Methane/ Waste	DEP	100%	The composting project, which includes a compost site and a food waste collection program, is in full operation at the Erie County Correctional Facility. The project, which is supported by a NYS Department of Environmental Conservation Climate Smart Community Grant, composts 90% of the food waste at the facility. A second NYSDEC grant has been awarded to expand the collection of food waste to other County facilities. That project is scheduled to begin in 2021.

Summary Table of Paris Report Initiatives and Partnerships

Initiative	Number	Sector	Lead Dept.	% complete	2021 Update
Erie County Fleet Policies and Standards	I-11	Transportation	DPW	30%	The Transportation Committee of the Green Team has created a draft fleet efficiency policy, which establishes goals for reducing excess idling in the fleets. This policy will be reviewed by DPW. It is anticipated that the idling policy will be implemented in stages, after the baseline is created from monitoring AVLs. A new AVL system has been piloted with plans to be in place later this year.
Other Procurement Policies	I-12	Policy	DEP	15%	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 2022 to discuss an implementation strategy.
Tax Incentives for Public Transportation for Employees	I-13	Transportation/Policy	DEP	50%	Currently, because of IRS rules about transit pass distribution by employers, the Niagara Frontier Transportation Authority's fare system does not readily allow the County to offer pre-tax bus and train passes to County Employees. The NFTA is updating to a smart card based system in 2021 which will allow for this benefit, and the County preparing to offer this to employees once that update is complete.
Support Alternative Transportation through Infrastructure and Policy	I-14	Transportation/Policy	DEP/DPW	65%	<p>Erie County has worked with partners such as GObike Buffalo and GO Buffalo Niagara to make alternative commuting a safer and viable option for employees. The secure bicycle parking garage that was constructed in front of the Rath building for employees for convenient, safe and free bike storage is used frequently. Currently 124 employees participate in the NY511 rideshare program, which is an on-line resource for employees to find easy, affordable, and sustainable alternatives to driving alone. DEP is strategizing new approaches to influence employee commuting at the County in the Fall 2021.</p> <p>The County has added 14 charging stations at 10 locations throughout the county. These locations include Sprague Brook, Isleview, Emery, Elma Meadows, Ellicott Creek, ECC South (2), Bennet Beach, Grover Cleveland, ECC North (2),and ECC City.</p> <p>The Greater Buffalo Niagara Regional Transportation Council (GBNRTC) Regional Bicycle Master Plan was finalized in 2021 and Erie County has developed implementation procedures to assist municipalities in the implementation of the plan. Municipalities will coordinate with GBNRTC for bicycle infrastructure on County-owned roads within their community.</p>

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Initiative	Number	Sector	Lead Dept.	% complete	2021 Update
Erie County Utilities	I-15	Bldgs/ Renewable Energy	DPW	50%	The County is developing a comprehensive strategy that will reduce energy consumption, develop renewable energy projects and offset the remaining "brown" energy with Renewable Energy Credits.
Assess Solar on Roofs of County Buildings	I-16	Bldgs/ Renewable Energy	DPW	60%	The County has defined the criteria for placing solar panels onto County buildings. A review is currently being conducted to determine prime candidates.
Create Renewable Thermal Targets within Erie County Operations	I-17	Renewable Energy	DPW	50%	Erie County recognizes the benefits of switching from fossil fuels to electrified heating and cooling. Over the past year, four small buildings were retrofitted with air-source heat pumps which eliminated their fossil fueled heating equipment. Several buildings have been identified as candidates for similar technologies and strategies are being examined to address multi-story buildings.
Paris Fund	I-18	Funding Mechanism/ Policy	Budget	100%	The Erie County Green Team has documented the savings from energy conservation and waste reduction projects implemented in the County's internal operations. A Paris/Climate Action Fund based on 50% of these savings was included in the 2021 budget to be used for sustainability projects. The 2020 funding was used for the aforementioned (I-17) heating and cooling projects in Parks' buildings. In 2021, the projects are still being finalized but will likely include electric vehicles and other equipment, energy conservation projects and support of the Community Climate Action Plan.
Tree Management and Habitat	I-19	Policy	DEP	60%	The County has implemented low-mow and no-mow areas as outlined in the Parks Master Plan Update. A tree planting policy has been established. The need to update the Forest Management Plan remains. Unfortunately, the Working Woodlands program with the Nature Conservancy, mentioned in last year's report, is no longer a possibility due to changes in their policies.

Summary Table of Paris Report Initiatives and Partnerships

Initiative	Number	Sector	Lead Dept.	% complete	2021 Update
WNY Sustainable Business Roundtable	C1	All	DEP	100%	This initiative is ongoing. The Roundtable continues to work with businesses to reduce their environmental impact, including GHG reductions. In early 2019 the Roundtable directly hired a Coordinator for the first time, and began charging member dues, both of which are important steps as this organization matures.
Solarize Campaign	C2	Renewable Energy	DEP	100%	Erie County partnered with WNY Sustainable Business Roundtable to offer Solarize to its member businesses including Erie County employees. The campaign was completed in February 2018, with 185 kilowatts of solar energy installed on employee homes, resulting in 66 tons of avoided GHG emissions annually.
ECLIPSE: Erie County Low Income Program for Sustainable Energy	C3	Energy/ Policy	DEP	25%	Low and moderate income households spend a disproportionately larger percentage of their income on energy bills, and are often unable to take advantage of the cost savings from renewable energy alternatives. The Erie County Low-Income Program for Sustainable Energy (ECLIPSE) will address these impacts on Home Energy Assistance Program (HEAP) eligible families. Funded by the New York State Energy Research & Development Authority (NYSERDA) and an in-kind County match, this three-year program will first analyze community needs and intervention strategies, and then implement the most effective solutions. ECLIPSE will focus on bulk energy and green-energy purchasing, access to community solar and related energy efficiency and resiliency improvements. The program involves many County Departments including Environment and Planning, Social Services and Public Works. An ECLIPSE Coordinator has been hired and an internal kick-off is planned for early October.
Climate Smart Communities - Certification & Community Climate Change Task Force	C4	All	DEP	100%	Through the work of its Green Team and Sustainability Coordinator, Erie County has implemented and submitted actions to the program and achieved Climate Smart Communities Silver Certification - currently the highest level in the program. The Erie County Community Climate Change Task Force was created as a subcommittee of the Environmental Management Council (EMC) to provide expert guidance and community input to the County as it makes decisions about its climate change mitigation, resilience, and other sustainability actions. The group continues to meet monthly to discuss pertinent topics/categories that affect climate change. The group is not guiding the creation of the Erie County Community Climate Action Plan and is helping with community outreach.

* C - current/recent; U - upcoming; R - recommended

Summary Table of Paris Report Initiatives and Partnerships

Initiative	Number	Sector	Lead Dept.	% complete	2021 Update
PACE - Property Assessed Clean Energy Financing	C5	Funding Mechanism	DEP	100%	PACE (Property Assessed Clean Energy) is a financing mechanism for energy conservation and renewable energy projects in commercially owned buildings. In NYS, PACE is operated by the Energy Improvement Corporation (EIC). The most current version of PACE is called Open C-PACE. To enable Open C-PACE, municipalities pass a local law and sign an EIC municipal agreement. EIC bills the property owner and directs them to remit the funds to the capital provider, removing any collection obligation from the municipality. As the program administrator, EIC reviews and approves each financing, ensuring it conforms with the enabling legislation and NYSERDA C-PACE guidelines. Erie County completed all the necessary items to bring PACE to all towns and villages in Spring 2021.
Property Tax Exemptions	C6	Policy	DEP	100%	After investigating the experience of the program in Niagara County, this initiative is on hold. Negative findings from their program include lack of support from other taxing jurisdictions, underutilization of the program and backlash regarding equity issues. This will be looked at again as we work with municipalities within the County.
Revolving Loan Fund	C7	Funding Mechanism	DEP	25%	The County will look into ways to establish a revolving loan fund through the ECLIPSE project.
Community Solar	C8	Renewable Energy	DEP	25%	Erie County worked with the WNYSBR to procure and offer community solar for Erie County employees. The selected contractor offered two webinars for County employees, and more than 40 employees signed up. Participating employees will save about \$120 per year in electric costs while supporting the County's community greenhouse gas reduction goals. Because this program satisfied criteria for a NYSERDA Clean Energy Communities grant, Erie County will receive a grant \$15,000 to for climate action work in our community. Erie County is working on a community solar focused on low and moderate income residents (see Initiative C-4, ECLISPE)
Renewable Heating and Cooling	C9	Renewable Energy	DEP	35%	In 2018, DEP partnered on a successful grant application led by PUSH Buffalo for a NYSERDA grant to run a Thermalize campaign in Erie County. The project will facilitate low-cost ground and air source heat pump installations, and includes a component focused on low- and moderate-income residents. The project has recently begun and Erie County stands at the ready to help PUSH with this project
Purchasing Renewables through Utilities Aggregation	C10	Renewable Energy	DPW	35%	The County has continued to investigate methods for acquiring Renewable Energy Credits. The County continues to work with its utility fund consultant to develop a strategy for meeting its renewable energy goals. Also, the ECLIPSE Project (C-3) will investigate using the utility fund as a vehicle for providing low-cost renewable energy to HEAP recipients.

Summary Table of Paris Report Initiatives and Partnerships

Initiative	Number	Sector	Lead Dept.	% complete	2021 Update
Parking Lot Policy: Public Electric Vehicle Charging Stations, Green Infrastructure & Solar Installations	C11	Policy/Renewable Energy	DPW	60%	The County has established 14 charging locations throughout the County. These new locations include numerous parks and County-owned golf courses, and ECC campuses. The County is also looking at developing high-speed charging infrastructure.
Carbon Pricing	C12	Policy	DEP	10%	This is likely to be addressed at the state level as part of the Climate Leadership and Community Protection Act. The County will follow this development.
Energy Performance Ratings	C13	Policy	DEP	0%	DEP has had informal discussion with NYSERDA about this action, but nothing has materialized. DEP will continue to look for opportunities to move this forward.

Summary Table of Paris Report Initiatives and Partnerships

Initiative	Number	Sector	Lead Dept.	% complete	2021 Update
Intra-County	P1	All	DEP	ongoing	A Community Climate Change Task Force, as a committee of the Environmental Management Council, has been active since January 2019. The Task Force includes municipal representatives from Tonawanda, Buffalo, and Clarence. The Task Force is advising the County on developing a Community Climate Action Plan that has equity as its focus and is aligned with the New York State Climate Leadership and Community Protection Act.
Inter-County	P2	All	DEP/DPW	ongoing	The New York State Association of Counties' Climate Resiliency Committee, which was initiated and chaired for more than a year by County Executive Poloncarz, meets regularly. Deputy Commissioner Bonnie Lawrence serves as co-vice chair. This committee has provided a format for counties across the state to learn from each other, as well as from state agencies that participate on the committee.
Regional Transportation	P3	Transportation	DPW/DEP	ongoing	The Greater Buffalo Niagara Regional Transportation Council (GBNRTC) Regional Bicycle Master Plan was finalized in 2021 and Erie County has developed implementation procedures to assist municipalities in the implementation of the plan. Municipalities will coordinate with GBNRTC for bicycle infrastructure on County-owned roads within their community.
Utility Infrastructure	P4	Energy	DEP	ongoing	Erie County continues to work with its utility partners. For example, National Grid is a member of the Community Climate Change Task Force. Moreover, through work with the WNY Sustainable Business Roundtable, Erie County has helped to promote the utilities' energy conservation and electric vehicle programs.
Outreach & Training Partnerships	P5	All	DEP	ongoing	Erie County continues to work with its partners to coordinate outreach and training events. For example, the County has worked with UB Regional Institute on a variety of learning sessions. The County also worked with the WNY Sustainable Business Roundtable to coordinate workshops related to climate change.

2021 Summary Table of Initiatives - Erie County Climate Action and Sustainability Plan - Internal Operations - Priority Tier 1

Initiative	Sector	Lead Dept.	% complete	2021 Update
C-1 - Reducing Single occupancy Vehicle Commuting	Transportation - Commute	Personnel	65%	The NY511 rideshare program currently has 124 Erie County employees participating. DEP is strategizing new approaches to influence employee commuting at the County in the Fall 2021.
C-2 - Employee Education on Commute Alternatives	Transportation - Commute	DEP	On-going	Currently, because of IRS rules about transit pass distribution by employers, the Niagara Frontier Transportation Authority's current fare system does not easily allow the County to offer pre-tax bus and train passes to County Employees. The NFTA is updating to a smart card based system in 2021 which may allow for this benefit, and Personnel and DEP are investigating options for offering this benefit.
C-3 - Construct Buildings and Parking to Support Alt. Transportation	Transportation	DPW	55%	Erie County has established 9 charging locations at its Parks and 5 stations at Community College Campuses. An updated Complete Streets Policy has been named as a goal of the Live Well Erie (LWE) program for the Older Adult demographic. DEP is on the LWE transportation sub-committee discussing that topic and has started conversations with the Health Department as they are looking at Complete Street infrastructure to improve walkability in Erie County. The Greater Buffalo Niagara Regional Transportation Council (GBNRTC) Regional Bicycle Master Plan was finalized in 2021 and Erie County has developed implementation procedures to assist municipalities in the implementation of the plan. Municipalities will coordinate with GBNRTC for bicycle infrastructure on County-owned roads within their community.
F-1 - Preventative Fleet Maintenance Program	Transportation	DPW	65%	The fleet inventory is continually updated to identify older, less efficient vehicles to target for replacement. Maintenance records of non-leased vehicles are kept at the department level. DSM is successfully using SAP to have work orders generated automatically to be more efficient regarding vehicle maintenance. They have presented this process to the Sheriff. General Fleet is in the beginning stages of setting up a similar program, working with DISS. Parks is interested but cannot utilize this due to lack of internet access at County Parks.
F-2 - Reducing Vehicle Idling	Transportation	DPW	25%	The transportation committee has created a draft fleet efficiency policy which establishes goals for reducing excess idling in the fleets. This policy will be reviewed by DPW. It is anticipated that the idling policy will be implemented in stages, after the baseline is created from monitoring automatic vehicle locators (AVLs). A new AVL system has been piloted with plans to be in place later this year.

Initiative	Sector	Lead Dept.	% complete	2021 Update
F-3 - Increase Use of Alternately Fueled Vehicles	Transportation	DPW	On-going 65%	The Transportation Committee of the Green Team has held several meetings in 2021 to discuss the goals of the CASP and to increase alternatively fueled vehicles in the fleet. Due to COVID-19, there were no new leases in 2021. The County has ordered five all electric Transit vans to replace gas-powered vans, and three hybrid sedans will be replaced with all electric vehicles. The Sheriffs added 20 hybrid (Explorers) patrol vehicles to their fleet. The Paris/Climate Action Fund will be used to buy additional electric vehicles and switch gasoline powered equipment to electric. In 2022, we anticipate EV pickup trucks to enter the market that may be suitable for the County fleet. Through NYSERDA's Charge Ready NY program, the County has added 14 new charging locations throughout the County. These new locations include numerous parks and county-owned golf courses and SUNY Erie campuses. Four EV charging stations were installed for internal use.
F-4 - Improve Fleet Deployment and Monitoring	Transportation	DPW	45%	DPW is currently implementing a new AVL system which would allow for monitoring at the department level. This system should be in use throughout our fleets later this year.
W-1 - Departmental Waste Plans	Waste Management and Recycling	DEP	15%	In 2018, Sustainability Coordinator Tracy Skalski and Recycling Specialist Gary Carrel began presenting green initiatives to employees at departmental employee meetings. Similar to the New Hire Orientation, the presentation asks employees to look for opportunities to create efficiencies. Next steps will be to create a 'report card' to evaluate departmental waste procedures. Due to COVID-19 the report card work was paused, but DEP plans to restart this in late 2021.
W-2 - Paper Reduction	Waste Management and Recycling	DISS	40%	The Green Team has recently restarted discussion on implementing additional paper reduction initiatives.
W-3 - Construction & Demolition Waste Policy	Waste Management and Recycling	DPW	5%	This action will continue to be discussed at committee meetings in 2021/2022.
W-4 Meeting & Event Guidelines	Waste Management and Recycling	DEP	60%	Due to COVID-19, remote meetings became regular practice, and meetings and gathering rooms have been restricted to accommodate social distance rules. Although the workforce has returned to the office, virtual meetings have continued, which have minimal environmental impact, reduce GHG emissions, and reduce waste.
W-5 - Organic Waste Reduction Compost Program	Waste Management and Recycling	DEP	65%	The composting project, which includes a compost site and a food waste collection program, is in full operation at the Erie County Correctional Facility. The project, which is supported by a NYS Department of Environmental Conservation Climate Smart Communities Grant, composts 90% of the food waste at the facility. From October 2020 through September 2021, Erie County composted 62 tons of food scraps, reducing 54.5 MCO2E, while saving \$20,000 per year in disposal costs. A second NYSDEC grant has been awarded to expand the collection of food waste to other County facilities, most notably the Holding Center, and will become operational by the end of 2021.

Initiative	Sector	Lead Dept.	% complete	2021 Update
E-1 - Building Performance and Operations Improvements	Buildings and Energy	DPW	75%	The County utilizes Building Management Software (BMS) to operate many of the electrical and mechanical operations in County Buildings. Several buildings have incorporated a Real-Time Energy Management System into the BMS system to improve operations. Further work is being conducted through the Energy Performance Contract (see E-2) to coordinate scheduling with hours of operations and eliminate energy use during unoccupied hours. Further digitization of equipment will allow more operations to be tracked and optimized. The County utilizes EPA Portfolio Manager to enter energy data from utility accounts to track electric and natural gas consumption over time. This allows the County to identify trends and address anomalies.
E-2 - Building Energy Efficiency Improvements	Buildings and Energy	DPW	On-going (EPC 80% complete)	Through the Energy Performance Contract (EPC), the County is addressing more than 100 projects at over 40 County-owned buildings. These projects update the heating and cooling equipment to modern energy-efficient technology, upgrade the lighting to power saving LED fixtures and improve the control over building equipment by adding high-tech digital controls. The EPC is estimated to reduce the County's Greenhouse Gas Footprint by over 7%. On a separate project, a building has been identified as a candidate for NYSERDA's Very-High Efficiency HVAC pilot program that seeks to reduce energy related to heating and cooling by over 50%.
E-3 - Renewable Energy	Buildings and Energy	DPW	45%	The County has constructed and is finalizing utility interconnection of a 450 kW solar array on County property, and is pursuing an agreement to purchase power from a 4.8MW array in one of the local towns. Additionally, The County is participating in a coordinated effort to procure utility-scale renewable energy through a consortium with local colleges. The County continues towards its goal of 100% renewable energy through energy conservation, renewable production and REC purchasing.
L-1 - Landscape Management Guidelines	Land Management	DPW	40%	The Parks Master Plan recommended three main general categories of mowing reduction treatment: Natural Regeneration, Wildflower/Meadow and Low-Mow Meadow. Erie County Parks is implementing this policy by returning underused areas of parks to more natural/passive settings, which in addition to the environmental benefits allow the staff resources used to manage these previously manicured landscapes to be redirected to other areas of need. Signage for these areas is in place to create public awareness.
L-2 - Natural Resource Inventory	Land Management	DEP	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 - Native Plant Policy	Land Management	DEP	40%	The Native Plant Policy has been drafted. A list of native and invasive plants exists, but needs to be scaled down and sorted by availability. To assist in this task, a survey may be created for local nurseries.
Wa-1 - Implement Green Infrastructure Projects	Water Conservation and Stormwater	DEP	On-going	This is an ongoing initiative that will be completed on a project by project basis.

Initiative	Sector	Lead Dept.	% complete	2021 Update
Wa-2 - Educate Employees on Water Conservation and Protection	Water Conservation and Stormwater	DEP	On-going	Employee education consisted of 16 employee trainings on the following topics: NYS stormwater permit regulations, illicit discharge detection, sampling and elimination, stormwater management practices/inspection, erosion and sediment control, construction site inspection, pollution prevention/good housekeeping, facility self-assessment and SWPPP review. The Lake Erie Watershed Protection Alliance (LEWPA), which Erie County participates in, developed watershed training videos for municipal officials and promoted them through local government training channels. LEWPA and Erie County watershed and stormwater programs were promoted to local teachers at a NYSDEC teacher training in July 2021 and to the public at the Erie County Fair in August 2021. LEWPA conducted outreach at the inaugural Roaming Gnome Festival in downtown Buffalo in August 2021 on impervious vs. pervious surfaces and the impacts on water quality.
S-1 - Investigate alternative means to manage biosolids at County owned water resource recovery facilities	Sewerage Management	DSM	20%	There has been no progress on evaluating alternative biosolids disposal methods. Improvements continue with regard to optimizing biosolids dewatering/stabilization. An evaluation was completed analyzing the use of alternative fuels in the incineration process at the Southtowns Advanced Wastewater Treatment Facility. This report was submitted to the NYSDEC and is awaiting their review/comment. Additionally, the DSM completed an evaluation of the anaerobic digesters at the Lackawanna WRRF and anticipates initiating design in late 2021 or early 2022.
S-2 - Address GHG Impacts at Water Resource Recovery Facilities	Sewerage Management	DSM	70%	The Strategic Energy Management pilot has been completed at the Southtowns AWTF. Several initiatives have been implemented, with others in progress. A strategic energy management project has been initiated at the Big Sister Creek WRRF as well. There has been no progress on potential combined heat/power - likely this will be considered after the anaerobic digesters at the Lackawanna WRRF are upgraded.
S-3 - Triple Bottom Line Decision Making Process for Large Capital Projects	Sewerage Management	DSM	100%	A triple bottom line analysis was developed for evaluating options associated with major upgrades at the Southtowns facility.
P-1 - Environmentally Friendly Procurement	Purchasing	DEP	15%	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 2022 to discuss implementation strategy.
P-2 - Financial Mechanism for Climate Actions	Budget	DEP	100%	The Erie County Green Team has documented the savings from energy conservation and waste reduction projects implemented in the County's internal operations. Starting in 2020 a Paris/Climate Action Fund based on 50% of these savings was included in the County budget to be used for sustainability projects. The 2020 funding was used for heating and cooling projects in Parks building. In 2021, the projects are still being finalized but will likely include electric vehicles and other equipment to replace fossil fuel powered equipment, energy conservation projects and support of the Community Climate Action Plan.

2021 Summary Table of Initiatives - Erie County Climate Action and Sustainability Plan - Internal Operations - Priority Tier 2

Initiative	Sector	Lead Dept.	% complete	2020 Update
C-4 - Expand Current Commuter Programs	Transportation	DEP	25%	Currently, because of IRS rules about transit pass distribution by employers, the Niagara Frontier Transportation Authority's fare system does not easily allow the County to offer pre-tax bus and train passes to County employees. The NFTA is updating to a smart card based system in 2021 which will allow for this benefit, and initial meetings with Personnel have begun so that it can be offered to employees as soon as possible.
C-5 - Employee Schedule - Implement and promote a comprehensive flexible work schedule	Transportation	Personnel	25%	Due to the COVID-19 pandemic, the County ran an unplanned telecommuting experiment and lessons learned were incorporated into a work from home policy that included telecommuting, compressed work weeks and flexible work weeks. Greenhouse gas emission reductions from these policy changes can be seen in the 2020 GHG inventory. The Green Team is examining other Telework Policies from Counties across New York State to inform a potential future policy.
F-5 - Strategies to promote walking & Bicycling	Transportation	DPW	40%	Erie County participated in the development of the Greater Buffalo Niagara Regional Transportation Council (GBNRTC) Regional Bicycle Master Plan, which was finalized in 2021. Erie County has developed implementation procedures to assist municipalities in the implementation of the plan. Municipalities will coordinate with GBNRTC for bicycle infrastructure on County-owned roads within their community. A Complete Streets Policy has been named as a goal of the Live Well Erie (LWE) program for the Older Adult demographic. DEP is on the LWE transportation sub-committee discussing that topic and has started conversations with the Health Department as they are looking at Complete Street infrastructure to improve walkability in Erie County.
W-7 - Divert Waste from Landfill, Increase Recycling & Reuse	Waste Management and Recycling	DEP	10%	DEP and DPW, working with members of the Green Team, have begun the process of bringing back recycling at county facilities, as much of this effort was put on hold during the pandemic, with staff working from home and due to the loss of the recycling staff provided through a social services program. Co-mingled or single-stream recycling has returned on a limited basis in the Rath Building and other sites as deemed possible by Buildings and Grounds. Purchasing is looking at reviving the printer cartridge recycling program.
E-4 - Increased Standards for Building Design and Construction	Buildings and Energy	DPW	25%	All newly constructed buildings are evaluated for LEED eligibility with the Erie Community College STEM building and the Botanical Gardens Expansion being recent examples of LEED certified projects. Smaller construction projects are subject to the NYS 2020 Energy Code to maximize energy efficiency.
L-5 - Reuse/repurpose underutilized properties for sustainability projects	Land Management	DEP	On-going	Erie County completed the construction of a 445kw solar array on the existing brownfield located at 303 Woodward Avenue. DPW and the solar contractor worked with DEC to create a plan that would minimize soil disturbance to the area.

Initiative	Sector	Lead Dept.	% complete	2020 Update
Wa-3 - Conserve Water in County Owned Buildings	Water Conservation and Stormwater	DPW	On-going (Restroom upgrades 95%)	In response to the COVID-19 pandemic, Erie County upgraded all sink faucets and bathroom flush valves to touchless fixtures. These modern fixtures have reduced the consumption of water by an estimated 6 million gallons per year.
Wa-4 - Erosion and Flooding Control using Natural or Organic materials	Water Conservation and Stormwater	DEP	on-going	<p>The Lake Erie Watershed Protection Alliance (LEWPA) has continued implementing riparian buffers in Erie County. They funded native seed mixes for WNY Partnership for Regional Invasive Species Management to reseed areas after removing invasive species to reduce erosion and prevent invasive species regrowth.</p> <p>Additionally LEWPA is conducting stream assessments that include bank assessments. Approximately 69 miles of streams in the Buffalo Creek and Cayuga Creek sub-watersheds have been mapped.</p>
S-4 - Assess Sewer Collection System Carbon Footprint	Sewerage Management	DSM	on-going	The Division of Sewerage Management is continually investing in the collection systems of the Erie County Sewer Districts to eliminate infiltration/inflow (I/I) to decrease the amount of flow that must be pumped and treated.

Acronyms

AVL	Automatic Vehicle Locator	kW	Kilowatt
AWTF	Advanced Wastewater Treatment Facility	LED	Light Emitting Diode
CASP	Climate Action & Sustainability Plan - Internal Operations	LEED	Leadership in Energy and Environmental Design
CLCPA	Climate Leadership and Community Protection Act	LEWPA	Lake Erie Watershed Protection Alliance
DEP	Department of Environment and Planning	LWE	Live Well Erie
DISS	Division of Information Support and Services	MCO2E	Metric tons of carbon dioxide equivalent
DPW	Department of Public Works	MW	Megawatt
DSM	Department of Sewerage Management	NFTA	Niagara Frontier Transportation Authority
DSS	Department of Social Services	NRI	Natural Resource Inventory
EC	Erie County	NYSDEC	New York State Department of Environmental Conservation
ECC	Erie Community College	NYSERDA	New York State Energy Research and Development Authority
ECCF	Erie County Correctional Facility	C-PACE	Commercial - Property Assessed Clean Energy
ECLIPSE	Erie County Low Income Program for Sustainable Energy	REC	Renewable Energy Certificate
ECMC	Erie County Medical Center	RFP	Request for proposals
EIC	Energy Improvement Corporation	SOP	Standard Operating Procedure
EMC	Environmental Management Council	STEM	Science, technology, engineering and math
EPC	Energy Performance Contract	SUNY	State University of New York
GBNRTC	Greater Buffalo Niagara Regional Transportation Council	SWPPP	Stormwater pollution prevention plan
GHG	Greenhouse gas	UB	University at Buffalo
HD	Heavy Duty	WFH	Work from home
HEAP	Home Energy Assistance Program	WNY	Western New York
HVAC	Heating, ventilation, and air conditioning	WNYSBR	Western New York Sustainable Business Roundtable
I/I	Infiltration/inflow	WRRF	Water resource recovery facilities
IRS	Internal Revenue Service	YD	Youth Detention